

# **Proceedings of the 9th World Congress of Behavioural & Cognitive Therapies**

**Berlin, July 17th - 20th 2019**

## **Volume I**

Research  
Applied Issues

Thomas Heidenreich & Philip Tata (Eds.)



## **WCBCT 2019 Abstracts**

The 9th World Congress of Behavioural and Cognitive Therapies, held at the City Cube, Berlin, Germany (17th to 20th July 2019) is the largest global CBT Meeting ever held.

This first volume of the Proceedings contains the abstracts of the Invited Addresses, Symposia, Open Papers and Panel Discussions as well as the abstracts of the Workshops, Clinical Roundtables and Technical Demonstrations.

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Research  
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## FOREWORD

Preparing the scientific programme for the Ninth World Congress of Behavioral and Cognitive Therapies has been a great privilege: starting with choosing the World Congress theme and the members of the scientific committee, it has included overseeing the processing of thousands of submissions and the challenge of preparing a programme that reflects the state of modern CBT. Nevertheless, the congress theme, „CBT at the Crossroads”, emphasizes the fact that within our field there are a significant number of developments that bring into question whether contemporary CBT remains a unified field or whether irreconcilable differences prevail. Equally, CBT is at the crossroads with regard to pressing global issues, including ecological and political challenges, which CBT leaders and associations need to address, both in terms of promoting a better understanding and identifying solutions for the effects of these challenges.

The WCBCT2019 scientific programme is organised around 18 streams that reflect major current areas of research and clinical practice. One highly interesting observation became apparent during the process of putting the programme together, namely that major research topics seem to have shifted in recent years: while anxiety disorders have played a major part in most of CBT's history, issues such as the treatment of post-traumatic stress disorder and emotional disturbance in children and adolescents have become more prevalent, as seen by the increasing numbers of submissions to these themes. We suspect that besides developments within the field (e.g. there maybe comparatively little to improve on already existing highly effective treatments for anxiety disorders) these changes probably also reflect changes in the world and our societies.

This first Volume of Abstracts encompasses both research and applied issues.

The Research Section includes the Invited Addresses, Symposia, Open Papers and Panel Discussions. The Invited Addresses are listed by last name of the speaker while Symposia are listed by the 18 streams of this congress and within these streams in order of appearance in the abstract book. Please note that in the symposia section, presenters are always listed in the first position (as in the final programme). If they are not the first authors of the paper, they appear again in the respective position in the list of authors.

Open Papers are sorted by each of the 31 sessions and Panel Discussions are sorted by appearance in the programme.

The Applied Section first lists the full-day and half-day invited Pre-Congress Workshops alphabetically by last name of the first presenter. In-Congress Workshops as well as Skills Classes are also sorted by last name of the first presenter while Roundtables and Technical Demonstrations are listed by appearance in the final programme.

We hope you will enjoy reading the impressive material presented at WCBCT2019.

June 2019,  
Thomas Heidenreich, Esslingen  
Philip Tata, London

## INVITED OPENING ADDRESSES

### **Cognitive Behavior Therapy at the Crossroads: Where We Have Been, Where We Are and the Challenges We Need To Face**

#### **Part I**

**Sabine Wilhelm, Harvard Medical School, USA**

While informal methods for assessing and treating mental distress existed through the ages, formal psychotherapy first began in Vienna in the 1890s with Sigmund Freud's psychoanalysis - a system of psychological theories and therapeutic techniques aiming to uncover the unconscious and at understanding unresolved conflicts from childhood. However, psychoanalytic theories and treatment techniques lacked empirical support. Thus, clinicians began to look for therapies based on sounder science. The first wave of behavior therapy occurred during the 1950s and 1960s and delivered such empirical support. Behavior therapy is based on classical and operant conditioning and differed greatly from psychodynamic therapy in its focus on modifying problems and behaviors that occur in the present. In the early 1970s the next paradigm shift occurred. During the cognitive wave, previously disregarded cognitive factors were introduced into psychotherapy. Albert Ellis and Tim Beck led the field in identifying and changing self-defeating thoughts. The integration of the first two generations of behavior therapy resulted in the conception of cognitive behavioral therapy (CBT), a treatment not only focused on behavior change but also on the modification of maladaptive cognitions (including beliefs, assumptions and expectations) of the patient. Since CBT was first developed, countless successful outcome studies across psychological disorders have been published, to the extent that "empirically supported therapies" is often used synonymously with "CBT." This is a tremendous accomplishment.

But we cannot rest on our laurels. Despite having good, empirically supported treatments, we face a wide gap in access to care. The majority of individuals suffering from a mental health problem worldwide receive inadequate clinical care or no care at all. Major barriers to obtaining empirically based interventions include the lack of trained professionals, and the cost and stigma associated with receiving mental health care. Furthermore, despite the fact that a large proportion of patients benefit from CBT, many do not respond, and even those who do improve often have significant residual symptoms at the end of treatment. To continue progressing, we need to harness advances in technology, with regard to clinician training, treatment delivery, and neuroscience, in order to develop more accessible, potent and personalized treatments.

In summary, this invited address will start with a brief review of the first two waves of CBT. I will then discuss the challenges our field is facing and will highlight the opportunities provided by advances in technology and neuroscience. Treatment development continues to progress and more recent forms of psychotherapy conceptualized as the third generation of behavioral therapies will be summarized by Susan Bögels in the subsequent presentation.

#### **Part II**

**Susan Bögels, University of Amsterdam, the Netherlands**

A crossroad means "a point at which a crucial decision must be made which will have far reaching consequences". Is CBT at its crossroads, and what crucial decisions should be taken? The world certainly is at a crossroads! Does treating anxiety disorders make sense given the state our world is in? How did therapists and scientists at the beginning of the second world war, when the world was falling apart, find meaning in their profession?

CBT cannot be seen without its context, the state of our current mental and physical health as well as the state of health care systems. Our health cannot be seen independently from the health of the world, nor independently from the context of inequality. Equally, our health cannot be seen independently from the political context. For example, Jean Twenge's research shows how societies' focus on attainment, appearance and material success goes hand in hand with the rise of mental health problems. We cannot be healthy in an unhealthy world. We cannot be free from anxiety when the world is in a threatening state.

Both mental and chronic somatic disorders, are on the rise, in adults and children. These disorders go hand in hand and exacerbate each other. The number of people needing mental health care is on the rise, as is the use of psychopharmacology. Burnout is on the rise, not only in clients, but also in their therapists.

We can control many risk factors in order to reduce our chances to develop certain diseases, but we cannot avoid the air we breathe. 90% of children worldwide are affected by air pollution, which will impact their mental and physical health. Soon one-fifth of the world population will live in areas too warm for their organs to survive, and will need to flee. And countries will close their borders. And trauma will rule, and be passed on to the next generations.

Perhaps it is in this context that third wave treatments, like mindfulness- and acceptance and commitment-based therapies, have become popular. They are more value based. What makes a life worth living? Meditation can help us realize the interdependence of all beings.

Recognizing our suffering. Connecting ourselves with others who suffer too. Cultivating compassion for suffering. Reaching a deeper understanding of the causes of suffering. More process- than goal focused. Body and mind as mutually dependent.

There is no need to abolish cost-effective treatments that can fix problems like anxiety disorders. CBT is more effective for treating anxiety disorders than mindfulness, and the first-line treatment for these conditions. Nevertheless, third-wave treatments can help understand the context of the suffering we meet in our clients, and our own suffering, and help develop inner compassion. It can help see clients as a whole, within their context, their bodies, their families, their neighborhood, the food they eat, the air they breathe. Mindfulness can help see our own reactivity to our clients and their suffering. It can help us see more clearly generally.

## INVITED ADDRESSES

### **New Developments in Schema Therapy for Personality Disorders**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

In this invited address I will focus on new developments and research findings in Schema Therapy (ST) for personality disorders. ST has become quite popular as a treatment for personality disorders and other chronic conditions, and the good effectiveness, low dropout, and high attractiveness of the model for patients and therapists might all have contributed to that. However, the basic theory underlying ST, and especially the schema mode model that is currently dominant, is not always well understood. In the first part of this contribution I will therefore first discuss the links between emotional needs, schemas, coping with schema activation, and schema modes. Based on the theory of Dweck on emotional needs, I will argue that a specific area has so far been overlooked in ST theory. I will present an extension of the theoretical model and discuss the (important) clinical implications. In the second part of this contribution I will focus on recent empirical findings on the effectiveness of ST. A recent development in Schema Therapy (ST) is the shift from individual treatment to group treatment. By using the group dynamics in a specific way, the idea is that schema change processes are catalysed. However, it is unclear what the preferred format should be: pure (or mainly) group therapy, or the combination of individual and group ST. A large international RCT (N > 480 patients) tested these two formats of group ST as treatment for Borderline Personality Disorder, and compared them to optimal treatment as usual. The very first results will be presented. More specifically, the following issues will be addressed: what was the most effective format? Which format had the lowest dropout? How to these results compare to individual ST for Borderline Personality Disorder? And, how did participants experience the treatment?

### **Couple-Based Interventions for Adult Psychopathology: Broadening the CBT Paradigm While Remaining True to Its Roots**

**Donald H. Baucom, University of North Carolina at Chapel Hill, USA**

Cognitive-behavioural therapy (CBT) principles have proven to be highly efficacious for treating a variety of psychological disorders in adults. Yet some individuals do not benefit; others relapse following treatment, and some drop out before treatment is completed. Therefore, it is important to build upon current treatment principles to address these issues and strengthen clinical interventions even further. One potential way to increase treatment effectiveness is to recognize that “individual disorders” exist in a social context. In particular, an extensive body of research findings indicate that an individual’s committed, intimate relationship such as marriage impacts and is impacted by psychological disorders. Consequently, including a partner in the treatment of adult psychopathology has the potential to harness the social context for treatment success while also addressing interpersonal factors that might interfere with optimal outcomes. The current presentation highlights the empirical background detailing the concurrent and longitudinal associations between psychopathology and relationship functioning. A conceptual framework for the various ways in which both distressed and nondistressed relationships can contribute to the precipitation, maintenance, and exacerbation of psychopathology is presented. Similarly, the routes through which satisfying relationships can serve as a resource for alleviating psychopathology are discussed. Based upon these empirical findings and conceptual framework, the rationale and format for couple-based treatments for psychopathology are described, with a focus on treating the disorder rather than emphasizing relationship adjustment as the primary goal of treatment. Three different types of couple-based interventions that can be applied to a variety of disorders are differentiated. These interventions, which are employed with both partners together, include the integration of treatment principles from individual CBT along with couple intervention strategies from cognitive-behavioural couple therapy. The presentation concludes with results of several intervention trials employing couple-based interventions, including the treatment of obsessive-compulsive disorder, anxiety disorder, binge eating disorder, and depression. Although some of these couple-based interventions for psychopathology are still in the early stages of evaluation, initial findings are encouraging when compared to individual CBT treatments. Clinical guidelines and recommendations regarding when to employ these interventions, the partial inclusion of partners in treatment, and additional treatment developments for the future are discussed. Overall, implications for the future of CBT given these developments are briefly discussed, with considerations for a proposed paradigm shift in systematically considering the interpersonal context of psychopathology in treatment.

### **The Therapeutic Relationship in Cognitive Behavior Therapy**

**Judith S. Beck, Beck Institute for Cognitive Behavior Therapy, USA**

Some clients (and therapists) bring distorted beliefs about themselves and other people to the therapy session. As a result of their genetic inheritance, their formative experiences, and the appraisal of their experiences, they develop certain “rules for living” and associated behavioral strategies, which may be adaptive in certain situations but are maladaptive in other contexts. Their dysfunctional beliefs may become activated in the context of psychotherapy and they may employ certain coping strategies which interfere with the development of a strong therapeutic alliance and with clients’ ability to benefit from treatment. Conceptualizing relevant therapy-interfering beliefs about the therapist and associated maladaptive coping strategies is fundamental to planning interventions that can not only strengthen the alliance but that also can be generalized to improve their relationships outside of therapy.

### **Pros and Cons of Transdiagnostic Thinking: Examples from the Eating Disorder Field**

**Kelly Bemis Vitousek, University of Hawaii, USA**

Transdiagnostic principles are especially salient in the eating disorder (ED) field. Fairburn’s enhanced cognitive-behavioral treatment for EDs (CBT-E; Fairburn, 2008; Fairburn et al., 2003) was among the first protocols to specify a common therapeutic approach for distinct diagnoses, based on the identification of shared maintaining mechanisms in anorexia nervosa (AN) and bulimia nervosa (BN). Moreover, symptom overlap between the EDs and other psychiatric disorders has prompted numerous efforts to import established treatment methods that address different elements of the complex symptom picture these patients present. Although the defining features of AN and BN are relatively circumscribed, EDs share space with virtually every category in the classification system, including the fear and avoidance characteristic of anxiety disorders, marked mood disturbance, obsessiveness and ritualistic behavior, “addictive” phenomena, autistic spectrum features, and near-delusional thinking. At the same time, the history of transdiagnostic efforts in the ED field illustrates the limits of selecting treatment approaches on the basis of symptom similarity. Interventions transferred from other conditions yield relentlessly disappointing results when applied to EDs. Most individuals with AN are depressed, yet antidepressant medication has no discernible benefits; although fear and avoidance are prominent, neither pharmacological nor psychological treatments targeting these elements have so far produced remission rates comparable to those attained for most anxiety disorders. Recent – and long overdue – attempts to incorporate advances in exposure therapy into CBT for EDs provide an instructive example of both the promise and perils of borrowing broadly effective techniques from other specialty areas. Although core exposure principles are likely to prove robust, it is crucial that we attend to the distinctive functional relationships that maintain avoidant and safety-seeking behaviors in the context of EDs. These disorder-specific determinants, including starvation effects and the fear of becoming less afraid, have important implications for the timing, targets, and techniques of exposure. With particular reference to AN, transdiagnostic thinking may also constrain our understanding to the extent that it encourages us to seek shared mechanisms and convergent change principles solely within the bounds of the psychiatric classification system. Some of the most striking and persistently puzzling features of AN are seldom associated with other forms of psychopathology. More apt



parallels can be located in extreme forms of overvalued, highly effortful pursuits in non-clinical populations. Continuing efforts to decode the disorder more accurately and treat it more effectively may be enhanced by transcending divisions between clinical and normal phenomena, as well as between discrete diagnostic categories.

### **Personal Practice: Why Therapists Should Walk the Talk**

**James Bennett-Levy, University of Sydney, Australia**

Should therapists have personal therapy, and/or engage in other forms of personal practice? Are there benefits? What (if any) is the impact on therapist skills? Or client outcomes? Should personal practice play a part in therapist training and professional development? Since the time of Freud, debate has raged about the value of personal practice. During the 20th century, personal practice usually meant personal therapy. Whether or not a therapist engaged in personal therapy was largely a matter of preference, belief, and choice - and which school of psychotherapy you were trained in. There was little empirical evidence for its value. However since the turn of the century, a new landscape of personal practices has emerged, together with a new wave of research. Foremost amongst these personal practices have been self-practice/self-reflection (SP/SR) programs and meditation programs for therapists. Bringing together empirical research on SP/SR programs, meditation programs and personal therapy, we can now ask a broader set of questions about personal practice such as: Are different kinds of personal practice of value for therapists - or not? Do they have a role in enhancing therapist effectiveness and client outcomes? If so, how might they be of value? With a growing evidence base and a recent theoretical model (Bennett-Levy & Finlay-Jones, 2018; Bennett-Levy, 2019), we are starting to understand rather better how learning "from the inside out" may impact on therapist skills - and in particular on the personal and interpersonal qualities of therapists. In this keynote, James Bennett-Levy will suggest that the time has come for therapists to "walk the talk" - for personal practice to play a core role in therapist training and professional development. Bringing together research on the qualities of effective therapists, and comparing outcomes from conventional training strategies with outcomes from personal practice, James will suggest that different types of personal practice can develop key aspects of therapist skill development which are beyond the scope of conventional skills training. He will further suggest that the personal and interpersonal qualities developed through personal practice are central to effective client outcomes. He will conclude that, alongside a paradigmatic shift towards more process-based therapies, it is timely for educators, therapists and researchers to include personal practices in their training and professional development, and to evaluate the impact. In particular it will be helpful to ask: which forms of personal practice are most effective for which outcomes, with which practitioners, in what contexts, at what point in time?

### **Delusions and Other Strong Beliefs**

**Richard Bentall, University of Sheffield, United Kingdom**

The problem of distinguishing between delusions and other incorrigible beliefs has taxed the greatest minds in psychopathology, and seems ever more important in an age of extreme ideology. Clinically, this problem leads to difficulties in deciding who should be the recipient of mental health care, especially in the forensic domain, in which professionals often fail to decide on whether a particular person (Ron and Dan Lafferty in the United States, Anders Breivik in Norway) is mentally ill. Standard criteria (e.g. that delusions are resistant to counter-argument and are "ununderstandable") either do not stand up empirical scrutiny or collapse in the face of counter-examples (e.g. sudden religious conversion). A major element of the problem is that there is no agreed understanding of 'belief' against which delusions can be compared. This lacuna is remarkable, given that beliefs are thought to play a central role in all types of psychopathology (not just psychosis, but, for example, depression and anxiety disorders) and, indeed, all of the social sciences (not just psychology but sociology, anthropology, and history). In this talk I will draw together evidence from a wide range of sources (including human learning theory and political psychology) to sketch out a two-process account of belief. I will describe a set of Master Explanatory Systems which include conspiracy theories, religious beliefs, supernatural beliefs and (arguably) political ideologies, which share common characteristics with delusional (especially paranoid) beliefs. Using recent survey evidence I will show that these beliefs exist along continua with less extreme beliefs, and that they are the consequence of the dominance of type-1 (associative, emotional) reasoning over type-2 (slow, analytic reasoning). Using data from psychiatric patients I will describe parallel findings for clinical paranoia. The only distinguishing feature of delusions seems to be that they are idiosyncratic, possibly reflecting social isolation and/or an inability to calibrate beliefs according to response from others. I will conclude by discussing implications for clinical practice, public mental health and (briefly) current world events.

### **Adapting CBT to Help Millions in Low and Middle Income Countries**

**Richard Bryant, University of New South Wales, Australia**

War, natural disaster, and humanitarian crises are a major global issue, disproportionately affecting people in low and middle income countries (LMICs). Most people in need of mental health interventions in LMICs do not receive appropriate care because of lack of resources, including having few mental health specialists. This review will outline a recent pattern of 'task-shifting', in which evidence-based strategies are delivered by lay providers who are trained to deliver mental health programs. This review will highlight recent initiatives by the World Health Organization to develop cognitive behavioral programs that are brief, transdiagnostic, and can be readily trained to lay providers with no mental health experience. These programs are underpinned by a focus on change mechanisms that have been chosen on the basis of evidence of treating common mental disorders. Randomized controlled trials will be described that have tested these interventions in adults and youth. Further, attempts to implement these programs into existing health services will be outlined, with the goal of demonstrating the importance of local capacity building to promote sustainability of evidence-based care in LMICs. Limitations of this approach will also be described and challenges this endeavor faces in the future will be explained, including the need to address more persistent and complex mental disorders that arise from trauma and adversity.

### **Integrating CBT, Schema Therapy and Mindfulness into a Trans-Diagnostic Self-Healing Programme: An Asian Perspective**

**Younghee Choi, Metta Institute and Inje University, South Korea**

As the Fellow of ACT (Academy of Cognitive Therapy) and ISST (International Society of Schema Therapy) certified Schema therapist, the presenter tried to develop Trans-diagnostic Integrated Psychotherapy. The presenter started from the cognitive model based on Aaron Beck's cognitive theory and tried to assimilate different theories and techniques among the existing evidence-based psychotherapies. With cognitive behavioral therapy, several thousands of my patients learned how to solve their own problems as the self-therapist, but still there were many patients do not respond well to CBT and we call them treatment-resistant cases who usually have co-morbid problems, especially personality disorders. Studies about personality disorders showed that unique schemas were developed from the combination of childhood experiences and emotional temperaments. Contents of these schemas (core beliefs) produce automatic thoughts in specific situation and these automatic thoughts were not responding well to CBT. That was why schema focused therapy was developed, especially by Jeffrey Young. With Schema Therapy, the presenter could help more patients with Personality Disorder who did not respond well with CBT. Even though with powerful effectiveness of schema therapy, the presenter still needed something more to help patients who were suffering from unchangeable problems. Naturally, the presenter found a "third wave" of cognitive and behavioral therapies, including ACT (Acceptance and Commitment Therapy) and MBCT (Mindfulness Based Cognitive therapy), which expanded the concepts to other disorders and/or added novel components and mindfulness exercises. The presenter owed a lot from Jon Kabat Zinn for learning mindfulness. Through this lecture, the presenter will introduce CASH (Change and Acceptance Self Healing) program which is based on the integration of CBT, schema therapy,

and mindfulness approaches and show the effectiveness of CASH program with the result of investigated symptoms of depression and anxiety along with the changeability of thoughts and attitudes after completion of 6-sessions of CASH program. In the heart of the entire group format therapy in Metta Institute includes 6 weeks of CASH program. After patients completed group CBT, patients are re-evaluated and much improved patients who acquired various therapeutic skills would stop therapy. Patients who needed more treatments would enter the individual sessions of schema therapy that would last one to three years with weekly or bi-weekly sessions. Some patients needed mindfulness training would receive 8 weeks of Vipassana Meditation class. For the past 30 years, I worked with my patients, students, colleagues, and supervisors. When I had encountered obstacles, those were challenging problems that I need to find out solutions.

### **Realising the Mass Public Benefit of Evidence-Based Psychological Therapies**

**David M Clark, University of Oxford, United Kingdom**

Evidence-based psychological therapies have been developed for many mental health problems and surveys show that the public prefer psychological therapy to medication in a 3:1 ratio. However, in no country does the public get what it wants. Psychological therapies are only available to a small number of people and attempts to make them more widely available have been hampered by a shortage of suitably trained therapists and the high costs of traditional delivery models. The English IAPT programme aims to get round these problems by training an extra 11,000 new psychological therapists and deploying them in specialist, stepped care psychological therapy services for anxiety disorders and depression which can be accessed by self-referral. From small beginnings in 2008, the programme has grown to a point where it treats over 560,000 per year. A session by session outcome monitoring system ensures that clinical outcome data is available on 99% of treated patients. In the interests of public transparency, the outcomes of all IAPT services are available on the worldwide web. Study of the variability of outcomes between services has helped to identify many organizational and other factors that are associated better outcomes. This information has been feedback to services and has helped 1) reduce variability and 2) achieve overall outcomes in a mass implementation that are broadly in line with those observed randomized controlled trials. Currently, around 7 in every 10 (68%) treated individuals show reliable and substantial reductions in their symptoms. In around 5 in every 10 (52%) the reductions are large enough for an individual to be classified as recovered. These outcomes have encouraged the UK government to commit to doubling the size of IAPT by 2024. This talk explains how a combination of political lobbying, economic analyses and clinical data were used to gain an initial government commitment to start the IAPT programme. It then goes on to explain how the programme achieves its remarkably high data completeness rates, before discussing the many things the complete data has taught us about how to deliver psychological therapies at scale and economically. Despite its successes, IAPT is a work in progress. Limitations of the programme are discussed, along with likely future developments, including greater use of digitally assisted assessment, therapy, and follow-up. Development of IAPT-like services in several other countries is also discussed.

### **Addictions: Cognition and Behaviour Within a Social Context**

**Alex Copello, Birmingham University, United Kingdom & Emma Griffith, University of Bath, United Kingdom**

Traditional attempts to help those with problems with alcohol and drugs primarily remain focused on the individual and individual characteristics of the user, and are mostly either biological or psychological in nature. Some cognitive approaches could be said to fall within this category. This predominant focus on the individual is in contrast with the well-established fact that behaviours and cognitions occur within a social context. The most immediate social environment of alcohol and drug users includes their family members and close friends. The latter two groups of people (i.e. family members or close friends) commonly suffer significant and sustained stress that often leads to psychological and physical problems for themselves. Paradoxically and in contrast they have the potential to provide key support for a positive change in the addictive behaviour of the user. The nature of addiction problems tends to complicate interactions between the user and their social network and this often leads to isolation of the substance user and uncertainty in the close social network. A social psychological view of addiction sees those with alcohol and drug problems within a social context that can both experience negative impacts resulting from the problem use and yet the same social environment can positively affect and influence the course of change. The present talk will review the literature on both the impact of substance use on family and wider social networks followed by the potential impact of social support on behaviour change processes. Two developed and researched interventions, their associated theoretical models and their components will be used to illustrate some of the challenges of incorporating the social context into psychological interventions. The first is the Five Step intervention which aims to help those families affected in their own right through a series of counselling sessions using cognitive and behavioural strategies. The second Social Behaviour and Network Therapy on the other hand aims to help those with the alcohol or drug problem by identifying, developing and enhancing social support for a change in the substance consumption behaviour. Both are psychology based, structured yet flexible and will be briefly described. It is argued that too much emphasis on the individual psychology of the user at the expense of a wider social focus may limit the impact of interventions and sustainability of behaviour change over time after treatment.

### **Neuroscience Driven Approaches to Cognitive and Behavioural Therapy for Anxiety and Depression**

**Michelle Craske, University of California, USA**

The keynote will address ways in which advances in the neuroscience of defensive and appetitive motivational systems inform psychological treatment development. Within the defensive system, discussion will focus upon translation from the basic science of inhibitory extinction learning and inhibitory regulation for increasing response rates and reducing contextual return of fear. Latest data regarding pharmacological attenuation of contextual specificity will be presented. Within the appetitive system, discussion will focus upon evidence of deficits in neural and behavioural indices of reward sensitivity in depression and anxiety. Latest data regarding the outcomes from a new transdiagnostic treatment approach designed to enhance reward anticipation/motivation, reward attainment and reward learning will be presented.

### **Identifying Psychotherapy Processes and Mechanisms Using the Tools of Precision Medicine**

**Robert J. DeRubeis, University of Pennsylvania, USA**

Over the past decade the research literature on precision mental health has evolved from rare and obscure to prominent and promising. The primary aim of research in this area is to develop tools that will increase the effectiveness and efficiency of treatments for mental health problems. Although the algorithms that demonstrate predictive utility are treated as “black boxes,” a look inside the boxes can stimulate focused efforts to identify the processes and mechanisms that account for treatment success or failure for each individual who engages in an evidence-based treatment. The speaker will first illustrate a scheme that depicts two sources of heterogeneity that any powerful explanatory system will need to account for: (a) differences along a dimension of prognosis, from those very likely to improve with little if any treatment to those unlikely to improve even with the most powerful treatment; and (b) differences in regard to which treatments – and elements within a treatment – are those that will maximize a given patient’s likelihood of experiencing sustained improvement. Several empirical investigations – some published, some in earlier stages – will be used to exemplify this approach to the study of processes and mechanisms. In a randomized trial of treatments for Panic Disorder, baseline characteristics that predicted differential benefit from CBT and a panic-focused psychodynamic therapy pointed to the possibility that different mechanisms of change were at work in the two treatments. Using this information, we found that patients entering treatment with a greater tendency toward catastrophic interpretations of bodily symptoms experienced greater benefit from improvement in catastrophic interpretations, whereas patients with a lesser tendency to catastrophize did not

experience more symptom improvement when they experienced these changes. In a relapse prevention trial comparing antidepressant continuation vs. ADM discontinuation+MBCT in patients who remitted while on medication treatment, we found several baseline variables that, collectively, contributed to the prediction of which preventative approach would be optimal for any given patient. Changes in those variables observed from baseline to 12 weeks (post-treatment) were associated with resistance to relapse across the 2-year follow-up period, and they largely accounted for the predicted differential benefit from the treatments. Other examples of this approach will be described that have been used to identify which patients are most likely to benefit more from a stronger vs. a weaker treatment, and which patients are most likely to benefit from a high positive therapeutic alliance.

### **Partnerschaft und Gesundheit: Psychobiologische Vermittler und Implikationen für die Therapie**

**Beate Ditzen, Universitätsklinikum Heidelberg, Deutschland**

Partnerschaften haben einen bedeutenden Einfluss auf die psychische und körperliche Gesundheit und sogar auf das Überleben des Einzelnen. Dieser Einfluss wird über psychobiologische – u.a. über hormonelle – Mechanismen vermittelt. Es stellt sich also die Frage, wie Hormone in konkreten Paarinteraktionen wirken und umgekehrt – ob und wie das Paarverhalten einen Einfluss auf Hormone hat. Tatsächlich deutet unsere Forschung darauf hin, dass positive Paarinteraktionen einen Einfluss auf die Stresssysteme des Körpers und spezifisch auf zentralnervöse Belohnungsmechanismen haben. Im Gegenzug kann Paarkonflikt die körperliche Stressreaktion steigern. Hier setzt die psychobiologische Evaluation unserer Interventionen an; so konnte z.B. Paarkommunikationstraining die hormonelle Antwort auf einen Konflikt senken. Auf neurobiologischer Ebene wurden diese Effekte in letzter Zeit mit dem Neuromodulator Oxytocin in Verbindung gebracht, welchen wir in experimentellen und alltagsbasierten Studien Paaren untersuchen, um so die Effekte auf die Interaktion im realen Interaktionsumfeld zu erfassen. Im Beitrag werden die aktuellen Ergebnisse dieser Studien aus Labor und Alltagsmessungen im Zusammenhang mit unterschiedlichen Gesundheitsparametern vorgestellt und die neuroendokrinen Mechanismen der Paarinteraktion im Hinblick auf Geschlechtsunterschiede und die spezifische Phase einer Partnerschaft diskutiert. Implikationen für die Psychotherapie und Beispiele aus der klinischen Arbeit mit Paaren schließen den Beitrag ab.

### **Posttraumatische Belastungsstörungen effektiv und effizient behandeln**

**Anke Ehlers, Oxford University, Vereinigtes Königreich**

Verschiedene psychologische Therapieprogramme haben sich in der Behandlung der Posttraumatischen Belastungsstörung bewährt (siehe z.B. American Psychological Association, 2016). Ihnen ist gemeinsam, dass sie auf Veränderungen in problematischen Kognitionen abzielen, insbesondere auf Veränderungen in individuellen Bedeutungen des Traumas und Merkmalen des Traumagedächtnisses. Der Vortrag diskutiert am Beispiel der Kognitiven Therapie der PTBS (Ehlers & Clark, 2000), wie effektive und empirisch begründete Behandlungsansätze entwickelt werden können. Sieben randomisierte Therapiestudien belegen die Wirksamkeit und hohe Akzeptanz der Behandlung bei Erwachsenen und Kindern / Jugendlichen. Drei weitere Studien fanden sehr hohe Effektstärken in der therapeutischen Routineversorgung. Trotz dieser Fortschritte ist weitere Forschung nötig, zum Beispiel, um zu ergründen, warum eine signifikante Minderheit der Behandelten nur mäßige Verbesserungen erreicht. Neuere Studien untersuchen die Veränderungsprozesse in der Therapie und fanden, dass therapeutische Effekte durch Veränderungen in problematischen individuellen Bedeutungen des Traumas, Merkmalen des Traumagedächtnisses und aufrechterhaltenden kognitiven Strategien vermittelt werden. Die PTBS ist eine häufige Störung und viele Betroffene haben zur Zeit keinen Zugang zu psychologischer Behandlung. So stellt sich die Frage, ob die Therapie durch Materialien zum Selbststudium oder Internet-Therapie effizienter gemacht werden kann, so dass mehr Betroffenen Behandlung angeboten werden kann. Eine kontrollierte Therapiestudie zeigte, dass Kognitive Therapie und speziell entwickelten Modulen, die die Patienten zu Hause bearbeiteten, in der Hälfte der Therapiesitzungen ebenso erfolgreich behandelt werden konnte wie in der Standardtherapie. Die Materialien werden online (<https://oxcadatresources.com>) zur Verfügung gestellt werden. Eine Pilotstudie fand außerdem, dass internet-basierte Kognitive Therapie für PTSD vergleichbar gute Effekte wie die Standardtherapie hatte und die Effizienz der Behandlung und den Zugang weiter erhöhen könnte.

### **Transdiagnostische Ansätze zur Behandlung psychischer Störungen: Chancen und Herausforderungen**

**Thomas Ehring, LMU München, Deutschland**

Seit einigen Jahrzehnten werden Forschung und Praxis der Psychotherapie durch störungsspezifische Theorien und Therapiekonzepte dominiert. Dieser Ansatz ist zweifellos sehr erfolgreich und hat Entwicklung hochwirksamer evidenzbasierter Therapien geführt. Gleichzeitig wird zunehmend deutlich, dass der störungsspezifische Fokus auch Nachteile hat. In den letzten Jahren ist ein Trend hin zu transdiagnostischer Forschung und Therapie zu beobachten, d.h. es findet eine zunehmende Beschäftigung mit Prozessen statt, die über Störungsgrenzen hinweg bedeutsam sind. Im Vortrag werden zunächst aktuelle transdiagnostische Konzepte der Psychotherapie vorgestellt, gefolgt von einer kritischen Betrachtung der Vor- und Nachteile im Vergleich zum störungsspezifischen Paradigma. Als konkrete klinische Beispiele werden dabei exemplarisch zwei Themenbereiche aus der eigenen Forschung genauer beleuchtet: die Therapie von Traumafolgestörungen auf der einen Seite sowie die Behandlung repetitiven negativen Denkens (Sich-Sorgen, Grübeln) auf der anderen Seite. Der Vortrag schließt mit einem Rahmenmodell, das die Integration störungsspezifischer und transdiagnostischer Ansätze in Forschung und klinischer Praxis ermöglicht und die Kombination der jeweiligen Stärken beider Ansätze zum Ziel hat.

### **The Clinical Role of Wellbeing Therapy**

**Giovanni A. Fava, University at Buffalo, USA**

A specific psychotherapeutic strategy for increasing psychological well-being and resilience, well-being therapy (WBT) has been developed and validated in a number of randomized controlled trials. The findings indicate that flourishing and resilience can be promoted by specific interventions leading to a positive evaluation of one's self, a sense of continued growth and development, the belief that life is purposeful and meaningful, the possession of quality relations with others, the capacity to manage effectively one's life, and a sense of self-determination. A decreased vulnerability to depression, mood swings, and anxiety has been demonstrated after WBT in high-risk populations. Its updated scope encompasses increasing resilience in a variety of psychiatric and medical conditions, modulating psychological well-being and mood, developing alternative pathways to established treatment modalities, including psychotropic drugs. An important characteristic of WBT is self-observation of psychological well-being associated with specific homework. Such perspective is different from interventions that are labelled as positive but are actually distress oriented. Another important feature of WBT is the assumption that imbalances in well-being and distress may vary from one illness to another and from patient to patient. The WBT manual has been translated in many languages and studies are in progress all over the world.

### **Evolution, Attachment and Compassion Focused Therapy**

**Paul Gilbert, University of Derby, United Kingdom**

Cognitive behaviour therapists have always recognised that many of our dispositions for certain kind of goals and motives (to avoid harm, to connect with others, develop attachment relations with the young and partners) along with our emotions and ways of thinking, are rooted in evolved mechanisms (Beck 1983; Beck et al., 1985, Marks 1987). This talk will outline how the evolution of attachment and other prosocial motives and behaviours created brain processes that are central to the regulation of emotion, and prosocial versus antisocial behaviour. In addition, it will outline how compassion focused therapy evolved out of CBT and has now been integrated into CBT. Attention will also be

given to some of the central practices of compassion focused therapy which are designed to stimulate these internal physiological systems and create a compassionate mind. Developing a compassionate mind and that self-identity then becomes a central therapeutic aim which is used to address kind difficulty such as self-criticism shame and trauma.

### **Personalizing Cognitive and Behavioural Treatments for Depression: The Crossroads of Basic and Applied Research**

**Kate Harkness, Queen's University, Canada**

Worldwide, major depressive disorder affects 300 million people and is the single largest contributor to global disability. The estimated cost of depression to the global economy is US\$1 trillion per year, which exceeds the costs associated with cardiovascular disease or cancer. These costs are so high, in part, because of our failure as a field to get more people well and keep them well. Despite over 50 years of rigorous research in the development and implementation of cognitive, behavioural, and pharmacological treatments, remission rates are still unacceptably low and relapse and recurrence rates are unacceptably high. As such, depression remains for many people a chronic or highly recurrent disorder over the life-course. One of the greatest challenges in the treatment of depression is how to address the great heterogeneity of etiological factors, pathological markers, and syndromal expressions associated with the disorder. In this talk I will discuss results from basic research parsing this heterogeneity that are being used to inform a personalized approach to the treatment of depression. The promise of personalized medicine is to increase effectiveness and cost-effectiveness by offering treatment at the outset that has the highest likelihood of success, with the ultimate goal of preventing the enormous personal and societal burden of this disorder. Specifically, I will present data from several groups worldwide, including preliminary data from the Canadian Biomarker Integration Network in Depression (CAN-BIND), that are using markers at the neurobiological, psychological, and social-environmental levels of analysis to differentially predict response within and across psychological and somatic treatments. In doing so, I will also address how this research informs a deeper understanding of the nature of depression itself.

### **Developing Transdiagnostic CBT Treatments for Better Practice**

**Allison Harvey, University of California, USA**

Psychological disorders remain common, chronic and difficult to treat. Progress toward developing effective interventions must include the identification of novel intervention targets that are safe, powerful, inexpensive and deployable. This talk will describe two novel intervention targets and address approaches proposed to hasten progress including (1) the use of science to derive and disseminate treatments and (2) targeting treatment at a transdiagnostic process. The first intervention target that will be described is sleep and circadian dysfunction. Persistent sleep and circadian dysfunction is associated with functional impairment, mood regulation and problem solving difficulties, increased work absenteeism, higher health-care costs and heightened risk of developing future comorbid health and psychiatric conditions. Sleep and circadian problems are important transdiagnostic targets as (1) various types of sleep and circadian dysfunction coexist with, predate and predict psychological disorders, (2) sleep and circadian dysfunction contributes to vicious cycles in psychological disorders and (3) it is clear that sleep and circadian dysfunction is modifiable. An observation that underpins our approach is that prior research has tended to treat specific sleep problems (e.g., insomnia) in specific diagnostic groups (e.g., depression). Yet real life sleep and circadian problems are often not so neatly categorized, particularly in psychological disorders where features of insomnia often overlap with delayed sleep phase, irregular sleep-wake schedules, and even hypersomnia. In the hope of addressing this complexity, the Transdiagnostic Intervention for Sleep and Circadian Dysfunction (Trans-C), was developed. Evidence from two recently completed RCTs involving high-risk youth and adults diagnosed with severe mental illness will be described. The latter was conducted in community mental health settings, which are publicly funded, under resourced and provide treatment to poor and underserved community members. The second intervention target that will be described is patient memory for the contents of treatment. This target is important as poor memory for treatment is associated with worse treatment outcome. Data will be presented on the development and outcome from an approach to improving memory for treatment; namely, the adjunctive Memory Support Intervention. The Memory Support Intervention was distilled from the basic, non-patient research in cognitive science and education and is comprised of eight powerful memory promoting strategies that are proactively, strategically, and intensively integrated into treatment-as-usual.

### **The Early Emergence of Mental Health Inequalities in Children with Intellectual Disabilities: Implications for Intervention and Family Support**

**Richard Hastings, University of Warwick, United Kingdom**

Children and adolescents with intellectual disabilities are 4-5 times more likely than children without intellectual disabilities to have mental health problems. At a population level, these children account for a large minority of all cases of mental health problems in young people. Thus, children with intellectual disabilities are a priority for mental health policy and interventions and we need to consider why they are at risk for mental health problems and what can be done to address this mental health inequality. Research data suggest that an increased risk for mental health problems emerges early in the lives of children with intellectual disability – at least by age 5. Also, environmental, social and psychological risk factors for mental health problems in children are more likely to affect children with intellectual disability. The main focus of this presentation is to present research, including new data, on the early development of behavioural and emotional problems in children with intellectual disability. In particular, family poverty, parental mental health, and parenting play a role in the development of mental health problems in children with intellectual disability. Implications of these research findings for early mental health intervention and support for families will be discussed.

### **The Scientific and Practical Implications of Process-Based CBT**

**Steven C. Hayes, University of Nevada, USA**

As the “protocols for syndromes” era of evidence-based therapy passes away, a process-based alternative is rising in its place. As it does so, a number of practical and scientific challenges are coming to the fore in the behavioral and cognitive therapies. Fundamental changes are needed in research, research strategy, training, assessment, diagnosis and application in order to take full advantage of the opportunities for advancement provided by process-based CBT. In this talk I will enumerate several of these challenges and show how profound their implications are for our field, and its role in the behavioral and life sciences more generally. Among the challenges I will address are:

- a weak knowledge base in the area of processes of change; a cacophony of so-called transdiagnostic processes and models;
- inadequacies in basic knowledge and poor guidance by the helping professions in redressing them;
- the methodological inadequacy of mediation as a means of identifying processes of change;
- assessment quality standards based on the wrong questions and wrong level of analysis;
- the toxic long term social and scientific effects of the latent disease model that our dalliance with the DSM produced;
- poor assessment of contextual variables;
- protocol focused training and certification approaches to competence; and
- weak linkages to the life sciences generally.

As I will attempt to show, all of these problems are solvable, but not without modifications of current practices. The behavioral and cognitive therapies have an exciting future ahead if we are able to rise to the challenges our process-based future presents.

## **Moderne KVT**

**Stefan G. Hofmann, Boston University, USA**

Die kognitive Verhaltenstherapie (KVT) beschreibt eine Familie von Interventionen und eine allgemeine wissenschaftliche Herangehensweise an psychische Probleme. KVT entwickelte sich aus einem spezifischen Therapiemodell heraus in einen reifen und empirisch unterstützten Behandlungsansatz, der eine Vielzahl von störungsspezifische Interventionen und Behandlungstechniken beinhaltet. Diese Behandlungsform ist ohne Zweifel eine der grössten Errungenschaften der modernen Therapieforschung. Zugleich hat sich die KVT im Laufe der Zeit aufgrund der engen Anlehnung an das DSM, zu einer Syndrom-fokusierte Behandlungsform entwickelt. Das zugrundeliegende latente Krankheitsmodell ist allerdings sowohl aus theoretischer als auch aus praktischer Sicht äusserst problematisch. Eine Alternative hierzu ist, dass menschliche Probleme ein komplexes Netzwerk bilden, welche sich dann als sogenannte psychiatrische Störung darstellen. Dieses Netzwerk von Problemen kann perturbiert werden, indem effektive Interventionen spezifische Prozesse angehen. Diese Perspektive ist mit moderner Evolutionswissenschaft kompatibel und bildet ein klinisch-relevante System zur Beschreibung und Behandlung von psychologischen Problemen. Ich werde argumentieren, dass diese Vorgehensweise die Zukunft der klinischen Psychologie ist.

## **Mental Imagery and Mental Health: CBT and Reflecting on Psychological Treatments Research**

**Emily A. Holmes, Uppsala University, Sweden**

Mental imagery provides an experience like perception in the absence of a percept, such as “seeing in our mind’s eye. Psychology is described as the science of mental life - and our inner images have a powerful impact on our emotion, motivation and behaviour. Although they can be fleeting and elusive, our research methods to investigate imagery are advancing. Better understanding mental imagery offers insights to improve our treatments. Intrusive image-based memories can “flash backwards” to past trauma, for example in post-traumatic stress disorder (PTSD). Mental images allow us to time travel and can also “flash forwards” to the future, such as those can occur related to suicide or in bipolar disorder. Indeed, intrusive, affect-laden mental images can cause distress across mental health disorders. My clinical research group has an interest in understanding and treating maladaptive mental imagery via psychological therapies. To do this, we are curious about what we can learn from cognitive psychology and neuroscience to inform novel treatment development. Two main areas will be discussed – bipolar mood instability and intrusive images after trauma. First, we will discuss ideas using face-to-face psychological treatment techniques, with reference to imagery-focused cognitive therapy for mood instability in bipolar disorder, and developing a clinical manual (Holmes, Hales, Di Simplicio, & Young, 2019). Second, we will discuss more novel intervention approaches and the idea of working with intrusive images of trauma using concurrent tasks rather than talking therapy per se, while moving ideas between the lab and the clinic. This is a “world congress of CBT” and to reach the scale of mental health “world-wide” we will need (among other things) mental health science to help us improve our treatments. A broader vision for science-informed psychological treatment innovation will be explored (Holmes, Ghaderi et al, 2018, Lancet Psychiatry).

## **Cognitive-Behavioral Approaches to Social Anxiety: Our Growing Edges**

**Debra A. Hope, University of Nebraska-Lincoln, USA**

Fifty years ago David Watson and Ronald Friend published their seminal paper in Journal of Consulting and Clinical Psychology on the assessment of social anxiety that included two scales: the Social Avoidance and Distress Scale and the Fear of Negative Evaluation Scale. They identified that the experience of individuals with social anxiety is multifaceted, distinguishing between subjective emotional distress and behavioral avoidance of anxiety-provoking situations. Watson and Friend conceptualized fear of negative evaluation as a key motivation in social anxiety. This conceptual scheme has held up surprisingly well over five decades and will guide an exploration of contemporary work on social anxiety in adults. Technological advances such as ambulatory psychophysiological monitoring, computerized assessment of eye movement and other attentional processes, and apps to track location and emotion provide fine-grained data to test theories and refine interventions. Advances in theories of learning and emotion have transformed our understanding of cognitive behavioral treatment mechanisms. Finally, our growing understanding of the importance of cultural context challenges us to re-evaluate our approach to research, assessment, and intervention to meet the needs of all people. Watson and Friend could hardly have imagined the body of research on social anxiety that exists today. What questions might the next generation of clinical scientists tackle in a changing social world of emojis and online social relationships?

## **Improving CBT Interventions for Young People with Anxiety Disorders**

**Jennie Hudson, Macquarie University, Australia**

Anxiety Disorders are the most common mental disorders and are the first to appear, more often than not in childhood. We have made considerable progress over the past 25 years showing, most notably, that cognitive behavioural therapy (CBT) is an effective treatment for childhood anxiety disorders. With a remission rate of around 60%, we do not yet know what modifications are needed to extend the efficacy of treatment to all children. Non-responders continue to be at risk for mental health problems across the lifespan, and thus the importance of improving treatments cannot be overstated. This talk will highlight what we know about predictors and moderators of treatment and explore possible models for improving mental health care for this often overlooked group of children.

## **Transcultural Aspects of Cognitive and Behavioural Therapy: a Moroccan Example**

**Nadia Kadri, Institut Marocain de Thérapie Cognitive et Comportementale, Morocco**

The United Nations agency UNESCO has defined culture as the “set of distinctive spiritual, material, intellectual, and emotional features of society or a social group, and that it encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs.”

However, as a therapist, in our daily clinical practice we notice that:

- patients from different cultures are sometimes closer by their personal specificities than patients from the same culture.
- the therapeutic relationship between patient and therapist transcends cultural specificities.
- the biological and psychological fundamentals transcend cultural particularities.

This presentation will address the following topics:

1. Culture, its components and specificities on Moroccan culture with their implication on mental health, its trouble and care. This will be based on studies conducted in the field.
2. CBT as an empirical, experimental model that has been developed in Western culture and is spreading throughout the world. This fact raises the following questions, especially in the non-Western world:
  - what cultural factors require management of CBT?
  - what are the transcultural fundamentals of CBT?
  - how to integrate cultural factors in CBT?
3. In order to propose answers to these questions, we present the results of a study carried out over several consecutive years concerning the CBT practice of Moroccan therapists.

## **Achtsamkeit, Mitgefühl & Co: Psychopathologie und Training des sozialen Gehirns**

**Philipp Kanske, Technische Universität Dresden, Deutschland**

Soziale Interaktion mit anderen Menschen, ist für viele Personen mit psychischen Störungen eine besondere Herausforderung. Der Vortrag fragt danach, welche emotionalen und kognitiven Prozesse soziale Interaktion ermöglichen – Empathie, Mitgefühl und Perspektivübernahme. Im Gehirn sind hier spezialisierte Netzwerke aktiv, die uns zum Einfühlen und Eindringen in andere befähigen und die direkt mit der Fähigkeit uns prosozial zu verhalten zusammenhängen. Bei mehreren psychischen Störungen und über die Lebensspanne hinweg verändern sich diese Prozesse, was mit Problemen im Sozialverhalten einhergehen kann. Der Vortrag beleuchtet Möglichkeiten zum Training sozialer Emotion und Kognition mittels Methoden aus dem Spektrum der Achtsamkeits- und Mitgefühlsmeditation.

## **Beyond CBT: The Primacy of Emotional Change**

**Merel Kindt, University of Amsterdam, the Netherlands**

Current psychological and pharmacological treatments for disorders of emotional memory only dampen the affective response while leaving the underlying fear memory intact. Under adverse circumstances, these original memories regain prominence, causing relapses in many patients. The (re)discovery in neuroscience that upon retrieval consolidated fear memories may return to a transient labile state, requiring a process of restabilisation in order to persist, offers a window of opportunity for modifying fear memories with amnesic agents. Observations of post-retrieval amnesia for learned fear in animals have generated a novel and influential hypothesis on the plasticity of memory, usually referred to as memory reconsolidation. The clinical potential of pharmacologically disrupting the process of memory reconsolidation has sparked a wave of interest into whether this phenomenon can also be demonstrated in humans, and ultimately harnessed for therapeutic purposes. Here I will outline how fundamental studies of learning and memory have moved the field forward from a focus on extinction learning to the prospect of a revolutionary treatment for emotional memory disorders. Instead of multiple or prolonged sessions of cognitive behavioural treatment or daily drug intake with a gradual decline of symptoms, it involves one single instance of treatment that leads to a sudden – albeit delayed – decline in fear. The reconsolidation intervention is furthermore in stark contrast with a fundamental tenet of CBT: a cognitive change is not required for the reconsolidation intervention, and when a cognitive change already takes place during the reconsolidation intervention, this actually poses a boundary condition for the treatment. The reconsolidation intervention also represents a shift in the use of pharmacological agents to alleviate symptoms. It involves just one single administration of a very common drug (i.e., propranolol) given in conjunction with memory retrieval (i.e., brief exposure) during a specific time window. Even though basic science in animals and humans suggests that we are on the verge of a breakthrough in fundamentally changing emotional memories, the necessary and boundary conditions for targeting and disrupting memory reconsolidation in clinical practice are largely unknown. There is likely no universally effective retrieval procedure for clinically significant emotional memories to trigger memory reconsolidation, and the impact of subtle boundary conditions observed in basic science compounds this issue. Understanding the critical conditions to trigger memory reconsolidation in clinical practice is one of the greatest challenges to be addressed before we can witness a paradigm shift in the treatment of emotional memory disorders.

## **YOU Are Not Supposed to Feel that Way: Making Room for Difficult Emotions**

**Robert Leahy, American Institute for Cognitive Therapy, USA**

Much of CBT has focused on helping individuals get rid of unpleasant emotions—especially anxiety, sadness, and anger. But a life worth living often involves experiencing unpleasant emotions that are often complex emotions. Emotional Schema Therapy emphasizes that all emotions evolved because they were adaptive—including emotions that we are often told we should not have. These include jealousy, envy, ambivalence, boredom and regret. In addition, many of us struggle with Emotional Perfectionism and Existential Perfectionism—that is, the belief that we should feel good and that our lives should follow certain expectations that we have. But real life is filled with disappointments, loss, unfairness, and even betrayal. Just as people with OCD struggle with unwanted intrusive thoughts or people who ruminate look for “The Answer”, we often struggle to rid ourselves of unwanted feelings. In this presentation I describe a model of emotional inclusiveness, containment of unpleasant emotions, normalization of “the abnormal”, and the use of these emotions to differentiate the values and meanings that we have. I describe both the biological and the social constructivist models of emotions, recognizing that at different times in history and in different cultures people had different theories and evaluations of emotions. Of particular focus in this presentation is the role of jealousy, envy and ambivalence, problematic emotion theories and responses and possibly helpful strategies about how to cope with these inevitable and sometimes difficult experiences. Finally, I describe strategies for deepening meaning without avoiding the unpleasant emotions often associated with finding meaning.

## **Taking Care of Those Who Care: Targets and Strategies in CBT for Distressed Dementia Family Caregivers**

**Andres Losada, King Juan Carlos University, Spain**

The number of people suffering Alzheimer or related dementias is growing significantly worldwide. Through the long and changing journey of dementia, persons suffering the illness need supervision and care (even for 24 hours a day) for many demanding tasks. That care is usually provided by a family member. These facts help to understand why dementia family caregiving has been described as a prototypical example of chronic stress, and a natural experiment of extreme stress. Caregivers usually report high levels of depressive symptomatology and anxiety, as well as other emotions such as guilt or ambivalence. Physical health problems, such as elevated blood pressure, are also observed in this population. Research has shown the importance of several cultural, cognitive and behavioural factors in the explanation of caregivers' distress. Drawing upon recent developments in theoretical and intervention studies in the caregiving field, including experimental and longitudinal studies, in this lecture I will introduce an integrated model explaining how several key variables, such as cultural values, dysfunctional thoughts, experiential avoidance, cognitive fusion, or emotional ambivalence and guilt, contribute to caregivers' distress. Also, I will discuss how these dimensions can be targeted through interventions specifically designed to respond to each caregiver's individual needs, as assessed through specific measures or procedures. I will describe some CBT and contextual techniques (strategies and exercises) that we have adapted or developed for addressing these targets in this population. These strategies will be described in the context of several research intervention projects that we have run in Spain, comparing cognitive behavioural therapy and acceptance and commitment therapy, testing the efficacy of a modular therapy guided by functional analysis, and, more recently, analyzing the efficacy of an individualized psychotherapeutic intervention for caregivers with high levels of distress and guilt feelings. The potential mechanisms of change of these interventions will be discussed, and recommendations for the improvement of the clinical significance of the interventions, and the maintenance of therapeutic benefits in the long-term in future research will be provided.

## **Emotion Regulation in Adolescents and Adults with Autism and Neurodevelopmental Disorders: Mindfulness and Other Modifications to Enhance CBT Effectiveness**

**Carla Mazefsky, University of Pittsburgh, USA**

Children and adults with autism spectrum disorder (ASD) and other intellectual and developmental disabilities (IDD) often present for treatment for emotional and behavioural problems, such as depression, anxiety, meltdowns, poor stress management, or aggression. In ASD, there have been several randomized controlled trials to investigate the efficacy of cognitive-behavioural therapy for decreasing anxiety in particular, and cognitive-behavioural therapy is now considered an evidence-based treatment for ASD. Nonetheless, the effect sizes for

cognitive-behavioural therapy tend to be lower in ASD and other neurodevelopmental disorders than general child or adult populations, and there is limited research on the effectiveness of CBT for therapeutic targets other than anxiety. There is a smaller, but growing, body of literature suggesting that the use of mindfulness-based approaches may also be promising for a broader range of emotional treatment targets. There is also a growing appreciation for the role that emotion regulation plays in the poor psychiatric and behavioural outcomes in ASD and other neurodevelopmental disorders. Therefore, some new treatments to improve emotion regulation are being designed and tested in the hopes that improving emotion regulation will lead to better functioning across a wide range of manifestations of emotional and behavioural problems. This talk will describe the latest research on emotion dysregulation in autism spectrum disorder and other neurodevelopmental disorders. Both evidence-based assessment and treatment approaches will be covered, including an overview of the Emotion Dysregulation Inventory validated for developmental disabilities. Commonly employed modifications for therapy with clients with neurodevelopmental disorders will be described. Finally, a new intervention designed for ASD and other neurodevelopmental disorders, called the Emotion Awareness and Skills Enhancement (EASE) Program will be introduced. EASE is a 16-week individual therapy program designed to improve emotion regulation. EASE provides an example of a treatment that heavily emphasizes mindfulness while still incorporating some of the core components of CBT. Further, because EASE was designed for use with clients with neurodevelopmental disorders, it is illustrative of common modifications to therapy delivery that are thought to be useful when working with populations with neurodevelopmental disorders. The process of EASE's development will be described, results of the open trial of EASE will be presented, and preliminary data from the on-going randomized controlled trial comparing EASE to individual supportive therapy will be shared.

### **Bipolar Disorder in Youth: An Early Intervention Approach**

**David Miklowitz, University of California, USA**

The speaker will review his work on the use of psychosocial interventions as adjuncts to pharmacotherapy in bipolar disorder. His most recent work is on the early stages of bipolar disorder in children and adolescents. He will review a targeted psychosocial intervention – family-focused therapy – to enhance the outcomes of young patients at high risk for bipolar disorder: those with early signs of depression or hypomania, psychosocial impairment, and a family history of bipolar disorder. A recent trial conducted in three sites indicates that children at high risk who receive 4 months of family-focused treatment have longer times to depressive recurrence and less severe manic symptoms than those who receive a comparison intervention consisting of 4 months of psychoeducation and support. With effective treatment and the support of their families, young patients with bipolar disorder can learn to manage their disorder and become independent and healthy adults.

### **Cognitive Behavioural Therapy for Irritable Bowel Syndrome: The 18-year Journey from Theory to Implementation**

**Rona Moss-Morris, King's College London, United Kingdom**

IBS is a chronic and relapsing gastrointestinal disorder that affects 10 – 22% of the population. The primary symptom is abdominal pain associated with disordered bowel habit (constipation and/or diarrhoea) and relieved by defaecation. Although there is no clearly observed pathology to the bowel, IBS can significantly affect quality of life and there is a high incidence of comorbid anxiety and depression. The costs to the health care system are substantial with no clear standardised, evidenced based treatment for IBS. Many patients continue to suffer ongoing symptoms and related disability despite being offered first line medications such as antispasmodics and fibre products. Randomised controlled trials suggest cognitive behavioural therapy (CBT) is a promising treatment for IBS, but CBT protocols and results vary across studies, and questions remain over optimum modes of delivery, adherence to therapy and longer-term outcomes. To date, CBT is not offered routinely as a treatment for people with IBS. In this keynote, I will use the example of our work on irritable bowel syndrome (IBS) to track the journey from research to beginning the work necessary to embed IBS specific CBT into routine clinical care. I will show how we have used the Medical Research Councils' framework for developing complex interventions to develop an evidenced based CBT protocol for IBS. The first phase of the work involved developing an empirically based theory to explain perpetuation of symptoms and disability in IBS drawing from Leventhal's common-sense model of illness and cognitive behavioural theories. In the second phase we used this model to develop an IBS specific therapist supported cognitive behavioural self-management approach. In phase three, we evaluated this intervention in a pilot RCT comparing CBT self-management for IBS to standard medical care. In phase 4 we developed and piloted a guided self-management web-based version of this treatment (Regul8) to make it more accessible to patients. The final phase of this work was the ACTIB trial where we compared the clinical and cost effectiveness of web-based CBT and therapist delivered CBT over the telephone with treatment as usual. There were 558 patients randomised to the three arms in this trial and patients were followed up to one-year post randomisation. We just completed a further 24 months follow up of the trial and a detailed qualitative and quantitative process analysis to test our original theory and to work out who responds best to treatment and why. I will use these data to argue that our CBT protocol primarily treats IBS symptom severity and related disability through specified cognitive behavioural mechanisms, and that improvements in anxiety and depression are secondary to improvements in symptoms. Finally, I will detail our current work which has involved engaging with national training programmes and the national health service to ensure the therapy is rolled-out nationally and a commercial partner to work towards roll-out worldwide.

### **Distinctive Aspects in CBT in Brazil: How Cultural Aspects Impact Training and Clinical Practice**

**Carmen Beatriz Neufeld and Janaina Bianca Barletta, University of São Paulo, Brazil**

The CBT in Brazil has achieved greater highlight in the last few years, but it has still come up against some limits. According to the Ministry of Education, there are currently more than 470 psychology courses in the country and, based on the size and population distribution, they are spread unevenly across the country. A research has mapped the CBT teaching in the country pointed to the growth of the frequency of this content in universities, especially in the south, southeast and northeast regions. Despite this, there is still a predominance of more traditional approaches to psychology such as psychoanalysis and humanism in undergraduate courses. Another limiting aspect is the technicist model of teaching in Brazil, which minimizes the critical construction in the therapist's training, favoring the application of protocols and techniques as a mere reproduction without considering the individualized demand. Another characteristic for the therapists' training in the country is the increase in the offer of lato sensu postgraduate courses for this purpose, however, as well as in undergraduate courses, there is also a lack of standardization in the teaching of clinical competences in CBT. A national study pointed to differences in 20 evaluated courses, including whether or not they offer clinical supervision and its frequency, the number of hours required for clinical practice and supervision, the organization of content and activities for clinical development. In addition, in Brazil there is no evaluation culture, generating a strangeness on the part of supervisors and trainees in objectively evaluating the teaching process, the development of the therapist's competences, the therapeutic process, as well as the final results. There is no culture of using already consolidated educational strategies such as session recording and the use of scales. For example, no educational institution, whether undergraduate or postgraduate, has reported using the CTS-R or other competency measurement scale. There are few reports in the national literature about this type of educational activity, being isolated actions of researchers and specific professionals. In an initial study, a focus group was conducted with eight renowned CBT professors from all regions of Brazil. Among several aspects, some concerns have been raised and are directly related to our culture. For example, it has been pointed out that Socratic Questioning is particularly difficult for beginning therapists because of the cultural practice of counseling and the strong dissemination of unstructured therapies in the country. This cultural aspect also directly impacts the definition of therapeutic goals, considered a skill to be improved in the teaching of Brazilian therapists. Finally, the use of humor was viewed with fear,

since its lability and ease of being misinterpreted is great in face of the cultural and interpersonal diversities in the country. There is a need for more in-depth research on this subject since the studies are still initial and there is a lack of information.

### **The State of the Art of Cognitive and Behavioural Therapy for Sexual Problems: New Developments from Basic Science and Clinical Implications**

**Pedro Nobre, University of Porto, Portugal**

Sexual Dysfunctions are highly prevalent in men and women across the world and constitute a major health problem (Laumann et al., 1999). In the last three decades, several clinical and laboratorial studies have been emphasizing the role played by psychological variables on sexual response and functioning. Sexual beliefs (Heiman & LoPiccolo, 1988; Zilbergeld, 1999), efficacy expectations (Bach et al., 1999), cognitive distraction and attentional focus (Dove & Wiederman, 2000; Elliot & O'Donohue, 1997), attributional style (Weisberg et al., 2001), affect (Mitchell et al., 1998; Nobre et al., 2003), and physiological variables (Barlow, et al., 1983; Meston & Gorzalka, 1996) are among the most studied variables.

Despite the accumulated knowledge about the role of psychological factors in the etiology and maintenance of sexual dysfunctions (SD), there is a lack of evidence based models of SD, and a dearth of randomized control trial studies (RCT) testing the efficacy of psychological interventions. With the exception of Barlow's model (1986), little effort has been made to develop evidence-based comprehensive models that explain the factors involved in predisposing and maintaining sexual dysfunction in men and women. In order to cover that gap, Nobre and colleagues have conducted a series of studies on the influence of cognitive schemas (Nobre & Pinto-Gouveia, 2010), sexual beliefs (Nobre et al., 2003, 2006a), automatic thoughts (Nobre & Pinto-Gouveia, 2003, 2008), and emotions (Nobre & Pinto-Gouveia, 2003, 2006b) on sexual dysfunction. Results showed the strong influence of cognitive and emotional variables on sexual response and allowed the development of explaining models for sexual dysfunction in men and women (Nobre, 2010a, 2010b). These conceptual models are currently being tested in our SexLab ([www.fpce.up.pt/sexlab/](http://www.fpce.up.pt/sexlab/)) using experimental and longitudinal designs. Moreover, fMRI studies and a treatment outcome study is also undergoing to test the efficacy of Cognitive behaviour therapy (CBT) for erectile dysfunction when compared to medication. Studies on predictors of subjective and physiological response to erotic material in the laboratory have shown that cognitions and emotions (e.g., sexual thoughts and positive emotions) are significant predictors of subjective arousal, whereas physiological arousal in both men and women seems to be relatively independent from these psychological dimensions (Oliveira et al., 2014; Vilarinho et al., 2014). These findings suggest that psychotherapy (e.g., CBT) may have a significant impact on enhancing levels of subjective sexual arousal in men and women regardless of the genital response. Additionally, preliminary findings of the RCT suggest that CBT may be superior to medication in maintaining treatment gains in men with Erectile Dysfunction at 3 and 6 month follow-up. Results are in line with previous studies indicating that CBT yield more durable benefits than different pharmacological interventions for different psychological problems (e.g., depression, anxiety disorders).

### **Action, Dialogue & Discovery: Reflections on Socratic Questioning 25 Years Later**

**Christine A. Padesky, Center for Cognitive Therapy, USA**

Socratic questioning, now called Socratic dialogue, is no longer a chair-bound, predominantly cognitive intervention. Instead, it is most effective when paired with action-packed therapy methods such as behavioural experiments, role plays, imagery, and interactive writing. Pairing these action methods with Socratic dialogue increases engagement, elicits here and now data, and ensures discoveries are more memorable. One of the most frequently downloaded papers from our website is my first keynote address, delivered at the London EABCT conference in 1993 and titled, "Socratic questioning: Changing minds or guiding discovery?" It described and illustrated four stages of Socratic questioning and argued that the purpose of Socratic methods in CBT should be to guide discovery, not change minds. Today's keynote summarizes the evolution of my thinking about Socratic methods over the past 25 years. The original 4-stage model of Socratic questioning is intact but we now emphasize its collaborative and interactive nature by calling it Socratic dialogue. Discovery is still the ultimate goal but the nature of these discoveries has expanded over the decades. In addition to examining existing beliefs, we now employ Socratic dialogue in the context of action therapy methods to identify strengths, guide development of new beliefs and behaviours, and inject greater potential for discovery into practical self-help exercises.

### **CBT for Body Dysmorphic Disorder: An Update on the State of the Art**

**Katharine Phillips, Weill Cornell Medical College, USA**

Body dysmorphic disorder (BDD), impairing or distressing preoccupation with non-existent or slight defects in appearance, is a common and often-severe disorder. CBT that is individualized to BDD's unique clinical features is the psychosocial treatment of choice for this condition. An increasing number of studies, including randomized controlled trials, indicate that CBT is efficacious for a majority of individuals with BDD and more consistently efficacious than other therapies. This presentation will present data on the efficacy of CBT for BDD as well as recent data on predictors, moderators, and mechanisms of CBT outcomes. The treatment will also be described, which includes psychoeducation, case formulation, setting valued goals, motivational enhancement, cognitive restructuring, exposure and ritual prevention, mindfulness and attentional retraining, and advanced strategies to modify self-defeating assumptions about the importance of appearance and to enhance self-acceptance, self-esteem, and self-compassion. Optional modules target symptoms requiring specific strategies for those individuals with these symptoms, such as depression, skin picking, and surgery seeking. Modification of CBT strategies for youth will be described. Clinicians commonly encounter a number of challenges when treating individuals with BDD. Frequently encountered challenges include poor or absent insight (i.e., delusional BDD beliefs); depressive symptoms, which can be severe; a desire for cosmetic procedures such as surgery or dermatologic treatment rather than CBT; low motivation for CBT; co-occurring substance use disorders; and suicidal ideation, which is common and can be severe. Strategies for approaching and overcoming these challenges will be discussed. Finally, this presentation will discuss future research directions that have the potential to augment and improve CBT for BDD. They include enhancement of current CBT strategies as well as the development of treatments that target endophenotypes such as aberrations in visual processing and in cognitive and emotional processing.

### **What We Don't Know About Compulsions May Be Hurting Us**

**Christine Purdon, University of Waterloo, Canada**

What do we really know about compulsions? Maybe not as much as we think we do, as there have been surprisingly few systematic studies of the phenomenology of compulsions. Interesting findings emerge when we ask people detailed questions about their compulsions as they are being performed. Using experimental, diary, and interview methods, we have explored such factors as how people with OCD frame the goal of their compulsions, what causes them to repeat the compulsion within an episode, and how they make the decision to terminate the compulsion. These data may help us understand the persistence of compulsions, and have implications for treatment that align well with current evidence-based approaches.

### **The State of the Evidence on Psychotherapy for PTSD**

**Paula P. Schnurr, National Center for PTSD, USA**

This talk will review the evidence on psychotherapy for PTSD, using the 2017 PTSD Practice Guideline jointly issued by the US Department



of Veterans Affairs and the Department of Defense as a platform for presenting the state of the science. The talk also will describe the key areas in which the science is emerging, such as medication-assisted psychotherapy, and suggest needed questions for research. In addition, the talk will include guidance about unique methodological considerations in the interpretation of the literature on psychotherapy.

### **Self-Reported Symptoms and the Body: A New Perspective on Their Relationship**

**Omer Van den Bergh, University of Leuven, Belgium**

How do you feel? This simple question is asked by doctors, family and friends when you feel ill. But how does the experience of symptoms come about and what do symptoms tell about actual bodily dysfunction? Afferent information from peripheral physiology is an important source, but a variety of interoceptive processes can make the relationship between symptoms and physiological dysfunction vary from almost perfect to zero. When the latter happens, which is all too often, symptoms cannot be related to physiological dysfunction, frustrating both the doctor and the patient and leading to excessive health care consumption. Interestingly, the probability of developing such symptoms is importantly elevated in persons characterized by (facets of) negative affectivity. We will review evidence showing when symptoms are related to peripheral physiology and when and why they are not. Experimental studies show that symptoms and physiological dysfunction can be easily uncoupled and that affective sources of interoceptive input often overrule somatic sources to determine symptoms. Convergent results question modal models that were previously used to understand so-called medically unexplained symptoms and somatization and prompt a new way to understand how symptoms relate to peripheral bodily dysfunction. Much as in visual perception where an unconscious, automatic and compelling inference process often uses non-given information to construct a meaningful percept (cfr. visual illusions), symptom perception is conceived of as a dynamic constructive process balancing afferent peripheral input and information generated by the brain: under some conditions, the eventual percept of a symptom closely reflects the afferent input, while in other conditions it may more closely reflect (implicit) prior expectations. In both cases, however, symptoms rely on the same constructive mechanisms and have the same phenomenal quality of “trueness”. This view suggests that current clinical interventions in somatization should broaden their scope. Rather than mainly focusing on treating symptom-related distress (worrying, rumination, attentional and interpretation biases), interventions are needed that may change the perceptual processes themselves that lead to symptoms unrelated to bodily dysfunction.

### **40 Incredible Years! In the Innovation of IY Programs: Where Have We Been? Where Do We Go Next?**

**Carolyn Webster-Stratton, University of Washington, USA**

As many as eight percent of young children are highly aggressive, oppositional, diagnosed with ADHD, or have difficult temperaments. These children are often challenging to parent or teach. Long-term studies show that such children have a higher risk of developing conduct disorders that lead to school dropout, delinquency, violence, and substance abuse. Because conduct disorders are the most expensive mental health disorder in children, this is a problem of public health importance. Identifying and helping these children and their families and teachers is imperative. Dr. Carolyn Webster-Stratton, Professor Emerita from the University of Washington has spent 35 years researching ways to help prevent and treat behavior problems in young children, as well as developing and researching programs to promote children's social and emotional competence and academic readiness. During her presentation she will talk about what led her to develop the Incredible Years Programs including her personal experiences, important mentors, decision making regarding populations to address, content to include, use of technology, and key therapeutic methods and processes. She will briefly summarize over 30 years of her randomized control group trials regarding what methods, processes and participants are needed to bring about parent, teacher and child interaction change. She will describe some of the IY parent, teacher and child programs and show video examples of some of these programs to demonstrate how they work. Additionally, she will show examples of some of her newer programs. Finally, she will talk about the implementation process of promoting program fidelity, including where the program is currently being used, what has been learned so far with these IY evidence-based programs and where the research needs to go next.

## SYMPOSIA

### Symposia 1: Addictions

#### **Potions for Emotions and Food for Mood: The Interplay Between Emotion, Cognition and Problematic Consumption Behaviours**

**Convenor:** Henry Austin, University of Western Australia, Australia, and University of Amsterdam, the Netherlands

**Chair:** Gemma Healey, University of Western Australia, Australia

**Discussant:** Reinout Wiers, University of Amsterdam, the Netherlands

#### **Predicting Emotional Drinking in the Laboratory and Investigating the Mediating Role of Impaired Response Inhibition**

**Henry Austin, University of Western Australia, Australia, and University of Amsterdam, the Netherlands**

**Lies Notebaert & Reinout W. Wiers, University of Western Australia, Australia**

**Elske Salemink, Utrecht University and University of Amsterdam, the Netherlands**

**Colin MacLeod, University of Western Australia, Australia**

People commonly report drinking alcohol in response to positive (positive-emotional drinking) and negative emotion (negative-emotional drinking). Those who report a tendency to engage in emotional drinking are more likely to experience alcohol-related problems, and emotional states (particularly negative) are also reported to increase relapse susceptibility. As yet, there has been limited research to determine whether self-reported individual differences in emotional drinking can predict this phenomenon in the laboratory, and the cognitive processes that might mediate an effect of emotion on alcohol consumption. We probed these questions across two studies. In Study 1, we aimed to determine whether self-reported individual differences in positive and negative-emotional drinking would predict alcohol consumption in the laboratory after exposure to a positive or negative emotional experience, respectively. It was hypothesised that self-reports on behaviour offer a greater capacity to predict emotional drinking than self-reports on motivations for drinking. A sample of beer drinkers (N=39) reported on their tendency to engage in positive and negative-emotional drinking (self-reports on behaviour) and completed a measure of enhancement and coping motives (self-reports on motivations). They were randomised into a positive or negative emotion induction and completed an alcohol consumption task. Moderation analyses revealed that, as predicted, self-reports on the tendency to drink alcohol in response to negative emotion predicted alcohol consumption in the negative emotion induction condition, while coping motives did not. Neither self-reports on the tendency to drink alcohol in response to positive emotion, nor enhancement motives, predicted alcohol consumption in the positive emotion induction condition. In Study 2, we aimed to investigate the role of impaired response inhibition to alcohol cues as a mediator of the relationship between a negative-emotional experience and alcohol consumption. It was hypothesised that self-reported individual differences in negative-emotional drinking would predict increased alcohol consumption in a negative emotion induction condition, and this effect would be mediated by impaired inhibitory control to alcohol cues. Beer drinkers (N=83) reported on their tendency to engage in negative-emotional drinking. They were randomised into a positive or negative emotion induction condition, completed a modified Stop-signal Task to measure response inhibition and an alcohol consumption task. Conditional process analyses revealed that self-reported individual differences in negative-emotional drinking predicted poorer response inhibition to alcohol cues in the negative emotion induction condition, though this effect was not related to alcohol consumption. These studies provide the first laboratory investigation of whether self-reports predict observed emotional drinking, and the processes that underlie this phenomenon. Findings implicating impaired response inhibition in negative-emotional drinking have implications for the processes to be targeted in treatment. The lack of evidence for hypotheses relating to positive-emotional drinking will be discussed with regard to possible design improvements that could be made to further investigate emotional drinking

#### **Do Drinking Motives and Drinking Contexts Mediate the Relationship Between Social Anxiety and Alcohol Problems?**

**Sherry H. Stewart, Dalhousie University, Halifax, Nova Scotia, Canada**

**Jamie Lee Collins, Nova Scotia Health Authority, Canada**

**Simon B. Sherry, Dalhousie University, Canada**

**Kara Thompson, Saint Francis Xavier University, Canada**

**Kyle McKee, Dalhousie University, Canada**

There is a high comorbidity between social anxiety and alcohol use disorders. Prior studies suggest drinking motives and drinking context mediate the relation between social anxiety and alcohol problems, but this evidence comes from separate studies and no studies have examined how these variables might exert their influences in sequence. We tested a model where the link between social anxiety and problematic alcohol consumption is explained by both cognitive and contextual variables (i.e., risky drinking motives [e.g., specific coping motives] and risky drinking contexts, respectively). More specifically, our hypothesized model posited that social anxiety exerts influences in increasing negative reinforcement motives for drinking which in turn increase risk for drinking heavily in certain high-risk contexts which ultimately increases risk for alcohol-related problems. Our cross-sectional study included 189 undergraduate drinkers (76.7% female; 91.0% Caucasian). Participants completed measures of: social anxiety (the Avoidance subscale of the Liebowitz Social Anxiety Scale); negative reinforcement drinking motives (the Modified Drinking Motives Questionnaire – Revised, and the Drinking Due to Social Anxiety Questionnaire) including coping with anxiety motives (CAM), coping with depression motives (CDM), conformity motives, and coping with social anxiety motives (CSAM); and risky drinking contexts relevant to those with social anxiety, namely personal/intimate contexts and negative emotional contexts from the Drinking Contexts Scale-Revised. Participants also completed a validated measure of alcohol-related problems – the Rutgers Alcohol Problems Index (RAPI). Drinking quantity (amount of alcohol consumed during a typical drinking episode) was measured using a single-item embedded in a demographics/lifestyle questionnaire. In correlational analyses, social avoidance was significantly positively correlated with conformity motives, CAM, CDM, CSAM, and drinking in negative emotional and personal/intimate contexts, as well as with alcohol problems, but not with drinking quantity. To test our sequential mediator model, path analysis was performed using Mplus 7.3. Drinking quantity, age, and gender were controlled. The hypothesized mediational model provided an adequate to good fit to the data,  $\chi^2(2) = 3.991$ ,  $p = .14$ ; RMSEA = .08, 90% CI [.00, .18], CFI = 0.996. Of the single mediator models tested (with drinking motives or drinking contexts as sole mediators), only CSAM and CDM were significant mediators in the relation between social avoidance and alcohol problems. In the full sequential mediator model, only one of the five hypothesized chained mediational pathways was supported. Specifically, CSAM, and in turn drinking in personal/intimate contexts, mediated the social avoidance-alcohol problems relation.

In sum, undergraduates with high levels of social avoidance drank for both CDM and CSAM, which in turn predicted heavy drinking in risky contexts; however, drinking motives, rather than risky contexts, largely mediated the relation of social avoidance to alcohol problems. Findings suggest that CDM and CSAM independently mediate the relationship between social avoidance and alcohol problems and might serve as useful intervention targets for socially avoidant undergraduate drinkers.

### **Cognitive Mechanisms underlying Individual Differences in Negative Emotional Consumption of Junk Food**

**Gemma Healey & Jason Bell, University of Western Australia, Australia**

**Eva Kemps, Flinders University, Australia**

**Patrick Dunlop & Colin MacLeod, University of Western Australia, Australia**

The current study investigated two hypothesised models of Negative Emotional Consumption of Junk Food (NECJF). A cognitive bias to negative emotional information model proposes that females prone to NECJF experience greater elevations in negative mood in response to a stressor, compared with those who are not prone to NECJF, because they have a stronger dispositional approach bias to negative emotional information, and elevations in negative mood mediate the association between a stressor and junk food consumption. The cognitive bias to junk food information model proposes that while in a negative mood state, females prone to NECJF have a stronger approach bias to junk food information, compared with those who are not prone to NECJF, and this approach bias will mediate the association between negative mood and junk food consumption.

Participants were 81-undergraduate women (age range:17-25) who completed the approach-avoidance task to assess their approach biases to negative emotional and junk food information. Biases were assessed prior to and during a stress manipulation. Half of the participants were assigned to a high stress condition designed to induce negative mood, and half were assigned to a low stress condition designed not to induce negative mood. Junk food consumption was measured with a “bogus” taste-test. The newly developed Emotional Consumption of Food Questionnaire, and the widely used Dutch Eating Behaviour Questionnaire, were used to measure participants propensity to consume greater amounts of junk food in response to negative emotions (NECJF-disposition).

Overall, the results did not provide support for the pattern of effects predicted by the models. In regard to the cognitive bias to negative emotional information model, participants endorsing a high NECJF-disposition did not respond to the high stress condition with greater elevations in negative mood, nor did they exhibit a stronger dispositional approach bias to negative emotional information. In regard to the cognitive bias to junk food information model participants endorsing a high NECJF-disposition did not exhibit a temporarily stronger approach bias to junk food information while in a negative mood state, and nor did this approach bias mediate the association between negative mood and junk food consumption. Importantly, however, neither scores on the relevant scales of the Emotional Consumption of Food Questionnaire nor the Dutch Eating Behaviour Questionnaire significantly moderated the association between negative mood and junk food consumption. Therefore, the current study did not successfully measure individual differences in the eating style that two models were proposed to explain. Consequently, the validity of the two models could not adequately be tested.

The results suggest that before researchers can begin to identify the cognitive mechanisms contributing to individual differences in NECJF, a reliable and valid measure of individual differences in this eating style is needed- ideally one that does not rely on self-report. Only once such a measure is developed will research be able to identify the cognitive mechanisms that contribute to this eating style and subsequently inform clinical interventions aimed at remediating problematic junk food consumption in response to negative emotions.

### **Mechanisms of Emotional Eating in Different Eating Disorders and Healthy Controls**

**Rebekka Schnepfer, Paris-Lodron-University of Salzburg, Austria**

**Anna Richard, Paris-Lodron-University of Salzburg, Austria, and Schön Klinik Roseneck, Germany**

**Katharina Eichin, Paris-Lodron-University of Salzburg, Austria**

**Ulrich Voderholzer, Schön Klinik Roseneck, Germany**

**Jens Blechert, Paris-Lodron-University of Salzburg, Austria**

The tendency to change one's food intake in response to negative emotions represents a trait like eating style that has been studied intensely, both in healthy individuals and in patients with different eating disorders. Particularly, Bulimia Nervosa (BN) is thought to be linked to emotion related binge eating. Mechanisms include learned emotion regulation strategies on the one hand and disinhibition as a consequence of failed restraint on the other. The latter account assumes that the regulation of negative emotions consumes resources which are then unavailable for eating control. Emotional eating is thought to be less critical in Anorexia Nervosa (AN), however, research is scarce in this group.

Thus, to characterize emotional eating across AN, BN and healthy controls (HC) and to uncover potential mechanisms, we conducted a laboratory experiment involving the presentation and rating of food images under both neutral and negative emotional states while collecting respective electrocortical responses. Female participants matched in age and education level viewed food images in two blocks (negative vs. neutral emotions) and rated their desire to eat them (DTE). In order to maximize personal relevance and to ensure effective negative emotion induction, we used idiosyncratic autobiographical scripts of recent negative events. EEG was recorded to investigate underlying brain mechanisms in interaction with behavioral tendencies.

AN patients generally had the lowest DTE. While DTE was lower in AN and HC in the negative block, BN patients showed the opposite pattern and reported an increased DTE. This was especially true for BN patients who reacted with strong negative emotions to the emotion induction, which, in daily life, might translate to the occurrence of eating binges once a certain threshold of stress and negative emotions is passed. Within each of the groups, higher trait emotional eating scores assessed via questionnaire correlated with increased DTE under negative emotions. The fact that this also holds for AN patients highlights the importance of identifying subtypes (restrictive vs. binge/purge) and tailoring treatment accordingly.

Neurally (P300 component), neither controls nor BN patients responded strongly to the emotion induction. However, within the AN group, higher emotion induction effects went along with higher attentional P300 amplitudes, indicative of a high-responding subgroup.

In sum, this study identified common and differential mechanisms of emotional eating, modelled continuously and beyond eating disorder diagnoses. Eating patterns clearly separated AN and BN from each other and from the HC group. Thus, negative emotions trigger different regulation strategies in each group. As expected, mainly in the BN group food ratings showed a ‘binge like’ pattern. Yet, emotion induction modulated neural activity only in AN (but there were no decisive results regarding an emotion-regulatory or disinhibitory pattern). This suggests that emotional eating needs to be targeted clinically in both ED groups, or in a high-responding AN subgroup, despite their potentially different clinical presentation. Clinicians might use food cue exposure treatment under emotional conditions to explore mechanisms and functionalities of eating in both AN and BN patients.

## **Transmechanistic Cognitive Behavioral Therapy for Substance Use**

**Convenor: Leanne Hides, The University of Queensland, Australia**

**Discussant: Amanda Baker, The University of Newcastle, Australia**

### **Studying Mechanisms of Behavior Change to Inform Precision Medicine for Alcohol Use Disorder**

**Katie Witkiewitz, University of New Mexico, USA**

Alcohol use disorder (AUD) is a heterogeneous disorder. Recent work in the field has focused on genetic and neurobiological markers of AUD treatment response, but self-report measures can also be useful in teasing apart mechanisms of treatment outcomes. In this talk we highlight recent findings from analyses of alcohol clinical trial data which have provided evidence of phenotype x treatment interactions and identified coping repertoire as a potential mediator of treatment outcomes. First, in the United Kingdom Alcohol Treatment Trial (n=734) we found that negative affect mediated the association between physical pain and alcohol relapse. Further, we found that individuals who experienced physical pain were less likely to relapse if they received the social behavior and network therapy intervention. Second, in the Project MATCH Trial in the United States (n=1726) we found that coping repertoire significantly mediated treatment effects, such that broader coping repertoire predicted better outcomes. Results will be discussed in the context of training adaptive coping strategies, mechanisms of behavioral treatments, and precision medicine initiatives.

### **Rumination as a Transmechanistic Construct Cross Substance Misuse, Deliberate Self-Harm and Binge/Purge Behaviours: A Qualitative Study of Vulnerable Young People**

**Elise Sloan, Kate Hall & Richard Moulding, Deakin University, Australia**

**Carlye Weiner & Rose-Mary Dowling, Youth Support and Advocacy Service, Australia**

**Background:** Young people accessing mental health treatment in Australia frequently present with high levels of psychological distress alongside engagement in a number of dysregulated behaviours including substance misuse, deliberate self-harm (DSH), bingeing and purging. Rumination has been identified as a central link between high distress and behavioural dysregulation, however many aspects of the ruminative process which are thought to precipitate and maintain behavioural dysregulation remain unknown.

**Aims:** To explore young people's experience of rumination and the relationship that this has with their distress and engagement in substance misuse, DSH and binge/purge behaviours.

**Methods:** Twelve treatment seeking young people were interviewed about their experience of rumination in the context of a recently recalled situation where they engaged in a dysregulated behaviour. Interview data were analysed using qualitative content analysis.

**Results:** Themes included the content, intensity and duration of rumination, failed attempts to manage rumination, the role of dysregulated behaviours in distracting from rumination, and the immediate and long-term consequences of engaging in these behaviours in relation to ongoing cycles of rumination and emotional distress.

**Conclusions:** Substance misuse, DSH and binge/purge behaviours represent maladaptive ways to distract from intense and pervasive rumination in this cohort of young people. Clinical and treatment implications pertaining to these findings will be discussed.

### **An Adjunctive Emotion Regulation and Impulse Control Intervention for Young People with Co-Existing Alcohol and Other Drug Use and Mental Health Problems**

**Kate Hall, Angela Simpson, Elise Sloan, George Youssed & Richard Moulding, Deakin University, Australia**

**Amanda Baker, University of Newcastle, Australia**

**Natasha Perry, Hunter New England Local Health District, Australia**

**Alison Beck, University of Wollongong, Australia**

**Background:** The need for transdiagnostic treatment approaches for vulnerable young people who present with complex coexisting mental health and substance use disorders is indicated by the overwhelming evidence that (a) co-occurring diagnoses in young people are pervasive and may well be 'the norm', (b) certain disorders cluster together reliably; and (c) diagnostic stability is low, with continuity from one disorder to another common. Emotion dysregulation is a transdiagnostic mechanism that is amenable to change after treatment with cognitive behavioural interventions and changes in emotion dysregulation are related to symptom reduction across the cluster of disorders relevant to vulnerable young people. The ERIC program is a transdiagnostic cognitive behavioural intervention that promotes sustained practice, coaching and intentional emotion regulation skill building. This study aimed to determine the impact of 12 weeks exposure to ERIC on a) emotion dysregulation, (b) symptoms of stress, anxiety and depression; (c) the application of mindfulness and acceptance-based skills in vulnerable young people.

Participants were vulnerable young people (n=79; 50.6% male) aged between 16 and 25 years (mean 19.30; SD=2.94), recruited from community health centres (32.9%), youth substance use (19.0%) and primary mental health services (32.9%), and youth justice (6.3%) and detention centres (8.8%) from metropolitan and regional Australia. Approximately 20% (n=16) of the sample identified as Aboriginal and/or Torres Strait Islander. At baseline, most participants had received usual care with their current youth practitioner for one to six months (41.6%), with 27.3% commencing treatment during the last month.

**Procedure:** During the 12-week intervention period, participants received ERIC as an adjunct to usual care, which included outreach and housing support, counselling, case management, supervision of community-based orders, and offence-focused interventions. Participation was voluntary and had no impact on provision of usual care. Young people completed the Difficulties in Emotion Regulation Questionnaire (DERS), the Depression Anxiety and Stress Scale (DASS), Acceptance and Action Questionnaire (AAQ), and the Cognitive and Affective Mindfulness Scale (CAMS) at baseline (Time 1) and six weeks following the completion of the 12-week intervention period (Time 2). Linear mixed effects regression (with random intercept) was used to examine change over time across emotion dysregulation (DERS), depression and anxiety and stress (DASS); acceptance (AAQ) and mindfulness skills (Total\_CAMS).

**Results:** There were decreases in DERS-Total and DASS\_stress of moderate magnitude ( $d_z = -.56$  and  $-.50$ , respectively). Small to moderately sized decreases over time were also observed across DASS\_depression, DASS\_anxiety, and AAQ-Total (i.e.,  $d_z$ s ranging from  $-.20$  to  $-.27$ ). There was little evidence to support Total\_CAMS changing from Time 1 to Time 2 ( $p = .203$ ,  $d_z = .16$ ).

**Conclusion:** Cognitive behavioural emotion regulation interventions may be important adjunctive treatments for vulnerable young people accessing support across varied youth sectors. Decreases in mental health symptoms and improvements in emotion dysregulation were observed after 12 week exposure to ERIC when delivered by youth practitioners in real world settings. Retention remains a significant challenge.

### **Randomized Controlled Trial of Personality Risk-Targeted Coping Skills Training for Young People with Alcohol Related-Illnesses/Injuries**

**Leanne Hides, The University of Queensland, Australia**

**David Kavanagh, Queensland University of Technology, Australia**

**Catherine Quinn & Gary Chan, The University of Queensland**

**Susan Cotton, The University of Melbourne, Australia**

**Mark Daglish, Royal Brisbane and Women's Hospital, Australia**

**Lance Mergard, ChaplainWatch, Australia**

**Ross Young, Queensland University of Technology, Australia**

#### **Background**

The efficacy of brief motivational interviewing (MI) interventions for reducing alcohol use and related harm in young people has been demonstrated in a large number of studies. However, series of meta-analyses have indicated the evidence for BMIs in young people is less robust than once thought, and there is significant scope to increase their impact. The efficacy of personality-specific interventions (PIs) for alcohol misuse delivered individually to young people is yet to be determined or compared to MI, despite growing evidence for school-based PIs.

#### **Aim**

This randomized controlled trial determines if motivational interviewing (MI) enhanced with personality risk-targeted coping skills training (PI) is more efficacious than MI alone or an assessment feedback/information (AFI) only control.

#### **Method**

This Phase II single blind superiority RCT compared the efficacy of three telephone-delivered brief interventions for young people (16-25 years) presenting to an emergency department or rest/recovery services with alcohol-related injuries and/or illnesses in Brisbane, Queensland, Australia. 394 young people were randomized to receive (i) 2 sessions of MI; (ii) 2 sessions of PI or (iii) a 1-session AFI. Alcohol use and related problems, mental health symptoms, functioning and coping skills were assessed at baseline, 1, 3, 6 and 12 months.

#### **Results**

Participants (56% Female; Mage=20.3 years) were drinking on a mean of 1.4 days (SD=1.5) per week at baseline, and consuming 10.7 (SD=7.2) drinks per drinking occasion. Participants were followed up at 1, 3, 6 and 12 months (80% retention). All groups achieved significant reductions in the frequency and quantity of alcohol use and alcohol-related problems. Significantly larger reductions in the quantity of alcohol were found in PI group compared to the AF/I and MI groups at 1 month follow up. Larger reductions in the frequency, quantity and quantity of alcohol consumed/drinking occasion were found in the PI group compared to the MI and AFI groups at 12 months follow up. No between group differences in alcohol-related problems were found.

#### **Conclusion**

All three types of brief interventions resulted in reductions in alcohol use and related harm in young people. The PI was the most efficacious brief intervention for reducing alcohol misuse in young people presenting to crisis support services or emergency departments. Telephone-delivered PI's provide accessible, efficacious, and easily disseminated treatment for addressing the significant public health issue of alcohol misuse and related harm in young people.

### **Cohort Analytic Trial for Strength-Based Wellbeing Recovery Program for Young People Accessing Residential Rehabilitation for Substance Use Disorders**

**Catherine Quinn, Leanne Hides, Zoe Walters & Dominique de Andrade, The University of Queensland, Australia**

**Introduction and Aims:** Many individuals experiencing severe substance use disorders access residential rehabilitation services. While there is a growing body of evidence for effective programs within these services, there is substantial room for improvement. Innovative approaches, which identify and build protective factors, as well as reduce risk factors for substance use, may be one way to improve treatment outcomes. This cohort analytic trial examines whether Grit, a 12-session strength-based wellbeing program, can enhance treatment outcomes for young people accessing residential treatment. Grit focuses on reducing substance use and comorbid mental by building mindfulness, emotion regulation and social connection.

**Design and Method:** Participants were young people, aged 18-35 years) accessing two Lives Lived Well residential rehabilitation services. Participants received either receive six weeks of standard treatment, or standard treatment + Grit (2 sessions each week for 6 weeks). They were assessed on substance use, anxiety, depression, wellbeing, social connectedness, and mindfulness skills at baseline and 6 weeks, 3 months, 6 months and 12 months post-program enrolment.

**Results:** There were 205 (65% male) young people included in the study, the majority of whom were single (78.5%), unemployed (74.1%) and had English as their first language (99%; 9.8% Aboriginal or Torres Strait Islander origin). The main primary drugs of concern were Methamphetamines (47.5%), followed by alcohol (27.5%). Comorbid mental health concerns were high with 43% meeting cut-off criteria for PTSD, 60.4% experiencing psychotic-like symptoms, 44.2% experiencing cut-off criteria for moderately severe depression, and 62.1% for generalized anxiety. Baseline characteristics for the sample, as well as six week, and 3 month follow-up results of the trial will be presented. An overview of the Grit wellbeing program will also be presented, including a description of the strategies that have been used to maintain client engagement and group participation.

**Conclusion:** Common comorbidities for this high-risk substance using group will be highlighted, as well as factors that are potentially maintaining mental health and substance use concerns. Novel approaches to group therapy work will be discussed and explored, with a particular emphasis on the practical implementation of the intervention and its key strengths and challenges.

### **Recent Developments in Approach-Avoidance Assessment and Training Across Disorders**

**Convenor: Naomi Kakoschke, Monash University, Australia**

**Discussant: Naomi Kakoschke, Monash University, Australia**

### **Automatic Approach Tendencies Towards Task-Relevant and Task-Irrelevant Food Pictures in Anorexia Nervosa-Relationships with Treatment Outcome**

**Renate Neimeijer, Klaske Glashouwer & Peter de Jong, University of Groningen, the Netherlands**

**Background and Objectives.**

Anorexia Nervosa (AN) patients are characterized by excessive restriction of their food-intake. Prior research using a computerized approach-avoidance task (AAT) with food as a task-irrelevant feature provided evidence for the view that AN patients' ability to refrain from food is facilitated by reduced automatic approach tendencies towards food. However, because food was task-irrelevant, the findings may in fact reflect a relatively strong ability to ignore the content of the food stimuli rather than weakened approach towards food per se. Therefore, this study also included an AAT with food as task-relevant feature that could not be ignored. To test the relevance of automatic approach tendencies in the persistence of AN, we also examined whether treatment success was related to increased approach tendencies towards food.

#### Methods.

Two versions of a computerized approach-avoidance task were administered in restrictive AN spectrum patients ( $n = 63$ ) before treatment and after 1 year follow up. The design also included a comparison group of adolescents without eating pathology ( $n = 57$ ): A Stimulus Response Compatibility (SRC) task with food as a task-relevant feature, and an Affective Simon Task (AST) with food as task-irrelevant feature.

#### Results.

In both tasks, AN patients showed reduced approach tendencies for high caloric food compared to the comparison group. Only the SRC uniquely predicted the presence of AN. Specifically for high caloric food items, approach tendencies increased from baseline to one-year after the start of treatment. The change in approach tendencies was however not associated with concurrent change in eating disorder symptoms as indexed with the EDE-Q.

#### Conclusion.

The findings corroborate the view that AN is characterized by a weakened tendency to approach high caloric food. The reduced approach tendency when food was task-relevant and could not be ignored seemed the most critical characteristic of patients with AN. This might 'help' restrict their food-intake even in a condition of starvation. Increase in automatic approach appeared unrelated to change in subjective symptoms with the 1-year treatment period. It remains to be seen whether normalizing automatic approach tendencies towards food might nevertheless be associated with treatment success on the longer term.

### **Approach Bias Modification During Alcohol and Methamphetamine Withdrawal Treatment: Learnings from Australian Pilot Research and Future Directions**

**Victoria Manning & Joshua Garfield, Monash University, Australia**

**Petra Staiger, Jarrad Lum & Kate Hall, Deakin University**

**Daniel Lubman & Antonio Verdejo-Garcia, Monash University, Australia**

**Background:** Approach bias describes the automatic action tendency in people with substance use disorders to move towards alcohol/drug-related stimuli. Among heavy drinkers and individuals with alcohol dependence, alcohol approach bias has been shown to predict relapse. Research indicates that computerised Approach Bias Modification (ApBM) training can shift an alcohol-approach bias to an alcohol-avoidance bias and reduce rates of relapse post-treatment. Recent neuroscience findings point to neuroplasticity in the days following alcohol cessation making detoxification an optimal time to re-train approach biases. We therefore examined the feasibility, acceptability and clinical outcomes associated with ApBM delivered during inpatient withdrawal across three separate pilot studies.

**Participants:** Participants with moderate-severe alcohol use disorder ( $n=83$ -study 1,  $n=37$ -study 2) or methamphetamine use disorder ( $n=50$ -study 3) were undergoing inpatient withdrawal at one-of-three inpatient units in Melbourne. In each study, participants completed up to four consecutive days of ApBM, with pre and post-training craving scores assessed and self-reported substance use outcomes examined 2-weeks or 3-months post-discharge. Consistent measures and outcome parameters were adopted across the three studies.

**Results:** In study 1, which was an RCT, 4 ApBM sessions significantly increased alcohol abstinence rates by 30% ( $p=.02$ ) relative to a sham-training condition 2-weeks post-discharge. Feasibility was also high, with 83% completing all 4 sessions. In study 2 however, when ApBM was combined with computerised adaptive working memory training, abstinence rates 2-weeks post-discharge were only 6% higher than in the study 1 sham-training condition. Nonetheless, feasibility was reasonable with 70% completing training and only 7 participants withdrawing participation, and acceptability was high (93% rating the task as interesting). In study 3, where participants were trained to avoid methamphetamine-images and approach neutral (healthy) images, we observed lower intervention uptake rates (47%) and lower training completion rates (62%) but reasonable acceptability (78% rating the task as interesting). However among those who were successfully followed up, we observed high rates of abstinence from methamphetamine at both 2-weeks (61%) and 3-months (54%).

**Conclusion:** These findings suggest ApBM is more feasible and acceptable to patients undergoing alcohol withdrawal than methamphetamine withdrawal. This could be due to the severe instability in mood, sleep and motivation during the acute phase of methamphetamine withdrawal, which is not managed as effectively by current medications. Nonetheless, rates of self-reported abstinence were higher than observed with standard withdrawal management or control (sham) training, suggesting ApBM may be an effective adjunctive intervention. The findings highlight some of the pragmatic and logistical challenges of delivering neurocognitive interventions during acute withdrawal. Nonetheless, the positive engagement and promising outcomes warrant further exploration of ApBM with this population. Future directions for ApBM research in this context include the use of personalised avoidance and approach images to increase engagement, and the use of mobile-app delivered booster sessions to extend early clinical benefits from ApBM.

### **Activating Alternative Activities for Smoking in Approach Bias Modification Under Craving: A Proof-Of-Principle Study**

**Helle Larsen, Si Wen & Reinout Wiers, University of Amsterdam, the Netherlands**

**Background:** Approach Bias Modification (ApBM) has shown promise in the treatment of addiction. However, there is a need to improve its effectiveness in smoking cessation. In the current study, a new variety of ApBM (ApBM-plus) was tested in which not only an approach bias for smoking was retrained, but also an approach bias for behavioural alternatives for smoking were trained. Effects were assessed on approach bias for smoking, for alternative activities, and on smoking outcomes by comparing to a standard version of ApBM (ApBM-standard) and a sham version of ApBM (ApBM-sham).

**Methods:** 67 daily smokers with an intention to quit were randomly assigned to one of the three conditions. In the ApBM-standard condition, participants were trained to avoid smoking stimuli and approach neutral stimuli. In the ApBM-sham condition, participants were trained to avoid and approach all stimuli equally often. In the ApBM-plus condition, participants were trained to not only avoid smoking stimuli, but also to approach stimuli representing personally chosen alternative activities in the context of urge to smoke. Seven ApBM sessions were preceded by two Motivational Interviewing sessions. Smoking-approach bias and alternative activities-approach bias were measured at baseline (BL) and end of treatment (EOT); and biological verified 7-day-point prevalence (PP) abstinence, breath carbon monoxide levels (CO), weekly cigarette use, and craving were measured at BL, EOT, and 1-month follow-up (FU). ANCOVAs and Multilevel Mixed Modelling (MLM) were conducted using the whole sample as well as sub-samples of heavy smokers (15 or more cigarettes/day) and light to moderate smokers (<15 cigarettes/day). **Results:** Both ApBM-plus and ApBM-standard training had no significant effect regarding reducing

smoking approach bias and improving alternative activities approach bias, and no behavioural effects in the whole sample. Significant moderation was found for severity of smoking: heavy smokers receiving ApBM-plus training had a lower smoking approach bias than those receiving ApBM-sham training. Conclusions: The findings did not support that activating alternative activities in ApBM in the context of urge to smoke is an effective way to foster smoking approach bias reduction, alternative activities approach bias improvement, and smoking cessation, although statistical power is an issue. The positive effects in heavy smokers warrant further research into the potential of ApBM-plus training to foster smoking approach bias reduction.

### **The Approach-Positivity Training in Depression**

**Eni Becker, Janna Vrijnsen & Mike Rinck, Radboud University, the Netherlands**

**Indira Tendolkar, University Duisburg-Essen, Germany, and Radboud University Medical Center, the Netherlands**

Depression is one of the most common psychological disorders, and many patients do not benefit from treatment. A possible reason may be that treatments do not target anhedonia, a core symptom of major depressive disorder. One aspect of anhedonia is a lack of the positivity bias that healthy individuals show, favoring the processing and approach of positive stimuli. In a transdiagnostic approach, we tried to target the lack of a positivity bias with a computerized training program. We first tested the training in student samples, and then carried out two clinical studies. In the first clinical study, a randomized controlled trial, 256 patients who suffered from different psychological disorders completed four sessions of either an active training in which positive emotional pictures were pulled closer and neutral pictures were pushed away with a joystick movement, or a placebo training, in addition to their treatment-as-usual. We were able to induce a positive bias, and after treatment, depressed patients in the active training condition had a significantly lower BDI score than those in the control condition. In the second study, another randomized controlled trial, 122 depressed inpatients received either four sessions of this Positivity Approach-Avoidance Training (AAT), or a new Positivity-Attention Dot-Probe Training (DPT), next to treatment-as-usual. Both trainings had an active version and a control condition. Clinician-rated depressive symptom severity decreased more in patients who received the active condition of either the DPT or the AAT, compared to patients in the control conditions. Overall, these results indicate that positivity trainings are a promising option as add-on treatments for patients with depression.

### **Innovations in Psychological Treatment of Addictive Behaviours**

**Convenor: David Kavanagh, Queensland University of Technology, Australia**

**Chair: David Kavanagh, Queensland University of Technology, Australia**

**Discussant: Discussant Reinout Wiers, Universiteit van Amsterdam, the Netherlands**

### **"I Kind of Just Missed Feeling Normal" – an Exploration of Alcohol Use in Young People with Severe Mental Illness (SMI)**

**Sonja Pohlman, Caroline Anderson, Amanda Baker, Sean Halpin & Kristen McCarter, University of Newcastle, Australia**

**Leanne Hides, University of Queensland, Australia**

Young Australians with severe mental illness (SMI) report high rates of hazardous alcohol consumption. According to the Australian Survey of High Impact Psychosis study, a lifetime history of alcohol use disorders was reported in 50% of people living with a SMI, double that reported a decade previously (Morgan et al, 2017). While alcohol use has not been implicated as a causal factor in the onset of psychotic disorders, it is consistently related to increased symptoms, higher rates of depression, poorer treatment compliance and worse treatment outcomes (Baker et al, 2012; Brown et al, 2009; Colizzi et al., 2016; Regier et al, 1990). A recent Australian study reported young people at risk of developing a psychosis used alcohol more than other young people seeking help at a youth mental health service in Australia (Carney et al, 2017). Previous research suggests that for efforts to moderate premature or excessive drinking in young people to be successful, it is necessary to understand the antecedents of drinking behaviour (Gregg, Barrowclough & Haddock, 2007; Kuntsche, Knibbe, Gmel & Engels, 2006; Thornton et al, 2012). Existing research has investigated motives for substance use in people with SMI, however much of this research has either focused on an older cohort (i.e. 30+ years of age) or on substances other than alcohol (i.e. stimulants or cannabis) (Lobbana et al, 2010; Mueser et al, 1995; Spencer, Castle & Michie, 2002). In the present study, we aimed to investigate how young people with SMI use alcohol. Semi-structured interviews were completed with seven young people aged 18-25 who were inpatients at a mental health unit in Newcastle, Australia. Participants were required to have consumed any amount of alcohol in the preceding six months. Participants were asked about their experiences of alcohol use, motives for drinking alcohol, self-efficacy with regards to alcohol consumption and experiences of, and attitudes towards, therapy. Interpretative Phenomenological Analysis (IPA) was chosen as the method of analysis because of the focus on exploring how individuals make meaning of their lived experiences. Method triangulation was also used to develop a broader understanding of the phenomenon. To this end, participants completed several self-report measures including: the Alcohol Use Disorders Identification Test (AUDIT), Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), a modified Drinking Motives Questionnaire, Positive and Negative Alcohol Metacognitions Questionnaires, and the lifetime and current versions of the Patient Health Questionnaire (PHQ-9). Data are being analysed at the time of this submission and will be presented and discussed. Preliminary analyses suggest themes which include the strong connection of alcohol to the ideal of a "normal life", alcohol as a replacement for other substances and changing alcohol use patterns following a mental health diagnosis. In the discussion, we develop the implications of these results for the development of telephone delivered metacognitive therapy for young people with SMI and hazardous alcohol use.

### **Web-Delivered Attentional Bias Modification for Young Adult Binge Drinkers: A Randomised Controlled Pilot Study**

**Melanie White & Elisabeth Pohl, Queensland University of Technology, Australia**

Consistent with dual processing models of substance use, findings from meta-analyses support a role of attentional biases for alcohol-related stimuli in drinking behaviour, particularly in greater alcohol consumption (Rooke, Hine, & Thorsteinsson, 2008) and cravings (Field, Munafo, & Franken, 2009). Research has then sought to modify these attentional biases to establish their causal influence on alcohol use. Application of attentional bias retraining methods has followed paradigms shown to be successful in the anxiety and mood literature, often using a variant of the dot-probe task (typically modelled after MacLeod et al., 2002) or a modified Stroop task (see Cox, Klinger, & Fadardi, 2015; Wiers, Gladwin, Hofmann, Salemink, & Ridderinkhof, 2013). While evidence of efficacy is mixed (Christiansen, Schoenmakers, & Field, 2015), attentional bias modification training (ABMT) procedures using the modified dot-probe task have shown promising effects in training heavy and dependent drinkers to focus their attention away from general alcohol-related stimuli (e.g., pictures or words such as "bar", "wine") and reduce hazardous drinking behaviour, with multi-session interventions showing more consistent outcomes (Heitmann et al., 2018). There has been increasing evidence in the anxiety literature that delivering training of computer-based treatments in a more naturalistic setting, such as the home, are successful for ABMT (Amir & Taylor, 2012). Furthermore, substance use cognitions have been found to be best induced in environments where the substance use occurs (Stevenson et al., 2017).

Here, we report the first results of a multi-session ABMT pilot study that aimed to use a web-based modality to optimise effects of the ABMT procedure by delivering it in a more naturalistic home environment where binge-drinking is more likely to occur and contain cues which will induce appetitive motivational responses. In turn, this may be more conducive for training effects transferring to behaviours engaged in that setting (e.g., drinking at home), which has been found in a study addressing attentional retraining in smokers (Kerst & Waters, 2014). Our ABMT procedure used a word dot-probe task that we had developed and trialled previously in a single session laboratory-administered format where it was found to be effective in training young binge drinkers' attention towards negative alcohol associations and reducing engagement in binge-drinking in the subsequent 2-weeks. In the present study, using a double-blind randomised controlled design, young adult (18-25 years) binge drinkers were randomly allocated to complete five sessions over three weeks of web-delivered active training ('attend-negative') or sham training versions of a modified word-based dot-probe task. We will compare these training groups on attentional bias (assessed pre-, post- and one month post- training) and self-report binge drinking behaviour (assessed pre- and at 1-month post- training), and discuss implications of our findings for informing the development of future interventions targeting alcohol-related attentional biases and delivered via the internet.

### **A Randomised Controlled Trial of Inhibitory Control Training for Smoking Cessation and Reduction**

**Jason Bos, Petra Staiger, Kate Hall, Melissa Hayden, Laura Hughes & George Youssef, Deakin University, Australia**

**Natalia Lawrence, University of Exeter, United Kingdom**

**Objective:** Despite a variety of effective treatments relapse to smoking remains the most likely outcome, highlighting the need for novel and innovative smoking cessation treatments. In recent years, inhibitory control training (ICT) has emerged as a potentially efficacious intervention for the reduction of unhealthy food and alcohol consumption. This study reports on the first randomised controlled evaluation of internet-delivered ICT in a community sample of heavy smokers.

**Method:** We recruited 107 adult smokers (mean age = 46.15, 57 female) who smoked a minimum of 10 cigarettes per day and met criteria for a moderate or severe tobacco use disorder. Participants were randomised to receive Go/No-Go training in which either smoking-related stimuli (intervention) or non-smoking stimuli (control) were paired with No-Go signals. Participants were instructed to complete one training session per day for 14 days. Daily cigarette consumption was recorded at post-intervention and at one and three-months follow-up. This trial was pre-registered with the Australian and New Zealand Clinical Trials Registry (Trial ID: ACTRN12617000252314).

**Results:** We found no significant differences between conditions on percent days abstinent or daily cigarette consumption at post-intervention, one-month or three-months follow-up; however, both conditions reported significant reductions in daily cigarette consumption across all time points (approximately 36%). Interestingly, age significantly moderated the relationship between condition and cigarette consumption, whereby younger participants in the intervention group reported significantly less cigarette consumption than older participants.

**Conclusions:** While inhibitory control training did not help participants cease smoking, it may be an effective method to reduce cigarette consumption for younger adults.

### **Functional Imagery Training for Alcohol Use Disorder: Results of a Randomised Controlled Trial**

**David Kavanagh & Jennifer Connolly, Queensland University of Technology, Australia**

**Jackie Andrade & Jon May, Plymouth University, United Kingdom**

Functional Imagery Training (FIT) uses mental imagery to elicit and maintain motivation. Initially, Motivational Interviewing (MI) is delivered using imagery. If the person is committed to change, it then shows them how to use motivational imagery whenever it is needed. An app provides reminders and audios to cue imagery. This paper describes a randomised controlled trial comparing FIT for Alcohol Use Disorder (3.5 hr by phone over 6 months), with contact-controlled MI plus support, or brief MI. Follow-up assessments were single-blind. Intent-to-treat results at 6 and 12 months on alcohol use and quality of life are described.

### **Augmenting Cognitive Behavior Therapy for Appetitive Disorders with Brain-Based Technological Developments**

**Convenor: Reinout Wiers, University of Amsterdam, the Netherlands**

**Chair: Murat Yücel, Monash University, Australia**

**Discussant: Discussant Sherry Stewart, Dalhousie University, Canada**

### **The Potential of Using Virtual-Reality (VR) to Detect, Overcome and Avoid Addictive and Compulsive Conditions**

**Murat Yücel & Alison Cullen, Monash University, Australia**

**Nathan Dowling, The Melbourne Clinic, University of Melbourne, Australia**

**Adrian Carter, Monash University Clinic, Australia**

**Scott Blair-West, The Melbourne Clinic, University of Melbourne, Australia**

**Kevin McIntosh, Torus Games**

**Rebecca Segrave, Monash University, Australia**

In this talk we will present on the potential of using virtual-reality (VR) to detect, overcome and avoid addictive and compulsive conditions including Gambling Disorder and OCD. The presentation will discuss some early applications of VR: (i) to Assess the cognitive and physiological effects of specific design features of electronic gambling machines, such as the near-misses and losses disguised as wins, and; (ii) for VR-Therapeutics, such as the use of exposure and response prevention, in individuals with OCD. The presentation will also discuss the future implications of this work and some of the barriers and facilitators to adopting VR in the clinic.

### **Virtual Reality-Based and Theoretical Neuroscience Grounded Approaches to Diagnostics in Addiction: Two Case Studies**

**Paul Verschure, Institute for Bioengineering of Catalonia, Spain**

The diagnostics of the impact of addiction on brain and behavior is notoriously difficult lacking consensus on the most effective methods. I will present results of pilots with new virtual reality-based diagnostics and intervention tools for chronic cannabis users and alcoholics. In the case of the former we have developed a low-cost diagnostic test which for the assessment of cannabis induced distortions of the integration of executive and procedural control. This approach has its origins in computational models we have developed to explain the executive control systems of the frontal cortex [1] and the error-based learning systems of the cerebellum [2]. In the case of alcoholism, we have



advanced a paradigm that uses the balancing of top-down and feedforward attentional systems as an indicator of working memory [3][4]. Hence, it is our ambition to develop clinical diagnostics as a way to validate brain theory. The VR based interventions we rely on, have their roots in a large-scale program in neurorehabilitation. Hence, I will conclude withdrawing some general parallels between the challenges of diagnostics and intervention in the fields of neurorehabilitation and addiction.

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### **Participatory Design of a Virtual Reality Approach-Avoidance Training Intervention for Obesity**

**Naomi Kakoschke, Barbora de Courten, Jon McCormack & Antonio Verdejo-Garcia, Monash University, Australia**

**Introduction:** Approach-avoidance training (AAT) is a promising intervention for modifying automatic approach biases for unhealthy food cues in obesity. However, previous research using traditional computerised, laboratory-based AAT in the eating domain has produced mixed findings, which highlights the need to develop novel, more engaging training to boost its effectiveness. One way to improve engagement and in turn, effectiveness of such training, may be the use of digital technologies such as smartphone applications and virtual reality (VR) paradigms. Another potential way to improve engagement is through participatory research design methods involving end-users, which is shown to be useful for understanding the perspectives of participants and identifying strategies to improve acceptability of interventions. However, no study to date has used participatory design methods to co-create and compare technology-based AAT training techniques. Thus, the aim of the current study was threefold: 1) to examine end-user acceptability of therapeutic VR, 2) to examine end-user self-reported engagement of two technology-based versions of AAT (smartphone app and immersive VR); and 3) to examine changes in end-user self-reported engagement with smartphone-delivered AAT. **Method:** This study used a mixed-methods design comprising online quantitative surveys and focus groups. The online survey was designed to examine users' knowledge of VR and attitudes towards its therapeutic use. The focus groups were designed to gain more detailed insight into users' perspectives on smartphone app and VR delivered AAT, including potential barriers and enablers of use. Visual Analogue Scales (VAS) were used to assess users' enjoyment and engagement with the two versions of AAT after completing each task in the focus group and at one-week follow-up (smartphone version only). **Results:** Thirty-nine adults (age  $M=44.28$ ,  $SD=13.5$ , 20.5% male, body mass index [BMI]: mean = 32.88 kg/m<sup>2</sup>,  $SD=8.30$ ) completed the online survey, while a subset ( $n=9$ ; age:  $M=47.63$ ,  $SD=14.38$ , male = 22.22%, BMI  $M=36.08$ ,  $SD=5.84$ ) participated in the focus groups. Survey results showed that 46.15% ( $n=21$ ) of participants had tried VR. Of the 53.85% of participants who had not tried VR, 80.95% ( $n=17$ ) indicated that they would like to try it. Regarding therapeutic use, 23% ( $n=9$ ) had heard of VR being used therapeutically, of which 88.88% ( $n=8$ ) had a positive impression. In addition, participants reported that the VR version of AAT was more enjoyable ( $t(8)=-3.686$ ,  $p=.008$ ,  $d=1.45$ ), and less frustrating ( $t(8)=2.561$ ,  $p=.034$ ,  $d=0.86$ ), difficult ( $t(8)=2.408$ ,  $p=.043$ ,  $d=0.90$ ), boring ( $t(8)=2.406$ ,  $p=.043$ ,  $d=0.90$ ), and effortful ( $t(8)=2.663$ ,  $p=.029$ ,  $d=0.89$ ) than the smartphone version. **Discussion:** The findings suggest that VR-based AAT may be more engaging than smartphone-delivered AAT. One potential reason is VR-based version of AAT enables users to perform real physical actions and manipulate virtual 3D foods using haptic feedback. Future research should use clinical trials to establish the efficacy of VR-based AAT in obesity. **Conclusion:** Immersive VR may be an engaging way to deliver AAT.

### **The AddictionBeater, a Gamified Cognitive Bias Modification Program for Alcohol Addiction: Feasibility, Clinical Effects and User Experience**

**Reinout Wiers, University of Amsterdam, the Netherlands**

**Marilisa Boffo, University of Amsterdam and Erasmus University Rotterdam, the Netherlands**

**Laura Bijkerk, University of Amsterdam and Utrecht University, the Netherlands**

**Panote Siriaraaya, TU Delft, the Netherlands & Kyoto Institute of Technology, Japan**

**Elske Salemink, University of Amsterdam and Utrecht University, the Netherlands**

**Valentijn Visch, TU Delft, the Netherlands**

Cognitive Bias Modification (CBM) interventions targeting alcohol approach bias have shown promise in reducing long-term alcohol relapse rates, but can be boring and repetitive, affecting engagement with the intervention and, in turn, training effects. The use of gamification in the context of CBM has the potential to boost the motivational properties of such training programs. We recently developed the AddictionBeater, a novel, web-based modular gamified CBM training program based on a stepwise learning process, including three consecutive training modules re-training selective response inhibition (Go/No-go) and alcohol approach bias (irrelevant- and relevant-feature AAT). The gamification design was based on using music as a core game mechanic, with participants performing the training tasks on the music beat. This presentation will report the first results of a clinical randomized controlled trial evaluating the feasibility and therapeutic effects of the AddictionBeater as a training intervention on top of treatment as usual in a sample of 161 alcohol dependent inpatients completing a three-months rehabilitation treatment in a residential German clinic. Participants randomly completed the AddictionBeater program, a non-gamified version of the same CBM program, or a non-gamified sham training, and were free to train whenever and for as long as they wished along 3 weeks before discharge. We will report data on participants' usage of the application and their user experience, and on the intervention effects on one-year relapse rates and changes in alcohol approach bias and implicit associations at conclusion of the training. In the discussion, we will focus on the implications of design and implementation choices, such as the selection of target users and of context of use of the application, that are crucial to consider when developing and evaluating such family of digital interventions in clinical settings.

## **New Developments of Approach Bias Modification (AppBM) in Addiction**

**Convenor: Charlotte Wittekind, Ludwig-Maximilians-Universität, Germany**

**Chair: Charlotte Wittekind, Ludwig-Maximilians-Universität, Germany**

### **What Happens in Real Life? Long-term Effectiveness of CBM in Relapse Prevention During Inpatient Treatment of Alcohol Dependence: Results of a Large Multi-Center RCT**

**Johannes Lindenmeyer, Medizinische Hochschule Brandenburg and Salus clinic Lindow, Germany**

**Mike Rinck & Eni Becker, Radboud University Nijmegen, the Netherlands**

**Stephan Mühlig, Technische Universität Chemnitz, Germany**

**Robert Schönebeck, salus klinik Lindow, Germany**

Background: Positive effects of new treatments found in RCT studies do not show up regularly under routine care conditions. Therefore, we tested whether the significant decrease of relapse rates by cognitive bias modification (CBM) as an add-on during inpatient treatment of alcohol-dependent patients that was found in several RCT studies (Wiers et al., 2011; Eberl et al., 2013) would prevail in routine care in 10 treatment centers.

Method: A multi-center phase-IV study with a total of 1.444 alcohol-dependent patients (60% male) was conducted in 10 German addiction clinics. Patients were randomly assigned to either 6 sessions of 15 minutes computerized alcohol-avoidance training or to a no-training control group, as an add-on during 12 weeks inpatient treatment. Abstinence rates were determined by questionnaires and phone calls 3, 6, and 12 months after discharge. No reply was taken as relapse.

Results: Overall, patients as well as therapists showed high acceptance of the CBM-training. However, significant differences were found between patients and therapists in the evaluation of the training. Across all clinics, the abstinence rates after 3, 6, and 12 months follow-up showed a small but robust advantage of 4-5% of the CBM group over the control group. At 3 months, the effect was significant across the whole sample. Excluding one "outlier clinic" due to questionable data quality, the effect remained significant at 6-months follow-up across the remaining nine clinics. It was no longer significant at 12 months after discharge, probably due to high attrition rates.

Conclusion: Compared to TAU, CBM (here: alcohol-avoidance training) provides a small and partly significant additional benefit in the routine care of alcohol addiction. Considering the excellent cost-benefit ratio, this training should be disseminated for routine relapse prevention in alcohol addiction treatment. However, as the advantage of CBM did not show up at all sites similarly, further studies are needed to identify the necessary and sufficient context conditions for effectiveness of CBM in routine care.

### **The Moderating Effect of Affective Comorbidity on Alcohol-Avoidance Training in Alcohol-Dependent Patients**

**Elske Salemink, Utrecht University, the Netherlands**

**Mike Rinck, Radboud University Nijmegen, the Netherlands and Ruhr-University Bochum, Germany**

**Eni Becker, Radboud University Nijmegen, the Netherlands**

**Reinout Wiers, University of Amsterdam, the Netherlands**

**Johannes Lindenmeyer, salus clinic Lindow and Medizinische Hochschule Brandenburg, Germany**

Alcohol-avoidance training (AAT) is a new training that supplements existing treatments for patients with an alcohol use disorder (AUD). However, there is also substantial variability in training effectiveness. Given that comorbid affective disorders are very common in AUDs, and that comorbid disorders often have a negative impact on outcomes of primary psychological treatments, the aim of the current study was to investigate whether the AAT effects on relapse rates could be replicated in currently abstinent AUD patients with comorbid affective disorders, and whether affective comorbidity moderates AAT's effectiveness. We conducted a large-scale randomized controlled trial (RCT) in a clinical sample of currently abstinent AUD patients (n=729) with a 1-year follow-up assessment. All patients received treatment as usual (primarily CBT) and on top of that, half of the patients were randomized to an additional 12-session AAT (AAT+TAU), and half to a no training control condition (TAU-only). Results revealed that patients in the AAT+TAU condition had significantly higher success rates than the TAU-only condition at 1-year follow-up. Furthermore, affective comorbidity moderated AAT's effects: AAT increased success rates more in patients with a comorbid affective disorder compared to patients without such comorbidity. To conclude, we replicated the finding that adding AAT to TAU increases success rates one year later, and the data suggested that AAT training works best in patients with comorbid affective disorder; a promising finding given the high rates of comorbidity in clinical practice.

### **Long-Term Effects of Alcohol-Avoidance Training: Do Learning Curves Predict Who Will Remain Abstinent?**

**Mike Rinck, Radboud University, the Netherlands**

**Robert Schönebeck, salus clinic Lindow, Germany**

**Eni Becker, Radboud University, the Netherlands**

**Reinout Wiers, University of Amsterdam, the Netherlands**

**Johannes Lindenmeyer, salus clinic Lindow, Germany**

Alcohol-avoidance training (AAT) has repeatedly been shown to decrease relapse rates in abstinent alcohol-dependent patients, even up to 1 year later. In the AAT, patients use a joystick to repeatedly push away pictures of alcoholic beverages and pull closer pictures of non-alcoholic beverages. Because of its proven effectiveness, a six-session version of the AAT has been implemented as standard treatment in several German rehabilitation clinics. However, little is known about predictors of clinical training effects, therefore it cannot be given specifically to those patients who are more likely to profit from it. Moreover, previous variables considered as predictors were mainly related to the patients (e.g., age or pre-training bias), not to the training. Therefore, the current observational study aimed to identify predictors derived from the training itself, that is, individual learning curves. We used a large database of patients who had completed the six-session AAT at the salus clinic Lindow as a standard part of their treatment, between 2013 and 2016. We identified 543 patients whose training data had been saved correctly and completely, and who were reached for the 1-year follow-up assessment. From their training data, we computed various potential indices of learning, including the alcohol-approach bias before the AAT, the bias at the end of the AAT, the difference between these two biases, the variability of biases across sessions, and the linear change of the bias across sessions. It turned out that none of these variables was a significant predictor of relapse, despite the high statistical power of the study. We will discuss implications and limitations of these findings.

## **Combining Avoidance and Go/No-Go Training to Prevent Relapse in Alcohol- Dependent Patients**

**Edwin Schenkel, Mike Rinck & Harm Veling, Radboud University, the Netherlands**

**Robert Schönebeck & Johannes Lindenmeyer, salus clinic Lindow, Germany**

Alcohol-dependent individuals tend to selectively approach alcohol cues in the environment, known as approach bias. This reinforces alcohol consumption and contributes to maintenance of the addiction. Likewise, they have stronger positive automatic attitudes towards alcohol. The positive evaluation of alcohol elicits the tendency to approach alcohol due to its rewarding value. This strengthens the existing positive evaluation of alcohol, increasing consumption. Hence, reducing consumption requires reductions in both approach bias and evaluation of alcohol. The Approach-Avoidance-Training (AAT) successfully reduces approach bias, decreasing consumption in heavy drinkers and relapse rates in abstinent alcoholics. An effective approach to modify behavior via changes in evaluation is the Go/No-go-Training (GNGT). During active GNGT, participants have to rapidly respond (via button presses) to pictures of nonalcoholic drinks but inhibit their responses to pictures of alcoholic drinks. During sham GNGT (control group), the contingency to press or not to press a button in response to pictures of alcoholic or nonalcoholic drinks is equal. The inhibition of alcohol pictures was found to lead to devaluation and reduced consumption of alcohol. Since devaluation appears to initiate changes in approach towards and consumption of alcohol, augmenting AAT with GNGT might intensify decreases in consumption and relapse.

The present study investigated whether the effects of AAT on reductions in approach bias and relapse can be amplified by GNGT. For six sessions, alcohol-dependent inpatients received AAT followed by either active (active training) or sham GNGT (sham training). Active versus sham training is expected to more effectively reduce approach bias and evaluation of alcohol. Further, we examined the effects of active versus sham training on relapse assessed three months after training. Active versus sham training is expected to more effectively reduce relapse.

## **Approach-Bias Modification as an Add-On in Smoking Cessation: A Randomized-Controlled Study**

**Charlotte Wittekind, Ludwig-Maximilians-Universität, Germany**

**Daniel Lüdecke & Barbara Cludius, University Medical Center Hamburg-Eppendorf, Germany**

Dual-process theories of addiction propose that addictive behavior is mainly guided by processes of the impulsive system (Deutsch & Strack, 2006; R. W. Wiers et al., 2007). In line with these theoretical assumptions it has been found that smoking is associated with attentional and approach biases for smoking-related stimuli (Bradley, Field, Mogg, & De Houwer, 2004; Cox, Fadardi, & Pothos, 2006; Machulska, Zlomuzica, Adolph, Rinck, & Margraf, 2015; C. E. Wiers et al., 2013). However, these biases are not sufficiently taken into account in current smoking cessation interventions, let alone directly targeted. The aim of the present randomized-controlled single-blind study was to investigate whether long-term outcome in smoking cessation can be improved by combining treatment-as-usual (TAU) with Approach-Bias Modification (AppBM). TAU is a manualized CBT-based smoking cessation intervention following clinical guidelines (IFT-Gesundheitsförderung, 2013). The primary outcome was daily cigarette consumption at the 6-month follow-up. To this end, participants (N = 105) received three sessions of TAU and were randomized to either six additional sessions of AppBM or six sessions of Sham training. During the training, smoking-related and smoking-unrelated pictures were presented with a blue or yellow frame. The frame indicated to either push or pull a computer mouse. During AppBM, all smoking-related pictures were framed in the color associated with pushing (i.e., avoidance), smoking-unrelated pictures in the color associated with pulling (i.e., approach). During Sham training, 50% of each picture category was associated with pulling and pushing, respectively. Response direction was linked to a “zoom” function such that picture size increased during pulling and decreased during pushing. Outcomes were assessed directly after the intervention period of four weeks and six months later. Results revealed that participants receiving TAU + AppBM did neither show a greater reduction of daily cigarette consumption nor a higher abstinence rate compared to TAU + Sham at follow-up (cigarette consumption: per-protocol: 95% CI: -2.56–4.89,  $p = .608$ ; intention-to-treat: 95% CI: -3.11–2.96,  $p = .968$ ; abstinence rates: per-protocol: AppBM: 10 of 33 (30%), Sham: 14 of 34 (41%),  $\chi(1) < 1$ ,  $p = .353$ ; intention-to-treat: AppBM: 15 out of 54 (28%), Sham: 16 out of 51 (31%),  $\chi(1) < 1$ ,  $p = .687$ ). Additionally, AppBM did not consistently change implicit approach biases. As a change in the implicit approach bias is regarded as a pre-requisite for symptom change (Grafton et al., 2017; MacLeod & Clarke, 2015), it remains unresolved whether AppBM would be more effective than Sham training if the bias had been changed successfully. As contingency awareness has been shown to be an important moderator of training effects in previous studies (Nishiguchi, Takano, & Tanno, 2015; Van Dessel, De Houwer, & Gast, 2016), future studies could use trainings with explicit instructions (i.e., picture content task relevant) to improve bias change.

## **Symposia 2: Anxiety**

### **Testing Adult Cognitive Models in Socially Anxious Youth**

**Convenor: Lynn Mobach, Macquarie University, Australia**

**Chair: Lynn Mobach, Macquarie University, Australia**

**Discussant: Silvia Schneider, Ruhr-Universität Bochum, Germany**

### **Facial Emotion Processing: A Social Skills Deficit or Negative Interpretation Bias?**

**Lynn Mobach, Macquarie University, Australia, and Radboud University, the Netherlands**

**Mike Rinck & Eni Becker, Radboud University, the Netherlands**

**Talia Carl, Macquarie University, Australia**

**Anke Klein, Radboud University, the Netherlands**

**Jennifer Hudson, Macquarie University, Australia**

Social Anxiety Disorder (SoAD) is one of the most prevalent and debilitating disorders in youth. Children with SoAD have the worst outcomes after cognitive behavioural therapy, when compared to children with other anxiety disorders. There are multiple mechanisms that may be involved in the maintenance of social anxiety. One possible underlying risk factor and maintenance mechanism that is suggested to be specific to children when compared to adults with SoAD is a social skills deficit. However, current treatment for children with SoAD is mostly based on cognitive models developed for adult SoAD. These models generally state that persons with SoAD have biased cognitive processes which are maintaining the anxiety. However, for childhood SoAD, no such models exist. Hence, it is typically assumed that adult cognitive models apply to socially anxious youth as well. It is important to examine whether adult SoAD models apply to children as well or whether they should be adapted to include other maintenance mechanisms.

This presentation will include results from two studies looking at a possible social skills deficit and a negative interpretation bias related to social anxiety. Specifically, these studies will focus on one important social stimulus: emotional faces. Being able to accurately recognize and interpret emotional faces is crucial for daily social interaction. There are mixed findings on how children with SoAD process emotional faces. Some studies suggest that children with SoAD interpret emotional faces as more negative, which might suggest a negative bias and some studies suggest that they are less accurate in labelling emotional faces, which might suggest a social skills deficit. The aim of this talk is to answer this question: Are children with social anxiety less skilled in labelling emotional faces, or do they display a negative interpretation bias when looking at emotional faces?

The current talk will first report findings from a study in which children (aged 7-12) in a large community sample ( $n = 547$ ) varying in their levels of social anxiety were asked to judge emotional faces on the emotion presented and on the valence of the expression. Results show that children who score high on social anxiety do not significantly make more mistakes in labelling emotional faces than children low on social anxiety. However, children who score high on social anxiety do indicate lower valence for all emotions. It will then report findings from a second study of a clinical sample of children (aged 7-12). Children with SoAD ( $n = 40$ ) were compared to children with other (non-social) anxiety ( $n = 40$ ) disorders and to children without anxiety disorders ( $n = 50$ ). All groups completed an experimental facial emotion recognition paradigm. Neutral facial expressions were morphed with happy, angry and fearful faces at different percentages to create ambiguous emotional faces. Children were then asked to label the emotional expression and to indicate the percentage of that emotion on a scale from 0-100%. Findings will be discussed in relation to a social skills deficit or a negative interpretation bias.

### **Does a Compliment Make You Anxious? Fear of Positive Evaluation and Self-Relevant Cognitive Processes After Positive Feedback**

**Anne Miers, Leiden University, the Netherlands**

It is well established that the core cognitive component of social anxiety is fear of negative evaluation (FNE; American Psychiatric Association, 2013). In recent years, attention has been given to a proposed second cognitive component of social anxiety: fear of positive evaluation, defined as “the sense of dread associated with being evaluated favorably and publicly” (FPE; Weeks et al. 2008). FPE might explain why some socially anxious individuals do not profit from exposure to successful and positive social experiences, as typically used during interventions. In cross-sectional, mainly questionnaire-based studies among adults, FPE has been shown to be a construct that is distinct from FNE and is uniquely related to social anxiety symptomatology, for example, state anxiety and avoidance behaviour (Reichenberger & Blechert, 2018). However, the way in which FPE relates to cognitive constructs that maintain social anxiety, such as anticipatory processing and post-event processing (Clark, 2001), remains unclear. Moreover, studies investigating FPE and social anxiety have, to date, relied on hypothetical social evaluative situations. Furthermore, very little is known about FPE as a distinct cognitive construct related to social anxiety in youth populations. Thus, the aim of the current study is to investigate whether FPE contributes unique variance, over and above FNE, to the explanation of social anxiety related constructs, in a late adolescent sample. The study employs a standardized social-evaluative situation with actual positive (versus neutral) feedback from age peers in order to examine the role of FPE in three constructs: state anxiety, anticipatory and post-event processing. If FPE is a relevant cognitive construct for social anxiety in youth, it should contribute unique variance to state anxiety and cognitive processes, particularly in the context of receiving positive social feedback. Sixty-five late adolescents (Mage = 19.42 years, SD = 1.66) were recruited at a university to participate in a study about ‘online friendship building’. The experiment consisted of two sessions. In the first session, participants gave an impromptu speech of 3 minutes and received standardized positive or neutral feedback following the speech. Questionnaires assessing FPE, and social anxiety (including FNE, distress, and avoidance) were administered at the first session. The second session took place one week after the first session. State anxiety was measured using a visual analogue scale during the first session; anticipatory processing was measured in the first and second session and post-event processing in the second session only.

Initial correlation analyses reveal a positive association between FPE and social anxiety ( $r = .48, p < .01$ ) and between FPE and FNE ( $r = .27, p < .05$ ). These correlations suggest that FPE is a distinct construct from FNE, but one that is moderately related to social anxiety in youth. Additional analyses will further investigate the unique role of FPE in relation to state anxiety and cognitive processes, before and after receiving feedback. The current study will provide new findings relevant to theoretical models of the fear of positive and negative evaluation in relation to social anxiety in youth.

### **Information Processing Biases in Socially Anxious Youth**

**Ella Oar, Carly Johnco, Jasmine Fardouly & Natasha Magson, Macquarie University, Australia**

**Allison Waters, Griffith University, Australia**

**Ronald Rapee, Macquarie University, Australia**

Social relationships and peers become increasingly important during adolescence. Hence, not surprisingly during this developmental period both normative and pathological social fears and worries emerge. During social interactions youth must process complex visual and verbal information. Information processing models suggest that socially anxious individuals allocate their attention towards threat related information (i.e. attention bias), interpret ambiguous information as threatening (i.e. interpretation bias) and show an enhanced memory recall for threat related information (i.e., memory bias; Crick & Dodge, 1994, Muris & Field, 2008). This biased information processing is thought to be integrally involved in the development and maintenance of social fears and worries. While a substantive body of research has studied information processing biases in anxious youth more generally, limited studies have examined these biases specifically in relation to social anxiety and only a handful of studies have explored the associations between these biases. The present study aims to examine the relationship between social anxiety and information processing biases in a large sample of early adolescents, and explore links between these biases. It is expected that youth who have high levels of social anxiety will show greater (1) threat-related biases in visual fixation patterns, (2) threat interpretations in response to ambiguous social scenarios and (3) recall of threat-related information, in comparison to youth who have low levels of social anxiety. Moreover, attention biases will be associated with interpretation biases and memory biases. Five hundred pre-adolescents (10 to 12 years) completed a self-report measure of social anxiety and an ambiguous scenario task. Following this they attended a laboratory session during which they completed a free viewing eye tracking task and free recall memory task. Data collection has recently been completed with data coding and preliminary analyses currently underway. Study findings will evaluate support for the information processing model of anxiety and improve our understanding of potential mechanisms underlying the development of social anxiety. Moreover, the findings have implications for refinement of cognitive bias modification interventions for socially phobic youth.

## **"They Are All Staring at Me": Qualitative Study Exploring 'in the Moment' Experiences of Children with Social Anxiety Disorder**

**Brynjar Halldorsson & Cathy Creswell, University of Oxford, United Kingdom**

While the cognitive theory of social anxiety disorder (SAD) is one of the most widely accepted accounts of the maintenance of the disorder in adults, it remains unknown if, or to what extent, the same cognitive and behavioural maintenance mechanisms that occur in adult SAD also apply to childhood SAD. It is possible that adult models of SAD may need to be adapted for children due to differences between adults and children in cognitive maturation and social environment. For example, it has been suggested that social skills deficits in childhood may create a risk for ongoing SAD that endures and leaves a residual perception of poor social skills in turn, suggesting that objective social skills may have developed and become unimpaired with time. In other words, social skills deficits may be relevant to the maintenance of SAD in childhood but not among adults. The current talk will first focus on 'what we currently know about maintenance mechanisms in childhood SAD'. It will then report findings from a recent qualitative study set out to examine 'in the moment' experiences of children aged 7 to 12 years with a primary diagnosis of SAD. In order to create a social-evaluation situation and gain access to 'in the moment' social experiences of the children (rather than relying on recall or hypothetical discussions), the qualitative interviews were conducted in front of a pre-recorded 'neutral' audience. Children were interviewed about their thinking processes, how they felt (prior to and after social situations), whether they experienced negative images and shifts in attention, and whether they used safety-seeking behaviours. Using thematic analysis, findings revealed potential similarities and differences between adults and children with social anxiety disorder.

## **The Self in Social Anxiety Disorder: New Directions in Targeted Intervention**

**Convenor: David Moscovitch, University of Waterloo, Canada**

**Chair: David Moscovitch, University of Waterloo, Canada**

**Discussant: Nina Heinrichs, University of Bremen, Germany**

## **Can Imagery-Based Techniques Enhance Outcomes from Cognitive Behaviour Group Therapy for Social Anxiety Disorder? An Update on a Randomised Controlled Trial**

**Peter McEvoy, Curtin University and Centre for Clinical Interventions, Australia**

**Matthew Hyett, Curtin University, Australia**

**Samantha Bank & David Erceg-Hurn, Curtin University and Centre for Clinical Interventions, Australia**

Mental imagery is more intensely emotionally evocative than verbal-linguistic processing, and imagery-based therapeutic techniques attempt to modify cognition, affect, and behaviour by exploiting this powerful relationship. The aim of this paper is to describe a program of research investigating the impact and effectiveness of imagery-enhanced group cognitive behaviour therapy (CBT) for social anxiety disorder. Clinical and experimental research from our lab will be described, which shows that compared to more traditional verbal-linguistic approaches imagery-enhanced group CBT (a) alters psychophysiological indices of emotion regulation after a single session, and (b) can result in more rapid and larger improvements in symptoms (based on pilot and open trials). A pre-registered randomised controlled trial that directly compares imagery-enhanced group CBT to traditional verbal-linguistic CBT will also be described. One hundred and eighty four individuals were assessed between July 2016 and February 2019, of which 108 met inclusion criteria and were randomised to either verbally-based group CBT or imagery-enhanced CBT. The final cohort of treatment groups was completed in April 2019, with 1-month follow-ups in May and the final 6-month follow-up assessments due to be completed in October 2019. Primary outcomes include the Social Interaction Anxiety Scale, diagnostic status, and clinician-rated anxiety severity at 1- and 6-month follow-ups. All participants completed video-recorded Trier Social Stress Tests at pre-treatment, 1-month, and 6-month follow-ups, during which psychophysiological measures of skin conductance, heart rate variability, and respiration rate were taken. Video-recordings were also coded by blind clinicians for observable behavioural signs of anxiety. Additional self-report measures for investigation as mediators or moderators include the Negative Self-Portrayal Scale, Cognitive Avoidance Questionnaire, Vividness of Visual Imagery Questionnaire, Brief Fear of Negative Evaluation Scale, Fear of Positive Evaluation Scale, Repetitive Thinking Questionnaire, Self Consciousness Scale, Social Phobia Scale, Subtle Avoidance Frequency Examination, and Self-Beliefs Related to Social Anxiety Scale. Measures of health-related quality of life and medical consumption and productivity losses were also assessed to facilitate a health economic analysis of relative cost-effectiveness. Process measures include the Homework Rating Scale, Working Alliance Inventory, and Group Cohesion Scale. The approach that the imagery-enhanced CBT protocol takes to enhancing cognitive restructuring, behavioural experiments, reducing reliance on safety behaviours, modifying self-imagery from the observer perspective, self-focused attention, and core beliefs will be described.

## **Dismantling the Unique Effects of "Rescripting" on Memory Representations and Core Beliefs During Imagery Rescripting for Social Anxiety Disorder**

**David Moscovitch, University of Waterloo and Centre for Mental Health Research, Canada**

**Mia Romano, University of Waterloo, Canada**

**Jonathan Huppert, Hebrew University of Jerusalem, Israel**

**Susanna Reimer, University of Waterloo, Canada**

**Morris Moscovitch, University of Toronto, Canada**

Prior research has found that negative mental images in social anxiety disorder (SAD) often arise from socially painful experiences that are represented in autobiographical memory and imbued with negative meanings of self and others that are learned from such experiences. Imagery rescripting (IR) is an effective intervention for SAD that is designed to facilitate new learning by targeting these negative memories directly. In the present dismantling study, we aimed to isolate the unique effects of rescripting relative to other components of the intervention on proposed mechanisms of action. Thirty-three individuals with SAD were randomized to receive a single session of IR or one of two control conditions: imaginal exposure (IE) or supportive counselling (SC). Assessments at 1- and 2-weeks post-treatment and at 3- and 6-months follow-up included eliciting participants' memory narratives of a past negative social event and coding such narratives in a manner that reliably quantified the proportion of positive and negative episodic memory details they contained. Standardized self-report symptom questionnaires, measures of memory appraisals and core beliefs, and blinded clinical interviews were also administered. Analyses of coded memory narratives indicated that IE and IR facilitated changes in memory representations in distinct ways, suggesting that these interventions may each promote a unique mnemonic signature. Moreover, IR led to greater updating of negative core beliefs, suggesting that IR may be particularly useful for facilitating new learning that reflects schema-based changes in meanings about self and others that were originally drawn from past experiences. Finally, all three conditions produced strong changes across time in social anxiety symptoms and

memory appraisals, demonstrating that the salutary effects of IR may be at least partially accounted for by common therapeutic factors. Findings will be discussed in relation to proposed cognitive mechanisms of IR within the context of exposure-based learning during CBT.

### **The Self in Social Anxiety: Implicit Theories and Self-Criticism as Outcomes in a Trial of CBT vs. ABM**

**Jonathan Huppert, Yoni Elitzur, Asher Strauss, Yogev Kivity, Michal Weiss & Lior Cohesn, Hebrew University of Jerusalem, Israel**

According to models of social anxiety disorder (SAD), two core aspects of SAD which could be targets of change in CBT are related to the self: self-criticism and implicit theories of shyness. Self-criticism is a pathological process related to anticipatory and post-mortem processes, but more general. It is a tendency to berate or castigate oneself. Implicit theories of shyness relate to the tendency of view one's shyness as either trait (entity) or state (incremental). Both of these constructs have been shown to be elevated in patients with SAD compared to controls (high self-criticism more entity), yet neither have been examined whether these change in the context of a clinical trial of CBT. We report results of secondary analyses of a clinical trial in which CBT was compared to attention bias modification (ABM). We examine changes in self-criticism and implicit theory, and whether levels of these concepts are related to symptom improvement in time-lagged analyses. Furthermore, given the importance of interpretation biases in both the maintenance and treatment of SAD, we examine the relationship between interpretation bias and these self constructs. Results suggest that both self-criticism and implicit theories change via CBT, and that these changes appeared to have reciprocal interactions with symptom change. Interpretation biases appeared to change prior to self-criticism. These results suggest that CBT leads to changes in core views of the self and that shifting interpretation biases may be a key driver of such change.

### **Social Developmental Experiences, Self-Concealment, and Social Belonging**

**Lynn Alden, Cris Bude & Klint Fung, University of British Columbia, Canada**

We examined the way in which adverse childhood social experiences affect the person's sense of self and social anxiety, and the links between those factors and a sense of social belonging, drawing on data from three independent samples. One focus of the work was on the use of self-concealment as a safety behavior. Participants completed laboratory (sample 1, N = 87) or online questionnaires (samples 2, N = 188, and 3, N = 200) that included validated measures of social developmental experiences (Childhood Trauma Questionnaire, Bernstein et al., 2003; Peer Victimization Scale, Stapinski et al., 2014) and social anxiety symptoms (Social Interaction Anxiety Scale, S-SIAS; Rodebaugh et al., 2007), as well as several measures of social belonging, most notably the Social Connectedness Scale (SCS- Revised, Lee & Robins, 1995). In addition, we assessed several self-aspects, including self-concealment (Larson & Chastain, 2003) and self-clarity (Campbell et al., 1996). Results from all three samples revealed a significant relationship between social anxiety symptom severity and family emotional abuse with a lesser, but significant, relationship with peer victimization. Using sample 1 data, we developed a model of the relationship between these variables that hypothesized that self-concealment would explain the relationship between emotional abuse and social anxiety severity, which in turn would reduce the person's sense of social connection. Path analysis was conducted to evaluate this and several alternative models in samples 2 and 3. Results confirmed the hypothesized model in both samples. These findings are consistent with cognitive models that emphasize the role of the self in SAD and with theoretical formulations that propose that fear of revealing oneself impairs social well-being. Treatment for SAD may benefit from identifying the way in which social learning experiences affected the person's self-views and from working to overcome the perceived need to hide one's true self from others.

### **Global Dissemination: Delivering Internet Cognitive Therapy for Social Anxiety Disorder**

**Convenor: Graham Thew, University of Oxford, United Kingdom**

**Chair: Graham Thew, University of Oxford, United Kingdom**

**Discussant: Patrick Leung, Chinese University of Hong Kong, Hong Kong**

### **Incorporating Face-to-Face and Internet-Based Cognitive Therapy for Social Anxiety Disorder into Japan**

**Naoki Yoshinaga, University of Miyazaki, Japan**

In this presentation, I will discuss the translation and cultural adaptation of cognitive therapy (CT) for implementation in Japan. We have been incorporated/adapted the theoretical orientations underlying cognitive models of social anxiety disorder (SAD) and treatment interventions developed in Western cultures (Clark & Wells model, 1995) into Japan. More specifically, we initially developed a treatment protocol of individually delivered CT for Japanese SAD based on the Clark & Wells model, and evaluated its feasibility in a pilot study (Yoshinaga et al., BMC Res Notes, 2013). Through this process, we also published case study presenting a detailed argument that CT developed in Western cultures may be effective for Japanese SAD patients with some considerations of cross-cultural influences (Yoshinaga et al., Cogn Behav Therapist, 2013). Then, we clarified the clinical effectiveness of individual CT for patients with SAD who remain symptomatic following antidepressant treatment through a randomised controlled trial (Yoshinaga et al., Psychother Psychosom, 2016). We are now starting joint research with Oxford to develop and evaluate a Japanese version of the internet-delivered CT program. Drawing on recent work with the internet CT program, as well as case study and randomised controlled trial data using the face-to-face format of treatment, the presentation will introduce our clinical trial conducted in Japan, and our careful translation process of the internet CT program of how we adapted and modified the details of the program.

### **Internet-Based Cognitive Therapy for Social Anxiety Disorder in Hong Kong: A Randomised Controlled Trial**

**Graham Thew, University of Oxford, United Kingdom**

**Amy PL Kwok, Hospital Authority, Hong Kong**

**Candice YML Powell, New Life Psychiatric Rehabilitation Association, Hong Kong**

**Mandy H Lissillour Chan, Hospital Authority, Hong Kong**

**Jennifer Wild, University of Oxford, United Kingdom**

**Patrick WL Leung, The Chinese University of Hong Kong, Hong Kong**

**David M Clark, University of Oxford, United Kingdom**

Internet-based psychological therapies have significant potential for addressing unmet mental health needs around the world. However, for this to be achieved, online treatments need to be examined carefully to see whether they are feasible and effective in different cultural contexts.

Internet-based Cognitive Therapy for Social Anxiety Disorder (iCT-SAD) was developed in the UK and has shown high efficacy in initial UK-based studies. The aim of the present work was to evaluate iCT-SAD in a different cultural setting, Hong Kong. As iCT-SAD is a therapist-guided treatment, we started by developing and evaluating a programme of therapist training with three local clinical psychologists. Subsequently we evaluated iCT-SAD in a randomised controlled trial with a waitlist control group (total n = 44). The treatment was delivered in English with minimal cultural adaptation as we wished to also assess whether there is a need for major cultural adaptation. Results indicated the treatment was highly effective when delivered in this manner (between-group pre-post Cohen's  $d = 2.89$ ), with 86% of the treatment group meeting criteria for remission from SAD, compared to 5% of the control group. This presentation will outline the study methods and results in more detail, discuss the need for scalable therapist training methods for online treatments, and review the implications this work has for how cultural adaptation might be performed during the dissemination process.

### **Seeing is Believing: The Efficacy of Internet-Delivered Video Feedback for Social Anxiety Disorder**

**Jennifer Wild, Emma Warnock-Parkes & Graham Thew, University of Oxford, United Kingdom**

**Candice L Powell, New Life Psychiatric Rehabilitation Association, Hong Kong**

**Mandy Chan & Amy Kwok, Hospital Authority, Hong Kong**

**Patrick W L Leung, Chinese University of Hong Kong, Hong Kong**

**David M. Clark, University of Oxford, United Kingdom**

Video feedback is a core treatment component of cognitive therapy for social anxiety disorder (CT-SAD) based on the Clark and Wells (1995) model. There are four key aims of video feedback, the primary ones being to demonstrate for clients the discrepancy between how they look and how they feel, and to update their negative self-imagery with more realistic, accurate images. When delivered as part of standard CT-SAD, the therapist is on hand to guide the client to watch the video objectively and to make ratings based on what they can see and hear rather than on what they remember feeling. McManus et al. (2009) demonstrated that video feedback, as part of a course of CT-SAD, leads to significant improvements in clients' perceptions of their social performance as well as significant reductions in ratings of their social fears. It is unclear whether video feedback can be delivered effectively online without synchronous therapist communication. Here we evaluated the efficacy of video feedback as part of therapist supported internet-delivered cognitive therapy for social anxiety disorder (iCT-SAD) for N=88 patients (N=50 based in the UK, and N=38 based in Hong Kong). Patients completed a module on how to watch their conversation videos, rated how well they thought they would perform, and how much they believed their social fears would be visible in their video recordings. They then watched their videos and re-rated their predictions. Patients demonstrated significant improvements in ratings of social performance from pre-to-post viewing, as well as significant reductions in ratings of their social fears. These results suggest that video feedback can be successfully delivered online as part of iCT-SAD and that this core intervention can be delivered without synchronous therapist communication, demonstrating the accessibility of iCT-SAD for wider dissemination.

### **Patient Experience of iCT-SAD in Hong Kong**

**Amy Kwok, Hospital Authority, Hong Kong**

**Graham Thew, University of Oxford, UK**

**Candy Powell, New Life Psychiatric Rehabilitation Association, Hong Kong**

**Mandy Lissillour Chan, Kowloon Hospital, Hong Kong**

**David M. Clark, University of Oxford, United Kingdom**

**Objective:** Successful transportation of online therapies could increase accessibility of evidence based psychological treatment internationally and interculturality. Patient experience is instrumental in assessing feasibility and acceptability of such dissemination. **Methodology:** Following the 14-week iCT-SAD and 3-month booster sessions, all participants were invited to complete an exit survey on their experience. A portion of participants were interviewed to provide extra information on their experience of iCT-SAD. **Results:** Of all participants (N=39) who completed treatment, thirty six of them completed the exit survey. All respondents were 'mostly' or 'completely' satisfied with the online therapy. Also, participants found the iCT-SAD platform easy to use and felt the content helpful to them. Participants appreciated the flexibility and content of internet treatment. They also found the short weekly phone calls with therapist helpful and important. All participants interviewed reported learning to use behavioural experiments as the key learning in iCT-SAD. Flexibility in time arrangement was reported as a major advantage of iCT-SAD.

**Conclusions:**

Participants reported high levels of satisfaction with iCT-SAD, suggesting successful transportation of the treatment from the UK to Hong Kong with minimal cultural adaptation. This presentation will outline in more detail participants' likes and dislikes, and the implications this has for further dissemination of iCT-SAD in Hong Kong.

### **The Effects of Neurostimulation on the Extinction of Fear**

**Convenor: Andreas Burger, Katholieke Universiteit Leuven, Belgium**

**Chair: Andreas Burger, Katholieke Universiteit Leuven, Belgium**

### **Vagus Nerve Stimulation Enhances Extinction and Reduces Anxiety in Animal Models**

**Christa McIntyre, Rimenez Souza, Lindsey Noble, Seth Hays & Michael Kilgard, University of Texas, USA**

Exposure-based therapies help patients with posttraumatic stress disorder (PTSD) to extinguish conditioned fear responses to reminders of a trauma. However, controlled laboratory studies indicate that PTSD patients do not extinguish conditioned fear as well as healthy controls, and exposure therapy has high failure and dropout rates. An optimal adjunct to exposure therapy would promote the consolidation of persistent extinction memories and attenuate the stress response experienced in therapy in order to make the therapy more efficient and tolerable. However, anxiolytic medications can interfere with the consolidation of extinction memories. Vagus nerve stimulation (VNS) enhances memory consolidation, and we recently reported evidence that VNS enhanced the consolidation of extinction memory, and prevented reinstatement of conditioned fear in the single prolonged stress (SPS) rat model of PTSD. More recently, we discovered that VNS given before testing naïve rats on the elevated plus maze increased time spent in open arms, suggesting that the VNS parameters that enhance extinction were sufficient to reduce anxiety within minutes. However, it is unlikely that a lasting anxiolytic effect of VNS is the reason for extinction enhancement because non-contingent VNS does not enhance extinction. Our findings to date indicate that VNS takes advantage of mechanisms that are involved in the enhancement of consolidation of emotionally arousing memories, but bypasses the sympathetic stress response. Consistent with this hypothesis, just as learned fear associations tend to be generalized, we found that VNS promotes

generalization of extinction of fear across conditioned auditory cues when the conditioning occurred within the same session. Taken together, these findings suggest that VNS possesses a rare combination of effects that include the enhancement and generalization of extinction memories, and reduction of anxiety. Our results suggest that VNS may improve efficacy and tolerability as an adjunct to exposure therapy for the treatment of PTSD.

### **Neuroenhancement of Adaptive Responding: Improving Fear Extinction Learning by Single Non-Invasive Vagal Stimulation of the Brains Inhibitory Pathways**

**Christoph Szeszka, Julia Wendt, Alfons O. Hamm & Jan Richter, University of Greifswald, Germany**

**Mathias Weymar, University of Potsdam, Germany**

Anxiety disorders are associated with maladaptive defensive behavior like avoidance or attentive freezing in response to safe stimuli. The gold-standard in treating anxiety disorders and recovering defensive adaptivity are exposure-based treatments for which fear extinction learning is discussed to be an underlying mechanism. Fear extinction learning describes the active learning process that a previously threat predicting stimulus is no longer signaling danger. However, deficient extinction learning is commonly found in anxiety patients, which may thus lead to the present high percentages of non-responders and relapses after apparently successful cognitive behavioral therapy. Current neurobiological theories propose a crucial role of the noradrenergic system in facilitating extinction learning and promoting adaptive responding towards safety signals, by way of neurochemical inhibition of the neural circuitry that underlies threat responding. Non-invasive, transcutaneous stimulation of vagal afferents (tVNS) during exposure is thought to enhance (noradrenergic) activation of these inhibitory pathways. We therefore investigated, whether tVNS enhances fear extinction learning and its subsequent short- and long-term recall. Eighty participants underwent a fear conditioning phase on assessment day 1, where a CS became fear-eliciting by repeated pairings with an electrical shock (US). Twenty-four hours later, an extinction training (ca. 10 min) followed, either under the influence of tVNS or sham stimulation. Twenty-four hours and 28 days after initial extinction we tested for tVNS-effects on short- and long-term recall of extinction memory respectively. Conditioned fear was measured using US expectancy ratings, while fear potentiated startle responses and skin conductance responses (SCR) served as physiological indicators of defensive responding. We found, that a single extinction training under the influence of tVNS promoted initial declarative and behavioral extinction learning, indicated by a stronger reduction of US expectancies and SCRs. More remarkable, tVNS also led to prevention of behavioral return of fear and enhanced declarative and behavioral extinction recall even after 28 days. These findings indicate that non-invasive vagal stimulation may be a promising CBT add-on to reduce non-responding to and relapses after exposure-based treatment of anxiety disorders.

### **Effects of Non-Invasive Vagus Nerve Stimulation on Generalization and Extinction of Fear**

**Andreas M. Burger & Ilse Van Diest, Katholieke Universiteit Leuven, Belgium**

**Willem van der Does, Jos Brosschot & Bart Verkuil, Leiden University**

The overgeneralization of fear memories is thought to be an important determinant of the onset, maintenance, and recurrence of anxiety disorders. Animal research has shown that vagus nerve stimulation (VNS) may affect neuronal pathways that lie at the heart of stimulus discrimination and generalization processes. This suggests that VNS can be used to reduce individuals' propensity to generalize fear memories in novel situations. In a one-day study, we tested whether transcutaneous stimulation of the auricular branch of the vagus nerve (tVNS) reduces the generalization of fear and strengthens subsequent fear extinction in humans. Fifty-eight healthy students were subjected to a fear conditioning paradigm consisting of a fear acquisition phase, a generalization phase and finally a fear extinction phase. Participants were randomly assigned to receive either tVNS or sham stimulation during the generalization and extinction phases. tVNS did not affect fear generalization, as reflected by US expectancy ratings and fear potentiated startle responses. However, participants who received tVNS reported lower US expectancy ratings to the CS+ during the extinction phase, possibly reflecting a stronger declarative extinction of fear. No effects of tVNS on fear potentiated startle responses during extinction were found. The pattern of findings regarding extinction of declarative fear suggest that tVNS may facilitate the extinction of fear.

### **Testing the Effects of Transcutaneous Vagus Nerve Stimulation on Reversal Learning and its Underlying Working Mechanism**

**Martina D'Agostini, Andreas M. Burger & Nathalie Claes, Katholieke Universiteit Leuven, Belgium**

**Mathias Weymar, University of Potsdam, Germany**

**Johan W.S. Vlaeyen, Andreas von Leupoldt, Stephan Claes & Ilse Van Diest, Katholieke Universiteit Leuven, Belgium**

Transcutaneous vagus nerve stimulation (tVNS) accelerates extinction learning in humans. Findings from animal studies employing invasive VNS suggest an enhancement in central Noradrenaline as a possible mechanism underlying such finding. We aimed to investigate whether tVNS enhances reversal learning and error-driven attention in a predictive-learning task, which has previously been found to be sensitive to a pharmacological noradrenergic manipulation. Additionally, the effects of tVNS on noradrenergic activity and cortisol at rest were assessed. 71 healthy participants, all tested between 1 and 8 PM, were randomly assigned to receive electrocutaneous stimulation on either the cymba concha (tVNS) or lobe (sham) of the left ear. After learning a series of cue-outcome associations during the acquisition phase, participants received the stimulation 10 minutes before and during the reversal learning phase, where cue-outcome associations were changed for some cues but not for others. Percentage of correct predictions and change in pupil size in anticipation of the outcome (i.e., index of error-driven attention) were assessed. In addition, resting pupil size and salivary alpha-amylase (both employed as noradrenergic biomarkers), and cortisol were assessed at three points in time: t0 (prior to acquisition), t1 (after acquisition but prior to stimulation), and t2 (after reversal). Preliminary findings indicate that there was no significant difference between tVNS and sham on reversal learning and salivary alpha-amylase. In contrast to the sham group, cortisol did not decrease from t1 to t2 in the tVNS group, suggesting that tVNS has the potential to counteract the natural decline in cortisol during the afternoon. These findings will contribute to our understanding of the mechanisms underlying the effects of tVNS on associative learning.

### **Modulation of Fear Extinction by Non-Invasive Brain Stimulation**

**Martin Herrmann, Universitätsklinikum Würzburg, Germany**

Although stress and anxiety related disorders are highly prevalent in modern times, the effectiveness of their therapy is still unsatisfying. Recently, a number of studies investigated the effects of non-invasive brain stimulation in combination with psychotherapy. A systematic review on this issue shows a positive additional effect of brain stimulation in the medium range. To further improve the effectiveness of brain stimulation in combination with psychotherapy it was argued to focus more on fear-related processes, like fear learning or fear extinction. Therefore we aimed to systematically review all studies, which investigated the effect of non-invasive brain stimulation on fear and



extinction learning to come to a valid conclusion. The literature search was conducted using the databases of PubMed, Science Direct, OVID, Cochrane, Scopus, and MEDLINE. In total, 6 randomized controlled trials could be found and were analyzed. With respect to fear extinction, studies using transcranial direct current stimulation (tDCS), as well as repetitive transcranial magnet stimulation (rTMS), have found a positive effect on fear extinction by targeting the ventromedial prefrontal cortex. But until now, no of these studies have been replicated yet.

## **Virtual Reality in Behavioral and Cognitive Therapies**

**Convenor: Paul Pauli, University of Würzburg, Germany**

### **Virtual Reality to Improve CBT**

**Paul Pauli, University of Würzburg, Germany**

Virtual Reality and Augmented Reality technology that offer new options to enhance Behavioral Cognitive Therapies. This presentation will discuss VR studies designed to test crucial assumptions of CBT as well as possibilities to improve CBT by incorporating VR technology. The paradigmatic example will be exposure therapy in virtual reality (VRET) which, as confirmed by meta- analyses, is an efficient alternative to in-vivo exposure therapy.

The first part of the presentation will explain virtual reality (VR) technology and basic studies demonstrating that VR is able to elicit fear responses on verbal, physiological and behavioral levels. The second part of the talk will discuss selected studies examining options to use VR to reduce return of fear and treatment relapses based on theoretical assumptions derived from conditioning theory. In addition, a VRET study examining differential effects of cognitive preparations for exposure derived from habituation models or inhibitory learning models will be presented. Finally, VR studies examining basic mechanisms of fear learning will be introduced and discussed regarding their relevance for CBT.

### **Efficacy in Virtual Reality Therapy: An Individual Patient Data Meta-Analysis**

**Javier Fernández-Álvarez, Catholic University of the Sacred Heart, Italy**

**Cristina Botella, Jaume I University, Spain**

**Javier Fernández-Álvarez, Catholic University of the Sacred Heart, Italy**

**Desirée Colombo, Jaume I University, Spain**

**Giuseppe Riva, Catholic University of the Sacred Heart, Italy**

**Azucena García-Palacios & Cristina Botella, Jaume I University, Spain**

**Introduction:** Ample evidence supports the use of Virtual Reality Therapy (VRT) for anxiety and stress related disorders. Throughout 20 years of research there have been continuous advancements, not only in the quality of studies but also in the diversity of populations included as well as the technological progresses developed. All those steps forwards are accurately compiled in several meta-analysis and systematic reviews. Nonetheless, there is no individual patient data meta-analysis (IPDMA) establishing the efficacy of VRT.

**Methods:** A systematic review of the literature was conducted that aims to identify all the randomized control trials in Virtual Reality for anxiety and stress related disorders. Raw data from all the identified studies was requested to the corresponding authors. Pre-test scores to the post-test scores using the Reliable Change Index (RCI) will be calculated. The RCI reflects whether a change score between two measurement points is reliable and not caused solely by measurement error. Patients exceeding an RCI of 0.84 in a positive direction will be dummy coded as being reliably improved (1 = yes, 0 = no). This information will be later used to investigate possible predictors of improvement, using outcome as the dependent variable in a logistic regression that implemented forced entry, i.e., all predictors were entered simultaneously.

**Results:** A total of 36 studies fulfilled the inclusion criteria, from which 15 datasets were retrieved from the respective authors. 810 patients constitute the sample of the study, from which 348 received a VR treatment, 282 received other active treatment, and 180 were in a waiting list condition. With regard to the clinical conditions, 230 patients were diagnosed with social anxiety disorder, 60 with agoraphobia, 17 with panic disorder, 225 with specific phobias, and 80 with post-traumatic stress disorder. Meta-analytic results following the methodological strategy described above are pending to be conducted.

**Discussion:** In this presentation the results will be discussed in terms of their clinical and research implications regarding the current status and future challenges of Virtual Reality therapy in the clinical psychology realm.

### **Virtual Social Scenarios for Research and Treatment of Specific and Social Phobia**

**Andreas Mühlberger & Theresa Wechsler, University of Regensburg, Germany**

Psychotherapy in general is based on social interactions, and furthermore most situations relevant for anxiety disorders, especially social anxiety, involve social interactions. That is why the creation and evaluation of virtual social interactions is an important task in the field. However, establishing ecological valid social interactions is technically complex, because their dynamic development can not easily be predefined.

The most prominent feared social situation is public speaking, which is a very structured and controlled social interaction. In Virtual Reality (VR), public speaking scenarios could be created with affordable investments and be applied in a broad range of participants. Thus, several studies on behavioural exercise for giving a talk in front of a virtual audience have been conducted. They show that the situation activate fear response and are accepted by the participants as social situations. As a specific research question, results of one study showed that the participants' attention focus during public speaking could be manipulated through a VR training program, monitored by eye tracking within the VR. We conclude that virtual social interactions can be used effectively. Additionally, measures of behaviour, especially overt attention by VR eye tracking, is an innovative and interest tool within behavioural exercises in VR.

Beside using virtual social situation for specific interventions during psychotherapy, the use for diagnostic measures is an emerging and interesting field. During virtual social situations, measures of subjective condition, heart rate, electrodermal activity, or endocrine parameters can easily be conducted and facilitate detailed insights in the participants psychophysiological reaction. One prominent task to investigate stress responses is the Trier Social Stress Test (TSST). Results on several evaluations of a virtual version of this test (VR-TSST) will be presented, which show that a VR-TSST could be used to investigate stress responses in both woman and man. Also in this context, VR eye tracking was used as a feasible option to measure attention processes during acute psychosocial stress. Further virtual social situations and results on its evaluation, for example requesting a reserved seat in a train or demanding a cancellation in a travel agency, will also be part of the presentation.

Taken together, technical options are ready to employ virtual social agents in behavioural exercises. Results on their use for research and psychotherapy are promising. Further developments within the domain of Artificial Intelligence will lead to significant unimagined options to implement virtual agents for cognitive behavioural psychotherapy. Beside the creation of larger, more engaging and ecological valid agents and virtual social interactions, the development of virtual agents as assistance in psychotherapy will be an emerging, maybe disruptive field.

### **Using Virtual Reality to Study and Modify Cognitions in Cognitive-Behavior Therapy: Theoretical Rationales and Experimental Results**

**Silviu Matu & Daniel David, Babeş-Bolyai University, Romania**

**Introduction:** The integration of virtual reality (VR) with cognitive-behavior therapy (CBT) has been a productive avenue for the treatment of anxiety disorders, with such application moving now from the research field to the clinical realm. However, much of the previous work has mainly focused on the exposure component of the treatment, despite the fact that cognitive restructuring techniques play an important role in CBT interventions for some of these disorders. This is also contrasting with the fact that the proponents of this technology have brought forward the idea that VR could be used as an ecological and controllable tool to study and alter in real time the process that are underlying mental health problems. Indeed, VR has successfully been used to investigate and challenge the dysfunctional thinking patterns that are characteristic to other psychological problems, such as paranoid ideation and negative body image distortions. This presentation will describe two studies that explore the possibility of using VR to identify and restructure dysfunctional cognitions that are specific to social anxiety and height anxiety.

**Study 1:** The first study combined an impromptu speech procedure and a think aloud protocol in order to compare the frequency of negative automatic thoughts and distress experienced by participants when speaking in front of a camera or speaking in front of a virtual audience expressing discrete negative feedback. Sixty-five participants were randomly assigned to one of the two conditions and were asked to give accurate details of their stream of thoughts at specific time intervals during the speech. Results based on standardized have indicated that the participants that were allocated to speak in front of the virtual audience experienced less frequent negative thoughts and lower levels of distress.

**Study 2:** In the second study, 115 participants that reported clinical levels of height anxiety were randomly assigned to one of four treatments, each implying a prolonged session of VR-CBT, varying by the type of technology (a commonly used head mounted display vs. an immersive CAVE environment) and by the type of intervention (exposure vs. exposure combined with cognitive-restructuring). Pre- and post-test self-report and behavioral measures of anxiety were collected. Results indicated no interaction effects between time of measurement, type of technology and type of intervention, but a significant time effect emerged, indicating that all interventions led to a similar decrease in heights anxiety.

**Discussion:** More research is needed in order to understand how virtual stimuli activate and alter the cognitions that are specific to anxious individuals. Our results rise some questions related to the mechanisms of VR-CBT, pointing that virtual environments might facilitate distraction, which has been linked to the efficacy of exposure procedures. Moreover, these results point that more immersive VR environments might not necessarily bring more clinical utility. Finally, we discuss future directions for investigating how VR could be used for implementing cognitive techniques and if such techniques might increase the efficacy of VR-CBT.

### **Optimizing Exposure Treatments for Anxiety Disorders and Understanding their Mechanisms of Change: The German Psychotherapy Research Initiative on Anxiety Disorders (PANIC-NET, PROTECT-AD)**

**Convenor: Jan Richter, University of Greifswald, Germany**

**Chair: Hans-Ulrich Wittchen, Technische Universität Dresden and Ludwig-Maximilians-Universität, Germany**

**Discussant: Stefan Hofmann, Boston University, USA**

### **Mechanisms of Exposure-Based CBT in Panic Disorder Under Special Consideration of Comorbidity: A Prospective-Longitudinal Multicenter fMRI Study**

**Ulrike Lueken & Stefanie Kunas, Humboldt-Universität zu Berlin, Germany**

**Fabian Seeger, University Hospital of Wuerzburg, Germany**

**Tim Hahn, University Hospital of Muenster, Germany**

**Thilo Kircher, Phillips-University Marburg, Germany**

**Hans-Ulrich Wittchen, Technische Universität Dresden, Germany**

**Background.** Panic disorder rarely comes alone, but is characterized by substantial comorbidity rates particularly from the internalizing spectrum. From a clinical perspective, the feasibility and effectiveness of exposure-based CBT under comorbid conditions has been questioned. From a basic research perspective, the extent to which comorbid disorders may confound neurobiological signatures of the primary disorder has rarely been targeted. Based on a comprehensive sample from a German multicenter clinical trial that was deeply phenotyped to elucidate the underlying neurobiological mechanisms, we here present findings on the neurofunctional basis of panic disorder and CBT-associated neuroplastic effects under special consideration of comorbidity.

**Methods.** Supported by a German Mental Health funding program from the Federal Ministry of Education and Research, data were derived from a multicenter platform (Panic-Net) that conducted a large-scale prospective-longitudinal randomized controlled trial on exposure-based CBT including  $n = 369$  patients with panic disorder and agoraphobia (PD/AG). Comorbid disorders including depression and other anxiety disorders were allowed unless being the lead diagnosis. Patients were treated with a 12-session manualized CBT protocol focusing on behavioral exposure. Before and after treatment, a subsample of patients ( $n = 42$ ) underwent functional magnetic resonance imaging (fMRI) using a differential fear conditioning task as a neurofunctional probe of interest. In addition to group-based comparisons, machine learning approaches were used to generate predictive markers on the individual patient level.

**Results.** Approx. half of the sample was affected by either a comorbid depressive (PD/AG+DEP) or social anxiety disorder (PD/AG+SAD), thus reflecting the high ecological validity of the Panic-Net sample. CBT specifically tailored the PD/AG was equally effective in patients with or without depressive or SAD comorbidity. Furthermore, depressive and SAD symptoms were significantly reduced by addressing PD/AG symptomatology. On a neural level, the signature of PD/AG was superimposed by comorbidity patterns: PD/AG+DEP patients showed underactivation in prefrontal circuits, while PD/AG+SAD patients were characterized by enhanced activation in object recognition pathways within the temporal gyrus. Although CBT was equally effective in these groups, differential neural pathways were recruited. Multivariate pattern recognition was able to predict comorbidity rates in individual patients based on functional activation patterns with an accuracy of 73% for PD/AG+DEP ( $p < 0.001$ ).

Discussion. Exposure-based CBT in primary PD/AG is an effective treatment option also in patients with comorbid conditions from the internalizing spectrum. Targeting PD/AG symptoms first may furthermore reduce the burden of comorbid disorders to a certain extent. From a neuroscience perspective, presence of comorbid disorders may confound the neural signature of the primary disorder. Addressing comorbidity profiles is thus highly warranted. Altered neuroplastic mechanisms induced by CBT as a function of comorbidity may inform us about differential routes the same treatment may take in subgroups of patients. These findings may add to our understanding of disorders as a combination of basic dysfunctions, including the neural systems level.

### **Anxiety Disorders from a Behavioral Neuroscience Perspective and its Implication for Exposure Based CBT**

**Jan Richter, University of Greifswald, Germany**

With the objective to increase the mutual translation between basic and clinical research we started to re-conceptualize the categorical diagnoses of panic disorder and agoraphobia in terms of a basic model of threat processing stating that defensive responses are dynamically organized along the dimension of the proximity of threat. Using collected data during a behavioral avoidance test (avoidance behavior, subjective fear ratings, brain reflex modulation, and autonomic arousal) in two samples of patients (N=369 and N=124) within the PANIC-NET we found evidence that panic attacks can be considered as abrupt and intense fear responses to acute threat arising from inside the body. In contrast, anxious apprehension refers to anxiety responses to potential harm and more distant or uncertain threat. Several subsequent analyses identified psychological and genetic moderators to be specifically associated to different defensive states. Importantly, the dominant defensive responding during the task did predict the outcome of the following exposure-based CBT protocol in several ways suggesting the behavioral neuroscience perspective to be a promising framework to model an empirically based individualized treatment approach. In a second research step, we now test whether differences in fear and anxiety related pathology might be associated with differences in fear extinction learning, which is assumed to be a central mechanism of change during exposure-based CBT. Using an optimized learning paradigm with high content-validity to treatment procedures we identify the patients' capacity of fear extinction learning in over 700 patients with primary anxiety disorders within PROTECT-AD using subjective, physiological, and neural outcomes. Performances are associated with symptom patterns and exposure-based CBT efficacy, but also with psychological and genetic moderators. The talk will give an overview of the behavioral neuroscience model of fear and anxiety related pathology and will summarize the results available so far.

### **Optimizing Exposure Treatments for Anxiety Disorders and Understanding their Mechanisms of Change: The German Psychotherapy Research Initiative on Anxiety Disorders (PANIC-NET, PROTECT-AD)**

#### **Usage of and Reservation Against Exposure-Based Interventions Among Behavior Therapists in Germany**

**Juergen Hoyer & Elena Rumin, Technische Universität Dresden, Germany**

**Andre Pittig, Universität Würzburg, Germany**

We present two studies which aimed to provide more insight into the dissemination barriers of exposure-based interventions. The self-reported frequency of using exposure and four categories of potential barriers were examined: i) barriers regarding the practicability of exposure-based intervention, ii) therapist distress related to its use, iii) negative beliefs about exposure, and iv) problematic health care regulations. In addition, the self-reported competence to conduct exposure was assessed for different anxiety disorders and therapists indicated to what degree they considered guided exposure as necessary.

A survey covering the above-mentioned variables was developed and sent to licensed behavioral psychotherapists working in outpatient routine care in two regions of Germany. N = 684 licensed therapists responded in the first, N = 355 in the second wave of the survey (two years later).

All categories of barriers proved relevant, with practicability issues (e.g., time management, cancellation of sessions) being approved most frequently. All categories were negatively correlated with self-reported utilization rates. In addition, all barriers were positively inter-correlated to a moderate degree and negatively correlated with the subjective competence to conduct exposure. Interestingly, after two years those therapists who had received advanced training in the meantime, saw fewer barriers to exposure interventions. Furthermore, about 40% of the therapists endorsed that many patients make good progress even without exposure.

Personal and health-care system variables interact in promoting versus blocking the dissemination of exposure. Ideas to enhance the appropriate routine usage of exposure via improving training and supervision will be put forward and discussed.

Keywords: exposure therapy, anxiety disorders, dissemination, routine care, barriers

### **Transdiagnostic Group Cognitive-Behaviour Therapy for Anxiety Disorders: Results of a Large Community-Based Pragmatic Randomized Controlled Trial**

**Convenor: Pasquale Roberge, Université de Sherbrooke, Canada**

**Chair: Martin D. Provencher, Université Laval, Canada**

**Discussant: Debra Hope, University of Nebraska–Lincoln, USA**

#### **Transdiagnostic Group Cognitive-Behaviour Therapy for Anxiety Disorders: Study Design and Outcomes of a Pragmatic Trial**

**Pasquale Roberge, Université de Sherbrooke, Canada**

**Martin D. Provencher, Université Laval, Canada**

**Isabelle Gaboury, Helen-Maria Vasiliadis & Patrick Gosselin, Université de Sherbrooke, Canada**

**Martin M. Antony, Ryerson University, Canada**

**Peter J. Norton, Monash University, Australia**

Cognitive behaviour therapy (CBT) is the most consistently efficacious psychological treatment for anxiety disorders, but the implementation of CBT in community-based mental healthcare is often limited due to a lack of resources and expertise. Transdiagnostic group CBT (tCBT) could contribute to a better access to evidence-based psychotherapy. The protocol developed by Norton (2012) is a 12-session group tCBT for anxiety disorders that focuses on cognitive and behavioural processes common to different anxiety disorders, with psychoeducation, cognitive restructuring and exposure strategies. While treatment efficacy of group tCBT has been examined in clinical trials conducted in specialized clinics, the effectiveness of group tCBT for anxiety disorders in community-based mental health care has not yet been examined.

To address this knowledge gap, a multicenter pragmatic randomized clinical trial was conducted in Québec, Canada. The trial included 233 patients with Generalized Anxiety Disorder, Social Anxiety Disorder, Panic Disorder or Agoraphobia. Participants were randomly assigned to a 12-week tCBT manualized group treatment for anxiety disorders and treatment-as-usual (TAU), compared to TAU only. There were no restrictions on service utilization for TAU. The primary outcome measures were the self-reported Beck Anxiety Inventory and the clinician-administered Anxiety and Related Disorders Interview Schedule for DSM-5 (ADIS-5). The assessment periods included a pre-treatment, post-treatment, and follow-up at 4, 8 and 12-months design. In this presentation, we will describe the pragmatic trial design and present the original results for the primary outcomes at the post-treatment assessment. Twelve tCBT groups were delivered between October 2016 and May 2018 to participants of the experimental condition. Primary therapists were PhD-level private practice psychologists with CBT expertise, and co-therapists reflected the range of clinical backgrounds in the public sector. Intention-to-treat analysis were conducted, and a mixed effects regression model was used to account for between- and within-subject variations in the analysis of the longitudinal effects of the intervention. Results show superior effects of the tCBT intervention over usual care alone at post-treatment for both clinician-rated and self-reported anxiety symptoms. This rigorous evaluation of tCBT will provide valuable information regarding the effectiveness of the intervention in a community-based mental health care context, and could lead a more equitable access to evidence-based CBT for patients with anxiety disorders.

### **Therapeutic Integrity and Participant Adherence: Influence on Group tCBT Effectiveness**

**Martin D. Provencher, Université Laval, Canada**

**Peter J. Norton, Monash University, Australia**

**Pasquale Roberge, Université de Sherbrooke, Canada**

In this presentation, we will discuss factors that may influence clinical outcomes and should be considered in the interpretation of the findings, such as therapeutic integrity of the intervention delivered by the therapists and patient adherence to group tCBT. Over half (54.6%) of the participants randomized to the experimental condition adhered to tCBT treatment and were present at 9 or more of the 12 sessions. Of the remaining participants, 20.2% were partially adherent (4 to 8 sessions), 13.4% were non-adherent (3 sessions or less) and 11.8% did not attend any session. As expected, participants that were adherent (9 sessions or more) had a significantly greater decrease on self-reported anxiety as measured by the Beck Anxiety Inventory (BAI) compared to participants that were non-adherent (8 sessions or less). Therapists' competence and treatment adherence to the tCBT protocol was assessed by a random review of 33% of session recordings with a treatment integrity rating scale developed by the intervention author. While adherence rates were adequate for a pragmatic trial, overall ratings were lower than in published randomized controlled trials. Treatment integrity was not significantly related to outcome on self-reported anxiety (BAI). Of note, therapeutic integrity for exposure sessions (session 4 to 9) was significantly lower than initial (session 1 to 3) and later (session 10 to 12) sessions focusing on psychoeducation and cognitive restructuring. Lessons learned from this analysis suggest increased therapist training and support could promote therapists' adherence to specific tCBT protocol components such as exposure strategies. Furthermore, the acceptability of intensive exposure sessions for patients needs further investigation given that 45.4% of patients only attended 8 sessions or less. Study results will contribute to the development of implementation strategies (e.g. enhanced training program to support capacity building) and offer perspectives on increasing patient adherence to enhance outcomes.

### **Transdiagnostic Group Cognitive-Behaviour Therapy for Anxiety Disorders: Effects on Comorbid Diagnoses**

**Peter J. Norton, Monash University, Australia**

**Pasquale Roberge, Université de Sherbrooke, Canada**

**Martin Provencher, Université Laval, Canada**

Anxiety disorders and depression are the most common and societally burdening mental illnesses worldwide. Most people seeking treatment for an anxiety or depressive disorder suffer from more than one condition. Yet, most evidence-supported CBT approaches target only one disorder at a time, resulting in the need to treat comorbid disorders sequentially. More recently, innovative transdiagnostic CBT protocols have been developed that simultaneously treat principal and comorbid disorders, which has the potential to more efficiently reduce patient suffering and substantially reduce treatment costs. Although preliminary data suggested superior remission of comorbidity using group Transdiagnostic CBT (tCBT) versus diagnosis-specific CBT, one recent clinical trial found no evidence of superiority of the Unified Protocol over diagnosis-specific CBT on comorbid diagnoses. Of the total trial sample of 231 patients, 189 had a comorbid diagnosis of clinical severity at T0 and complete data at T1. Overall rates of comorbidity decreased over time (82.0% at T0 to 45.0% at T1) but although no differences in rate of comorbidity were observed between tCBT and TAU (84.6% vs. 80.7%) at T0, those receiving tCBT showed a significantly lower rate of comorbidity at T1 (35.9%) than TAU (53.6%). The tCBT condition showed a greater reduction in rates of comorbidity (60.5%) than did TAU (38.0%), consistent with previous tCBT results from efficacy trials. Comorbid diagnosis severity ratings reduced to a significantly greater extent in tCBT than in TAU. Implications for the treatment of "whole persons" as opposed to specific diagnoses will be discussed.

### **A Qualitative Study of Patient Acceptability of Group Transdiagnostic Cognitive-Behaviour Therapy for the Treatment of Anxiety Disorders**

**Pasquale Roberge, Ai-Thuy Huynh & Isabelle Gaboury, Université de Sherbrooke, Canada**

**Martin D. Provencher, Université Laval, Canada**

**Peter J. Norton, Monash University, Australia**

The group tCBT protocol developed by Norton (2012) shows great potential for the dissemination and implementation of evidence-based psychotherapy for anxiety disorders in community-based care. Considering that acceptability of tCBT for patients is a key determinant of successful scaling-up of the intervention, we sought to examine participants' perception of tCBT based on a theoretical framework of acceptability for healthcare interventions (Sekhon et al., 2017). In this presentation, we present results from a descriptive-interpretative qualitative study embedded in a tCBT pragmatic clinical trial. The sample was composed of 17 participants from the experimental group, with the additional eligibility criteria of having completed at least three of the 12 tCBT sessions. Participants were selected from five different tCBT groups across the three sites with a maximum-variation purposive sampling strategy method based on sex, principal anxiety disorder diagnosis (Panic Disorder, Agoraphobia, Social Anxiety Disorder, Generalized Anxiety Disorder), and treatment adherence (9 to 12 sessions; 6 to 8 sessions; 3 to 5 sessions). Individual semi-structured interviews were conducted at the four-month follow-up. The interview guide was based on a meta-definition of the concept of acceptability, and data was examined with a thematic analysis. Patients' perception of acceptability of tCBT was classified into eight themes: 1) transdiagnostic therapy; 2) intervention strategies; 3) group format; 4) group cohesiveness; 5) co-therapists with different expertise; 6) therapeutic alliance; 7) perceived effectiveness; and 8) access to therapy. Overall,

tCBT was appreciated by participants who viewed tCBT as appropriate, practical and effective in the context of a pragmatic trial. The group modality was generally perceived as a positive factor of the intervention, allowing for peer support, breaking isolation and increasing motivation for exposure exercises. Group composition heterogeneity regarding anxiety disorders did not appear associated with therapy's perceived acceptability. However, participants reported challenges in graduated exposure exercises due to the diversity of fears hierarchies within their groups. By giving patients the opportunity to share their perception of their tCBT experience, we developed a better understanding of important characteristics of the delivery of tCBT in the context of community-based care that we could improve for large-scale implementation. Recommendations to enhance tCBT training of therapists will be discussed in light of acceptability data, primarily regarding group cohesion and transdiagnostic group exposure exercises.

### **Symposia 3: Basic Processes/Experimental Psychopathology**

#### **Cognitive Control and Anxiety Vulnerability**

**Convenor: Convenor Julian Basanovic, University of Western Australia, Australia**

**Chair: Julian Basanovic, University of Western Australia, Australia**

**Discussant: Nazanin Derakhshan, Birkbeck University of London, United Kingdom**

#### **Relating Trait Anxiety to Cognitive Flexibility in Young Adults: An Investigation Using Emotional Stimuli**

**Oana Marcus, University of Sibiu, Romania**

**Laura Visu-Petra, Babes Bolyai University, Romania**

**Ben Grafton & Colin MacLeod, University of Western Australia, Australia**

Cognitive theories of anxiety posit that high levels of trait anxiety are associated with executive impairments which are predicted to be more visible when threatening information is processed. So far, studies have revealed the presence of such anxiety-related impairments in terms of inhibition and working memory. However, few studies have looked at the relation between trait anxiety and cognitive flexibility when emotional information is processed. The few existing studies have employed cognitive flexibility tasks that include emotional stimuli, but most of them use a simplified format which lacks ecological validity. In real life, when dealing with complex emotional scenarios, we are not provided with cues telling us what response is relevant at any given moment, we have to infer this information ourselves. Hence, we have to discover the appropriate rules and apply them as needed. In order to overcome the limitations of previous studies, we developed a novel cognitive flexibility task to capture the dynamic, fluctuating and contextually-specific behaviours that people deploy when they need to swiftly navigate the emotional challenges of daily life. The current study investigated the presence of the predicted cognitive flexibility impairment in high compared to their low trait anxious counterparts using a newly developed Affective Flexibility Assessment Task. During this task, participants were presented on each trial with pairs of faces and were then required to decide if the two faces match (e.g., gender or emotion) or not. Participants had to alternate between these different rules and they had to discover by themselves the new relevant rule on each given trial. The task included a manipulation which allowed us to investigate two types of flexibility: trial level switching (when both faces changed from one trial to the next) and stimulus level switching (when one face was kept onscreen from one trial to the other). Our findings yield the expected effects in terms of cognitive flexibility task performance: participants took longer to complete switching trials compared to repetition trials. However, at odds with our predictions, the analysis of participants' reaction times revealed the lack of significant differences in cognitive flexibility performance between the high trait anxiety group and the low trait anxiety group. Interestingly, the two groups did differ in self-reported cognitive flexibility with the high trait anxiety group reporting significantly lower levels of cognitive flexibility compared to the low trait anxiety group. Although variation in self-reported cognitive flexibility was related to variation in anxiety, it was not related to variation in the performance based measure of cognitive flexibility. Our results seem to indicate that high trait anxiety is associated with meta-cognitive beliefs that cognitive flexibility is impaired, without compromising cognitive flexibility per se, at least not as elicited by this cognitive flexibility task. These findings further highlight the need for research into the relationship between trait anxiety and cognitive flexibility when emotional information is being processed, taking into account possible dissociations between self-reported and performance based indicators of flexibility.

#### **Rapidly Formed Attentional Biases to Threat-Associated Visual Features: The Roles of Anxiety and Top-Down Control**

**Nick Berggren, Birkbeck University of London, United Kingdom**

Information denoting threat strongly competes for our visual attention, and this is particularly so for individuals reporting high levels of trait anxious personality. What is less clear however is what the consequences of threat processing are: how do we adapt our responses after detecting danger in our environment? Here, I propose that attending to a threat signal rapidly biases subsequent attention towards any information related to that signal, even if associated information is in and of itself not threatening. In Experiment 1, participants viewed task-irrelevant face cues showing neutral, happy, or angry expressions. These faces were filtered to appear in different colors (e.g., blue). On each trial, following exposure to a face cue, participants searched an array of objects to locate a target shape, while ignoring other irrelevant objects. Irrelevant objects were either composed of random colors, or one could match the color of the prior face cue. Results showed that RTs were delayed when the color of a preceding angry face appeared as a distractor in search displays, with no effect following neutral/happy cues. This effect was confined to individuals reporting high levels of trait anxiety. In Experiment 2, face cues were made task-relevant, with participants asked to memorize their identities. This eliminated the role of anxiety, with both low and high anxious participants now showing a bias towards angry face colors within search displays but not neutral face colors. These results establish that, after a single exposure, rapid heightened selectivity can occur towards visual features that have been associated with a perceived threat. This demonstrates an adaptive role of top-down attentional control following attentional allocation to threat to facilitate further threat detection.

#### **Anxious Attention: The Relative Effects of State and Trait Anxiety on Inhibitory Attentional Control Using the Anti-Saccade Task**

**Owen Myles & Ben Grafton, University of Western Australia, Australia**

**Patrick Clarke, Curtin University, Australia**

**Colin MacLeod, University of Western Australia, Australia**

The relationship between increased anxiety and impaired inhibitory attentional control has been well established. However, most of this research has been based upon studies examining trait anxiety, and state anxiety may be a confounding variable in this research. This study sought to determine which account of the relationship between anxiety and impaired inhibitory attentional control best explains this

relationship; state anxiety, trait anxiety or an interaction between both state and trait anxiety. Seventy-eight participants completed an anti-saccade task, interspersed with a video mood manipulation in order to experimentally manipulate state anxiety and determine its effects of inhibitory attentional control. We found an interaction effect between trait and state anxiety condition on the anti-saccade task. This result suggests that impairments in inhibitory attentional control are greatest when high-trait anxious participants are in an elevated anxious mood state. This may be due to a strengthening of the bottom-up attentional system during elevated state anxiety combined with a weakening in the top-down attentional system in those with elevated trait anxiety. Methodologically, this finding reflects the importance of measuring state anxiety during cognitive tasks. Theoretically, this may allow for further refinement of Attentional Control Theory, adding further specificity about when inhibitory attentional control deficits are induced by anxiety.

### **Spatial Working Memory and Recovery from Stress: Is Poor Working Memory Under Stress Linked to Anxiety Perseveration?**

**Georgina Mann, Lies Notebaert & Colin MacLeod, University of Western Australia, Australia**

Trait anxiety is a stable disposition, reflecting an individual's tendency to experience anxious symptoms. Anxiety perseveration is a component of this, reflecting the tendency to experience ongoing symptoms of anxiety following an anxious event. Research has indicated that anxiety perseveration makes a unique contribution to trait anxiety independent to the contribution made by anticipatory anxiety (the tendency to experience elevated anxiety in response to an anticipated stressful event).

Cognitive theories propose that elevated trait anxiety is associated with poor working memory performance, but whether poor working memory contributes to individual differences in anxiety perseveration remains unknown. Thus, this investigation aims to determine whether anxiety-linked spatial working memory decline is associated with individual differences in anxiety perseveration following a speech performance stressor.

Participants (N = 97) completed a counterbalanced, two-session experiment. One part involved a spatial working memory task, requiring participants to recall the spatial location of a series of coloured circles. In the other part participants were required to prepare and give a short speech that they believed would be judged by their peers if they performed poorly. State anxiety was assessed to measure anticipatory anxiety and anxiety perseveration. These two parts occurred between 6-8 days apart and order was counterbalanced. Participants demonstrated variability in their working memory performance as well as in anticipatory anxiety and anxiety perseveration. As intended, delivery of the speech resulted in elevated state anxiety across participants allowing for the measurement of anticipatory anxiety and anxiety perseveration. Most importantly, individual differences in anxiety perseveration, but not anticipatory anxiety, were associated with spatial working memory performance. Those who performed more poorly on the working memory task demonstrated heightened anxiety perseveration following a speech stressor.

The present results indicate that poor working memory performance is uniquely associated with anxiety perseveration and not anticipatory anxiety. These findings contribute to theories concerning the relationship between working memory performance and anxiety vulnerability, and highlight the importance for future research to consider the unique facets of anxiety symptomatology when investigating the association between cognitive processing and anxiety vulnerability. In addition, these findings may help explain the mixed results in previous research in this area and indicate that future research should consider therapeutic benefits gained from the inclusion of working memory training in conventional therapy protocol to target the specific mechanisms underlying anxiety vulnerability.

### **Perfectionism as a Transdiagnostic Process – New Evidence from Experimental and Longitudinal Studies**

**Convenor: Convenor Barbara Cludius, Ludwig-Maximilians University, Germany**

**Chair: Sarah Egan, Curtin University, Australia**

#### **Self-Critical Perfectionism as a Moderator of the Relation Between Mindfulness and Depressive and Anxious Symptoms over Two Years**

**David Dunkley & Ryan Tobin, Lady Davis Institute - Jewish General Hospital and McGill University, Canada**

Over the past three decades, perfectionism has received increasing theoretical and empirical attention as a cognitive-personality factor that increases vulnerability to a wide range of psychological problems, including depression and anxiety (see Egan et al., 2011; Smith et al., 2016, 2018). There has also been a rapidly growing interest in mindfulness-based interventions. However, little research has examined for whom the effects of mindfulness on depressive and anxious symptoms are likely to be more beneficial. This study of 124 community adults examined self-critical (SC) perfectionism as a moderator of the relation between mindfulness and depressive and anxious symptoms over two years. At baseline (Time 1), participants completed measures of SC and personal standards (PS) higher-order dimensions of perfectionism (e.g., Dunkley et al., 2003), which are derived from different conceptualizations (Blatt et al., 1976; Frost et al., 1990; Hewitt & Flett, 1991; Slaney et al., 2001). Participants completed the Five Facet Mindfulness Questionnaire (Baer et al., 2006) one year later (Time 2), and depressive and anxious symptom measures (Watson et al., 1995) at Time 1, Time 2, and two years after baseline (Time 3). In contrast to PS, SC perfectionism was moderately to strongly associated with lower levels of total mindfulness and specific mindfulness facets (i.e., nonreactivity to inner experience, acting with awareness, describing with words, nonjudging of inner experience). Hierarchical multiple regression analyses of moderator effects demonstrated that, for individuals with higher SC perfectionism, total mindfulness predicted decreases in depressive and anxious symptoms over two years, adjusting for the effects of Time 1 and Time 2 depressive and anxious symptom scores. SC perfectionism also interacted with nonreactivity to inner experience, observing sensations/perceptions/thoughts/feelings, describing with words, and nonjudging of inner experience, respectively, to predict lower depressive and anxious symptoms at Time 3. Mindfulness did not predict Time 3 depressive and anxious symptoms for individuals with lower SC perfectionism. These findings highlight the potential importance of mindfulness-based interventions to reduce vulnerability to depressive and anxious symptoms over time for SC perfectionistic individuals.

#### **Why Does Perfectionism Confer Risk for Depression? A Longitudinal Test of the Mediating Role of Social Disconnection and Stress**

**Martin M. Smith, York St. Johns University, United Kingdom**

**Vanja Vidovic, University of Waterloo, Canada**

**Simon Sherry, Dalhousie University, Canada**

**Donald Saklofske, University of Western Ontario, Canada**

Perfectionistic concerns and perfectionistic strivings are putative risk factors for depression. But, why do perfectionistic concerns and perfectionistic strivings place people at risk depressive symptoms? According to the perfectionism social disconnection model (PSDM),

perfectionistic concerns and perfectionistic strivings confer risk for depressive symptoms by engendering feelings of being disliked by, rejected by, and misunderstood by other people (i.e., social disconnection). Alternatively, the stress generation model posits that people with high perfectionistic concerns and high perfectionistic strivings think, feel, and behave in ways that generate stress, which in turn confers risk for depressive symptoms. However, despite three decades of sustained research, the extent to which perfectionistic concerns and perfectionistic strivings uniquely and collectively confer risk for depressive symptoms is unclear and contentiously debated. Likewise, notable between-study inconsistencies in findings, underpowered studies, and an overreliance on cross-sectional designs have obscured understanding of the role of social disconnection and stress in the perfectionistic concerns-depressive symptom link and the perfectionistic strivings-depressive symptoms link. Objective: We addressed these important limitations by conducting the first theory-driven meta-analytic test of the PSDM and stress generation model of perfectionism. We also evaluated the extent to which perfectionistic concerns and perfectionistic strivings predict increased depressive symptoms, beyond baseline depressive symptoms. Method: Our literature search yielded 16 longitudinal studies (N = 5,169) composed of community adults, university students, medical students, and psychiatric patients. Results: Two-step meta-analytic structural equation modeling (TS-MASEM) using random effects models revealed that perfectionistic concerns and perfectionistic strivings both predict increased depressive symptoms over time. Additionally, congruent with the PSDM and the stress generation model, perfectionistic concerns indirectly predicted increased depressive symptoms via social disconnection (standardized indirect effect = .05 [95% CI; .02, .09]) and stress (standardized indirect effect = .03, 95% CI [.01, .05]). In contrast, perfectionistic strivings indirectly predicted increased depressive symptoms via social disconnection (standardized indirect effect = .03 [95% CI; .01, .06], but not stress. Conclusions: Results lend credence and coherence to theoretical accounts suggesting social disconnection and stress are fundamental to understanding why perfectionistic concerns place people at risk for depressive symptoms. Moreover, contrary to some scholars' claims, findings imply that perfectionistic strivings' depressing consequences stem from social disconnection. Clinicians who seek to understand, assess, or treat distressed perfectionists are encouraged to focus on both the characterological and interpersonal contexts in which perfectionists get depressed. Perfectionistic strivings positive relationships with social disconnection and follow-up depressive symptoms (controlling for baseline perfectionistic concerns and baseline depressive symptoms) also draws into question the notion that such strivings are healthy or adaptive.

### **Perfectionism as a Risk Factor for Symptoms of Eating Disorders and Obsessive-Compulsive Disorder: Findings from an Experimental Study**

**Karina Limburg, Ludwig-Maximilians University, Germany**

Whilst there is broad evidence that perfectionism is present across disorders, it is understudied how perfectionism leads to a certain type of psychopathology in one individual whereas another individual may develop different symptoms. Examining potential moderating variables that shape the path from perfectionism to a specific type of pathology may help to shed light on this issue. For eating disorders, it has been suggested that body dissatisfaction may be a moderator that leads from perfectionism to the development of eating disorder symptoms. By contrast, a moderator of the relationship between perfectionism and symptoms of obsessive-compulsive disorder (OCD) has been proposed to be increased responsibility for negative events. The current study aimed to gain an understanding of the interaction of perfectionism and the two proposed moderators in the development of eating disorder vs. OCD symptoms. We used an experimental design. After a baseline assessment of perfectionism, participants were randomly allocated to two experimental groups and a control group. The groups received an induction of body dissatisfaction, responsibility, or a sham induction, respectively. The influence of these moderators on subsequent symptoms of eating disorders and symptoms of OCD in interaction with perfectionism was examined. In this regard, it was tested whether the respective psychopathology symptoms developed over a relatively short period of time of 24 hours after the induction. Results were compared to the control group which did not receive a moderator induction. It was hypothesised that individuals high on perfectionism would develop eating disorder symptoms after the induction of body dissatisfaction and OCD symptoms after the induction of responsibility. Pilot data from this experimental study will be presented at the conference. Findings on moderators of the association between perfectionism and psychopathology are relevant for prevention and treatment of specific symptoms in individuals high on perfectionism. Specifically, the moderators could be therapeutic targets next to perfectionism in individuals who present with eating disorder or OCD symptomatology. Further, non-clinical individuals who present with perfectionism and one of the moderators could be identified as individuals at risk for developing the specific psychopathology and be treated accordingly.

### **Moving Beyond Questionnaire Assessment of Perfectionism? Direct and Indirect Assessment in Patients with Depression and Obsessive-Compulsive Disorder**

**Barbara Cludius, Ludwig-Maximilians University, Germany**

**Sarah Landmann & Anne-Katrin Külz, Clinic of Psychiatry and Psychotherapy, University of Freiburg, Germany**

**Keisuke Takano, Ludwig-Maximilians University, Germany**

**Steffen Moritz & Lena Jelinek, University Medical Center Hamburg-Eppendorf, Germany**

According to transdiagnostic perspectives on psychopathology, similar behavioral, emotional, and cognitive processes are involved in the development and maintenance of several psychiatric disorders (Harvey, Watkins, Mansell, & Shafran, 2004). Even though major depressive disorder (MDD) and obsessive-compulsive disorder (OCD) are distinct disorders, it is assumed that they show an overlap in cognitive biases. Perfectionism is such a cognitive bias (Beck & Alford, 2009; Obsessive Compulsive Cognitions Working Group, 1997) and can be divided in the achievement-striving and evaluative-concerns dimension. In empirical studies using self-report measures the two dimensions of perfectionism have been found to be associated with both disorders (Limburg, Watson, Hagger, & Egan, 2017). However, according to dual-process models of cognition it is assumed that self-report measures cannot measure all relevant aspects of perfectionism. Dual-process models of cognition propose two modes of information processing (Evans, 2008): an associative system, which is thought to operate unintentionally or automatically and a reflective system, which is assumed to require cognitive effort and can influence automatic information processing in the association system. It is hypothesized that depressive symptoms develop due to a negatively biased self-referent associative system and an attenuated reflective system (Beevers, 2005) and similar processes could apply for OCD (Clark, 2002). Cognitive biases, such as perfectionism are thought to be especially evident in the associative system. Therefore, it is important to complement self-report measures by indirect measures, which aim to assess processes in the associative system. The aim of this study was to test whether perfectionism differs between patients (MDD and OCD) and healthy controls in the associative and the reflective system. We used an established perfectionism single category implicit association task (SC-IAT; De Cuyper, Pieters, Claes, Vandromme, & Hermans, 2013) as an indirect measure as well as a self-report measure of perfectionism (Frost Multidimensional Perfectionism Scale) in patients with MDD (n = 55), OCD (n = 55), and in healthy controls (n = 65). In replication of previous findings, patients with MDD and OCD showed higher perfectionism scores compared to healthy controls on the self-report measure. When evaluating the role of the two dimensions of perfectionism, the evaluative concern dimension of the FMPS, but not the achievement-striving dimension remained a unique significant

predictor of depressive and OCD symptoms, even after controlling for diagnostic status (MDD; OCD; healthy). Contrary to our expectations, the indirect measure (SC-IAT) did not discriminate group. Therefore, neither in the associative nor the reflective system, the achievement-striving dimension seems to be a maintaining process for MDD and OCD. Future studies should incorporate indirect measures assessing both the achievement striving and evaluative concerns dimension and should include patients with other symptoms, for example, eating disorder. To test whether perfectionism may serve as a transdiagnostic risk or maintaining factor, especially longitudinal and experimental studies are needed.

#### **One Factor or Two? A Bi-Factor Analysis of the Frost Multidimensional Scale and Clinical Perfectionism Questionnaire**

**Joel Howell, Peter McEvoy, Rebecca Anderson & Sarah Egan, Curtin University, Australia**

The measurement of perfectionism has long been debated within the literature, though there has been recent consensus that perfectionism consists of two higher order factors, perfectionistic concerns and perfectionistic strivings. Though perfectionistic concerns is universally accepted to be associated with negative outcomes, the evidence for perfectionistic strivings is mixed. More concerning is the high degree of overlap and common variance between perfectionistic concerns and strivings. The present study aimed to address this through bifactor modeling of two measures of perfectionism, the Frost Multidimensional Perfectionism Scale and the Clinical Perfectionism Scale in a general sample ( $n = 397$ ). Using M-Plus 8.0 a one-factor, two-factor, and bi-factor model of perfectionism was evaluated. Findings provided greater support for the bifactor model, relative to the two-factor or one-factor model across both Frost Multidimensional Perfectionism Scale and the Clinical Perfectionism Scale. Results suggest the bifactor model best represents the structure of perfectionism and suggest we cannot rule out the use of a general factor score for assessing perfectionism.

#### **Psychological Mechanisms Involved in the Recurrence and Chronicity of Depression and Anxiety Disorders: Results from the Netherlands Study on Depression and Anxiety (NESDA)**

**Convenor: Peter de Jong, University of Groningen, the Netherlands**

**Chair: Peter de Jong, University of Groningen, the Netherlands**

**Discussant: Ernst Koster, Ghent University, Belgium**

#### **Implicit and Explicit Self-Esteem in the Recurrence of Depression and Anxiety Disorders**

**Lonneke van Tuijl, University Medical Center Groningen, the Netherlands**

**Elise Bennik, University of Groningen, the Netherlands**

**Philip Spinhoven, Leiden University, the Netherlands**

**Brenda Penninx, VU Medical Center Amsterdam, the Netherlands**

**Peter de Jong, University of Groningen, the Netherlands**

A negative self-view is a prominent factor in most cognitive vulnerability models of depression and anxiety. In the last two decades, there has been increased attention to differentiate between the implicit (i.e., relatively subconscious) and the explicit (i.e., at a more conscious level) processing of self-related evaluations. In turn, implicit and explicit self-esteem are theorised to play unique roles in the aetiology of depression and anxiety. Previous studies have mostly focused on cross-sectional associations between (implicit & explicit) self-esteem and symptoms, with relatively few studies looking at the longitudinal associations. In the present study, we used data from NESDA where 1799 participants completed a self-report questionnaire of self-esteem (i.e., explicit self-esteem) and the self-esteem Implicit Association Test (i.e., implicit self-esteem). Using these data, we were able to test the longitudinal association between self-esteem and symptoms of depression and anxiety. Furthermore, given that those who had recovered from a depression or an anxiety disorder still reported low levels of self-esteem at the cross-sectional level, we tested whether residual self-esteem following an episode of depression or anxiety represented a “scar” increasing the risk for recurrence during a three-year follow-up. Following a presentation of the findings, the potential that low self-esteem is a transdiagnostic factor both increasing risk for increases of depression and anxiety symptoms, and increasing risk for recurrence of a depression or anxiety disorder following recovery, will be discussed.

#### **Does Repetitive Negative Thinking Mediate Prospective Relationships Among Depression and Anxiety?**

**Philip Spinhoven, Universiteit Leiden, the Netherlands**

**Lonneke van Tuijl, Universiteit Groningen, the Netherlands**

**Sascha Struijs, Universiteit Leiden, the Netherlands**

**Hermien Elgersma, Universiteit Groningen, the Netherlands**

**Ernst Koster, University of Ghent, Belgium**

Comorbidity among anxiety and depression disorders and their symptoms is high. Rumination and worry have been found to mediate prospective cross-disorder relations between anxiety and depression disorders and their symptoms in adolescents and adults. We examined whether generic repetitive negative thinking (RNT), that is content- and disorder-independent, also mediates prospective cross-disorder associations between anxiety and depression disorders and their symptoms. This was studied using a 5-year prospective cohort study. In a mixed sample of 1,859 adults (persons with a prior history of or a current affective disorder and healthy individuals), we assessed DSM-IV affective disorders (Composite Interview Diagnostic Instrument), anxiety (Beck Anxiety Inventory) and depression symptoms (Inventory of Depressive Symptomatology) and RNT (Perseverative Thinking Questionnaire). We found that baseline depression disorders and symptom severity have predictive value for anxiety disorders and symptom severity five years later (and vice versa) and that these associations were significantly mediated by level of RNT as assessed two years after baseline. The significant and rather large mediation effects seemed mainly due to the mental capacity captured by RNT, especially in the prospective relation of anxiety with future depression.



### **Predictive Value of Attentional Bias for Recurrence of Depression: A 4-Year Prospective Study**

**Hermien Elgersma, University of Groningen, the Netherlands**

**Ernst Koster, University of Ghent, Belgium**

**Jorien Vugteveen & Albert Hoekzema, Rijksuniversiteit Groningen, the Netherlands**

**Brenda Penninx, VU University Medical Centre Amsterdam, the Netherlands**

**Claudi Bockting, Academic Medical Center, University of Amsterdam, the Netherlands**

**Peter de Jong, Rijksuniversiteit Groningen, the Netherlands**

Previous research showed that individuals who were remitted from a depressive disorder displayed heightened attention towards negative adjectives (e.g., worthless). We tested if this attentional bias (AB) is predictive of future recurrence of depressive episodes and/or having depressive symptoms at 2- and 4-year follow-up. We used a longitudinal approach within the Netherlands Study of Depression and Anxiety (NESDA) and selected participants who were remitted from Major Depressive Disorder (MDD) ( $n=918$ ). AB was measured with a verbal Exogenous Cueing Task; using 2 presentation times (500 and 1250 ms) and 3 stimulus types (negative, positive, neutral). Over 4 years, we prospectively assessed recurrence of depressive episodes and depressive symptomatology after participants completed the ECT. Diagnosis of depressive disorder was measured with clinical rating-scales and self-report questionnaires. A heightened probability of recurrence was neither associated with (heightened) AB for negative nor with (lowered) AB for positive adjectives. Thus, the findings do not support the view that an AB toward negative stimuli or away from positive stimuli plays a critical role in the recurrence of depression.

### **Temporal Stability of Symptoms of Affective Disorders, Cognitive Vulnerability and Personality Over Time**

**Sacha Struijs, Leiden University, the Netherlands**

**Femke Lamers, Vrije universiteit Amsterdam, the Netherlands**

**Mathilde Verdam, Leiden university, the Netherlands**

**Wouter van Ballegooyen, Vrije universiteit Amsterdam, the Netherlands**

**Philip Spinhoven & Willem van der Does, Leiden university, the Netherlands**

**Brenda Penninx, Vrije universiteit Amsterdam, the Netherlands**

Background: Signs and symptoms of psychopathology can be chronic but are generally regarded as less stable over time than markers of cognitive vulnerability and personality. Some findings suggest that these differences in temporal stability are modest in size but a rigorous examination across concepts is lacking. The current study investigated the temporal stability of affective symptoms, cognitive vulnerability markers and personality traits at various assessments over nine years.

Methods: Participants of the Netherlands Study of Depression and Anxiety were assessed at baseline and reassessed after 2, 4, 6 and 9 years. They were grouped on the basis of waves of CIDI-diagnoses into stable healthy ( $n=768$ ), stable diagnosis ( $n=352$ ) and unstable ( $n=821$ ). We determined temporal stability by calculating intraclass correlation coefficients (ICC) and consistency indices of latent state-trait analyses (LST).

Results: Temporal stability was moderate to high for symptoms (range ICC's .54-.73; range consistency .64-.74), cognitive vulnerability (range ICC's .53-.76; range consistency .60-.74) and personality (range ICC's .57-.80; range consistency .60-.75). Consistency indices for all measures were on average a bit lower in the unstable group (ICC = .54) compared to the stable groups (ICC = .61). Overall stability was similarly high after 2, 4, 6 and 9 years.

Conclusion: The stability of symptoms of affective disorders and indices of cognitive vulnerability and personality over time is similar and relatively high. For many people, the symptoms of affective disorders are relatively stable.

### **Recent Goal Regulation Processes Implicated in Mental Health**

**Convenor: Joanne Dickson, Edith Cowan University, Australia**

**Chair: Joanne Dickson, Edith Cowan University, Australia**

#### **Rumination Mediates the Relationship Between Actual-Ideal (but Not Actual-Ought) Self-Discrepancy and Psychological Distress**

**Joanne Dickson, Edith Cowan University, Australia**

**Nicholas Moberly, University of Exeter, United Kingdom**

**Christopher Huntley, University of Liverpool, United Kingdom**

Actual-ideal and actual-ought self-discrepancies have been theorised to be independently associated with depressive and anxious symptoms respectively. We tested this prediction and extended it to consider whether rumination mediates these relationships. One hundred and thirty-eight students (48 males, 90 females) listed four adjectives describing how they would ideally hope to be and four adjectives describing how they ought to be. Participants then rated how distant they perceived themselves to be from each of their ideal and ought selves, as well as the importance of each ideal and ought self. Finally, participants self-reported levels of negative rumination, anxious and depressive symptoms. Results showed that actual-ideal self-discrepancy was independently associated with both anxious and depressive symptoms, whereas actual-ought self-discrepancy was independently associated with anxious symptoms only. Rumination mediated the independent relationships between actual-ideal self-discrepancy and anxious and depressive symptoms. In contrast, actual-ought self-discrepancy retained an independent association with anxious symptoms that was not mediated via rumination. Anxious and depressive symptoms demonstrate shared associations with actual-ideal self-discrepancies, whereas anxious symptoms are uniquely associated with actual-ought self-discrepancies, contrary to self-discrepancy theory. The study reveals further evidence for rumination as a cognitive-motivational transdiagnostic process linking self-regulatory difficulties with psychological distress.

#### **Goal-Related Thinking and Affective Responsiveness in Dysphoria**

**Andrew MacLeod, Royal Holloway, University of London, United Kingdom**

One distinction in goals-based thinking is between outcome thinking (envisioning a goal being achieved) and process thinking (imagining the steps needed to get to the end point). Data will be presented to show that each has affective consequences – positive affect in the case of outcome thinking and negative affect from process thinking. The balance between these two types of affect is likely to determine whether goal-directed behaviour is initiated or not. The talk will also present data showing how elevated depression might be related to a deficit in positive affect arising from outcome thinking and/or an excess of negative affect as a result of process thinking. Delineating the affective

imbalance should help in understanding the phenomenon whereby persons who are depressed are able to identify personally meaningful goals but do not take steps towards them, and could inform therapeutic efforts aimed at helping people to move towards their personal goals.

### **Intensity and Perceived Constructiveness of Rumination About Personal Goals: A Diary Study**

**Nicholas Moberly, University of Exeter, United Kingdom**

Rumination is often instigated by unresolved goals, and people's motives for these goals may be influential in the intensity with which they ruminate. This diary study tested whether introjected motives for goal pursuit (striving to avoid feeling ashamed, guilty or anxious) predict unique variance in rumination about goals after accounting for possible confounding variables. We also investigated the extent to which rumination about goals pursued for different motives is perceived to be constructive. Forty-eight undergraduate participants reported six important personal goals and rated them on several motives and dimensions. Over the next ten days, participants reported daily on the intensity of rumination about these goals, the perceived constructiveness of this rumination and their goal progress. At the within-person level, introjected motives and conflict were uniquely associated with higher levels of goal rumination. People were more likely to perceive that rumination about goals pursued for introjected motives was constructive, even though these motives did not predict progress. This provides further support for an organismic integration account of rumination, and suggests that rumination about goals pursued for introjected motives may be explained by its perceived (and possibly illusory) benefits.

### **Investigating Health Beliefs, Goal Appraisals and Emotional Distress in Individuals Experiencing Severe Mental Health Difficulties**

**Esmira Ropaj, University of Liverpool, United Kingdom**

**Joanne Dickson, Edith Cowan University, Australia**

**Andrew Jones & Catrin Eames, University of Liverpool, United Kingdom**

**Zabina Gill, Pennine Care NHS Foundation Trust, United Kingdom**

**Peter Taylor, University of Manchester, United Kingdom**

Evidence suggests that emotional distress including depression and anxiety is commonly reported amongst individuals experiencing psychosis. The personal beliefs an individual develops about the meaning and consequence of psychosis has been put forward as one explanation to account for the emotional distress experienced. While negative beliefs may broadly increase the likelihood of distress, it is plausible that psychosis would have the biggest impact where it affects the goals that matter most to individuals. To explore the role of beliefs and goals, we first ran a meta-analysis which aimed to review the association between beliefs about psychosis experiences and emotional distress. Three electronic databases (PsycINFO, Medline and CINAHL) were searched using keywords and controlled vocabulary (e.g., MeSH terms) from date of inception to April 2018. Utilising a cross sectional design we then investigated beliefs about mental health experiences, goal appraisals and distress in 75 individuals with severe mental health difficulties (e.g., schizophrenia) who were receiving support from a rehabilitation service. Our random-effects meta-analysis revealed that depression and anxiety held moderate to strong association with psychosis beliefs, with perceptions concerning a lack of control over experiences having the strongest association with distress. In line with the findings of the meta-analysis our cross sectional study revealed that beliefs significantly contributed to variance in distress, however goals were not found to account for any of the variance. Results will be discussed in relation to the existing literature.

### **Attention and Learning Mechanisms in Child Anxiety**

**Convenor: Helen Dodd, University of Reading, United Kingdom**

**Chair: Helen Dodd, University of Reading, United Kingdom**

### **Emerging Patterns of Mother-Infant Relations: Maternal Anxiety, Infant Temperament, and Infant Attention Bias to Emotion**

**Koraly Perez-Edgar & Leigha MacNeill, The Pennsylvania State University, USA**

**Jessica Burris, Rutgers University, USA**

**Kelley Gunther & Kristin Buss, The Pennsylvania State University, USA**

**Vanessa LoBue, Rutgers University, USA**

Early individual differences in attention may shape socioemotional trajectories. Children use attention to selectively process the environment and regulate their emotions, especially in situations that evoke negative affect (Pérez-Edgar & Hastings, 2018). Individual differences in infants' attention patterns may be in part due to proximal environmental influences, such as early experiences in the family (Pollak, 2003). Maternal anxiety (Morales et al., 2017) and attention allocation to emotions (Aktar et al., 2014) may serve as a model of emotional responding for children. Infant temperament is also likely to predict children's attention allocation to emotions, as young children's negative affectivity has been associated with greater attention bias to threat (Cole et al., 2016). Little research, however, has tested how these components emerge over the first months of life.

Participants are part of an ongoing longitudinal study of attention processes in the first two years of life. Current analyses focus on age 4-mos due to sample size, although we have an emerging sample at age 8-mos. Mothers completed the Beck Anxiety Inventory (BAI; Beck et al., 1988) to measure trait anxiety. Mothers reported temperamental negative affect with the Infant Behavior Questionnaire—Revised (IBQ; Gartstein & Rothbart, 2003). Mothers and infants also completed an eye-tracking version of the dot-probe task (Pérez-Edgar et al., 2017), with angry-neutral, happy-neutral, and neutral-neutral trials. We assessed attention allocation to happy and angry faces via net dwell time, creating a proportion score to emotional versus neutral faces in order to standardize measures for comparison.

We noted a significant effect of face-affect, such that all infants spent proportionately more time attending to angry (51.9%) vs. happy faces (45.9%),  $F(1,66)=5.10$ ,  $p=0.03$ . When accounting for maternal anxiety, the emerging face by BAI interaction suggests that infants of mothers low in anxiety show less differential attention (angry vs. happy; 52.4% vs. 49.3%) than infants with more anxious mothers (54.9% vs. 40.4%),  $F(1,54)=2.89$ ,  $p=0.09$ , paired- $t$ 's of  $p=0.78$  and  $p=0.07$ , respectively. While at 4 mos there was no relation between attention to angry and happy faces,  $r(67)=0.02$ ,  $p=0.86$ , more stability emerged at 8 mos,  $r(59)=0.31$ ,  $p=0.02$ . Finally, for infants low in negative affect, proportion of time attending to happy faces increased and angry faces decreased over time, while high negative affect infants were flat across time,  $p=0.03$ . With increases in sample we will examine patterns of attention across time in infants in relation to temperament, anxiety, and attention to emotion in mothers, again across time. In particular, an autoregressive cross-lagged model will account for the nonindependence between mothers and children. This model will assess the stability of actor effects (e.g., effect of mother's 4-mo eye-tracking on her 8-mo eye-tracking) and reciprocity of partner effects (e.g., effect of mother's 4-mo eye-tracking on her infant's 8-mo eye-tracking; Kenny, Kashy,

& Cook, 2006), accounting for maternal anxiety. In this way, we will be able to examine inter-family differences in intra-family change in attention to emotions.

### **Learning to Attend to Threat, a Parent-Child Experimental Task**

**Helen Dodd, University of Reading, United Kingdom**

**Holly Rayson, Institut des Sciences Cognitives-Marc Jeannerod, CNRS and Université Claude Bernard Lyon, France**

**Zoe Ryan & Aleksandra Lowicka, University of Reading, United Kingdom**

It is not possible for us to process everything we see, so we use attention to select certain information for further processing. What children pay attention to may have striking consequences for their subjective experience, which shapes their emotional responses and expectations of the world. Cognitive theories propose that individual differences in attentional biases play a vital role in the development of anxiety disorders, with individuals who exhibit biased attention to threat-related stimuli more vulnerable for anxiety than those who do not (Beck, 1976; Lonigan et al., 2004; Mathews & McLeod, 2004).

Despite the plethora of research that has examined the association between attention bias and anxiety in adult and child samples (e.g. Bar-Haim et al., 2007) and the energy invested in attention bias modification procedures, only limited research has considered environmental influences on attention biases. In the present research we examined whether parents might affect their child's attention bias by drawing their child's attention to threat. This is important for interventions, which could include a focus on parent behaviours.

Three 'busy scenes' were created for the study in collaboration with a children's artist. The scenes were of a school, a park and an indoor play centre. They were designed to be appropriate for young children and all contained eight threat elements.

Data has been collected so far with 78 preschool-aged children (3 - 4 years old) together with one of their parents. A free-viewing eyetracking task was used. Parents and children viewed the school and park scenes individually at the start of the experiment. Next, parents were asked to discuss the two scenes with their child, intentionally pointing out the threatening elements (Threat condition) or intentionally avoiding pointing out the threatening elements (No Threat condition). Participants were randomly allocated to condition. After the parent-child discussion of the scenes, children viewed the two scenes again along with the indoor play centre scene whilst their gaze was recorded. The play centre scene was included at this stage to explore whether any changes in attention generalised to new scenes.

At this stage, analyses focused on between group differences in orienting and maintained attention to the threat components of the scenes. The previously presented and discussed scenes were analysed separately to the newly presented scene. The preliminary results showed that, relative to participants in the no threat condition, participants in the threat condition showed an orienting bias to threat following the discussion with their parent,  $t(74) = -2.35$ ,  $p = .02$ . This bias was only apparent on the discussed scenes and did not appear to generalise to the new scene,  $t(72) = .82$ ,  $p = .42$ . No between group differences in maintained attention were found on the discussed,  $t(76) = .71$ ,  $p = .71$ , or new scenes,  $t(76) = -1.04$ ,  $p = .30$ .

The results suggest that children may learn to orient their attention to threat in contexts where their parent has previously pointed out threat but that this may not lead to increased orienting to threat across contexts.

### **Does Maternal Anxiety Moderate the Effects of Cognitive and Learning Mechanisms on Anxiety Symptoms in Offspring?**

**Allison Waters, Griffith University, Australia**

**Background:** Increased attention to threat, biases in threat appraisals, and increased fear conditioning as well as impaired fear extinction may contribute to anxiety vulnerability. These cognitive and learning mechanisms have been assessed in the laboratory using a range of experimental tasks. Although numerous studies have separately examined the role of these underlying mechanisms in offspring of anxious parents, very few have examined combinations of mechanisms in offspring of anxious parents and whether they predict increasing anxiety symptoms over time. The purpose of this study was to address this gap by examining cognitive and learning mechanisms in predicting anxiety symptoms over time and whether maternal trait anxiety influenced these associations.

**Methods:** At age 9-12 years of age, healthy children ( $N = 58$ ) completed tasks in which attention to threat, threat appraisals of coping, and fear conditioning and extinction were assessed. Maternal self-report trait anxiety was also assessed and children reported on their anxiety symptoms. At 12-month follow-up, youth anxiety symptoms were reassessed and it was examined whether maternal trait anxiety moderated the effects of cognitive and learning mechanisms on child anxiety symptoms 12 months later, controlling for initial anxiety symptoms, age and gender.

**Results:** A main effect of threat appraisal of coping on children's anxiety symptoms 12-months later was observed as well as an interaction of maternal anxiety and children's fear conditioning on children's anxiety symptoms 12-months later. No significant effects involving threat attention biases were found. Regardless of maternal anxiety, underestimations of coping were linked to increased child anxiety symptoms 12-months later, and in children of mothers with high levels of trait anxiety, larger fear conditioned skin conductance responses predicted more child anxiety symptoms 12-months later.

**Conclusions:** Offspring of mothers with high levels of anxiety are more likely to acquire conditioned fears and develop increased anxiety symptoms over time. Moreover, regardless of maternal anxiety, the tendency to underestimate coping ability predicts child anxiety symptoms over time. Assessment of multiple cognitive and learning mechanisms along with risk factors such as maternal anxiety may aid in identifying children at greatest risk for anxiety. Furthermore, reducing conditioned fear reactivity and threat appraisals could be potential targets for prevention. Results highlight the utility of multimethod approaches for advancing understanding of anxiety risk.

### **Behavioral and Neural Differences Among Anxious and Non-anxious Youth in Fear Learning and their Role in Predicting Treatment Outcomes**

**Tomer Shechner & Shani Danon-Kraun, University of Haifa, Israel**

Anxiety disorders are the most common form of pediatric psychopathology, affecting 5 – 20% of children and adolescents. While Cognitive Behavioral Therapy (CBT) is considered an effective intervention for these disorders, only 50-60% of anxious youth show a significant reduction in anxiety symptoms post-treatment. Therefore, identifying risk and resilience factors to improve treatment efficacy is imperative. Fear conditioning and resistance to extinction are two domains that have been implicated in the etiology and maintenance of anxiety disorders. Indeed, exposure techniques during CBT intervention rely profoundly on extinction learning. The present study examined the behavioral, cognitive, physiological and brain correlates (as measured by event related potentials - ERPs) underlying fear learning among non-anxious youth and anxious youth prior to treatment in an attempt to predict CBT outcomes.

The sample consisted of 26 non-anxious ( $M = 11.29$  years,  $SD = 2.4$  years) and 28 clinically anxious youth ( $M = 11.44$  years,  $SD = 1.99$  year). Clinical anxiety was determined using a semi-structured interview (Anxiety and Related Disorders Interview Schedule – ADIS) administered by a trained clinician. In their first visit to the lab, participants underwent a fear conditioning and extinction task consisting of yellow and blue cartoon bells while self-reported fear ratings and psychophysiology measures (GSR, EMG) were collected. A week later,

participants returned to the lab to complete an extinction recall task, administered to measure return of fear. In this task, the original yellow and blue bells as well as 3 new bell morphs, ranging in color from blue to yellow, were presented. Participants were asked to rate their subjective level of fear and to assess the level of risk associated with each bell. In addition, brain activation was measured with ERPs. Anxious participants then received 12 individual sessions of anxiety-focused cognitive behavioral therapy (CBT). Following treatment, participants repeated the extinction recall task.

Results indicated that anxious and non-anxious youth showed similar learning patterns during fear conditioning and extinction. However, during the extinction recall task a significant interaction emerged between group and self-reported level of fear in response to each morph,  $F(6, 306) = 3.87, p = .001$ . The anxious group reported more fear to the new morphs compared to the non-anxious group (all  $ps > .003$ ). Interestingly, similar patterns were observed in brain activation with group differences in late positive potentials (LPP) amplitudes when new stimuli were presented. Finally, LPP amplitudes in the anxious group following treatment were significantly different from amplitudes before treatment. For example, a difference in LPP was observed in central electrodes before and after treatment,  $F(1,19) = 5.11, p = 0.036$ . Post-treatment LPPs during extinction recall were more similar to brain activation patterns observed in the non-anxious group.

Discussion of these results will focus on ways in which understanding impairments in fear extinction and its retention before and after treatment could potentially: a) clarify the pathophysiological mechanisms of pediatric anxiety; b) improve extinction-based treatment; and c) identify children who would most likely respond well to CBT pre-treatment.

## **Understanding and Treating the Anhedonic Symptoms of Depression: A Translational Research Agenda**

**Convenor: Barney Dunn, University of Exeter, United Kingdom**

**Discussant: Nicole Geschwind, University of Maastricht, the Netherlands**

### **Do Psychological and Pharmacological Treatments of Depression do a Better Job at Repairing Negative Affect than Enhancing Positive Affect? Evaluating Evidence from Randomised Controlled Trials and Routine Outcome Data**

**Laura Warbrick & Emily Widnall, University of Exeter, United Kingdom**

**Background:**

Research into depression has to date primarily focused on understanding and ameliorating elevations in the negative valence system (i.e. sad and anxious mood). It is now recognised that reductions in the positive valence system (i.e. anhedonia and broader wellbeing) are prominent features of depression that are particularly distressing to clients. To move the field forwards, it is necessary to evaluate how well existing treatments repair anhedonia/wellbeing and to examine if this relates to long term depression outcomes.

**Method:**

This talk will present a series of secondary analyses of RCTs and routine registry data to make the case that existing treatments do not adequately repair anhedonia and wellbeing and that if they did so this might lead to enhanced long term depression outcomes.

**Results:**

We will present secondary analyses of the CPT-2 and CPT-3 trials (DeRubeis et al., 2005; Hollon et al., 2014) showing CBT, anti-depressant medication and combined treatment do a better job of repairing negative affect than positive affect, and that changes in both positive and negative affect are both independently associated with depression outcomes. We will present a secondary analysis of the COBRA trial (Richards et al., 2016), showing that CBT and BA do not adequately repair anhedonia symptoms. We will report routine CBT outcomes from UK Improving Access to Psychological Therapy (IAPT) services, showing that CBT does a better job at reducing symptoms of anxiety and depression than building wellbeing. We will analyse the PREVENT mindfulness trial (Kuyken et al., 2016), exploring if post-treatment levels of positive affect predict long term recovery from depression and if the extent of change in positive affect mediates any superiority of mindfulness over treatment as usual.

**Discussion:**

Current treatments fail to repair positive affect satisfactorily. If they did so, this would be of value in its own right (given clients emphasise feeling positive as a central aspect of recovery) and may also enhance overall depression outcomes.

## **Research Challenges and Implications Resulting from Different Conceptualizations of Anhedonia**

**Samuel Winer, Mississippi State University, USA**

Anhedonia is increasingly recognized as a hub symptom linking symptoms of depression and psychopathology and as a prospectively crucial transdiagnostic intervention target. However, the way in which anhedonia is conceptualized and operationalized is also potentially vital with regard to what one's endorsement of anhedonia might indicate, and how anhedonia might best be treated. For example, anhedonia is often measured as a lifelong trait construct, which does not account for recent changes in the experience of or interest in people or things that were previously enjoyed (Winer et al., 2014, 2017). This talk will review behavioral and self-report studies by our research team that demonstrate how differences in anhedonia conceptualization and measurement covary with intuitive and important yet underemphasized differences in how anhedonia relates to other symptoms of depression. The talk will conclude with a few potential challenges to the field that include theoretical considerations of (a) motivational elements related to different presentations of anhedonia, such as reward devaluation (Winer & Salem, 2016), (b) the meaning attributed to anhedonia's temporal precedence with regard to other symptoms of depression (Winer et al., 2016, 2017), and (c) the overarching implications of anhedonia as part of an intraindividual psychopathology network.

## **Assessing Anhedonia via Questionnaire Instruments - the Importance of Mental Imagery Use**

**Julie Ji, University of Western Australia, Australia**

**Simon Blackwell, Marcella L Woud, Angela Bieda & Jürgen Margraf, Ruhr University Bochum, Germany**

Assessments of anhedonia are primarily derived via self-reported questionnaires. Such measures typically ask individuals to make judgements about past or future enjoyment, interest, and seeking of typically rewarding activities, but does not constrain the type of mental representations people employ to arrive at such judgements. Mental imagery-based, as opposed to purely semantic, simulation of possible future experiences is known to exert greater impacts on emotion and motivation. Imagining engaging in an activity allows one to 'pre-experience' the actions involved, how enjoyable and effortful, or otherwise, it may be, which may then have an impact on subjective ratings of liking and wanting for an activity, and their motivation to take steps to do so. Whether people engage in imagery-based simulation of potential activities, and the quality of such imagery may therefore have an impact on self-reported anhedonia symptoms, irrespective of the severity of depression and depression-linked anhedonia symptoms as assessed on convergent measures. The current study tested the role of mental imagery use during completion of a modified anhedonia questionnaire on subsequent judgements of how enjoyable the activity would be, interest in engaging in the activity, and motivation to take steps to engage in the activity. In an online study of English and German-

speaking community samples, participants (N = 394) were randomly allocated to complete a modified version of the Dimensions of Anhedonia Rating Scale (Rizvi et al., 2015) under three instructional conditions: 1) “imagine then rate”; 2) “estimate frequency then rate” (active control); or 3) no instruction (control). At the end of the study, all participants rate how much they engaged in imagery while completing the questionnaire. The contribution of incidental imagery use to variance in anhedonia questionnaire scores, after controlling for relevant demographic and mental health factors, will be presented and discussed.

#### **Impact of Mindfulness-Based Interventions on Positive Affect**

**Merle Kock, Maastricht University, the Netherlands**

**Anke Karl, University of Exeter, United Kingdom**

**Nicole Geschwind, Maastricht University, the Netherlands**

**Willem Kuyken, University of Oxford, United Kingdom**

**Barney Dunn, University of Exeter, United Kingdom**

Deficits in the capacity to experience positive emotions are one of the core symptoms of depression and predict poor treatment prognosis. Thus, it is of major importance to target positive affect deficits in depressed populations. It is now acknowledged that meditative and mindfulness-based interventions can build positive emotions. Which meditative interventions are successful and how these changes are brought about at a mechanistic level, however, is poorly understood. This talk will present data from two secondary analyses of existing trials and one novel experimental study to address this issue. First, a secondary analysis of an RCT will investigate whether change in the observing, describing, acting with awareness, non-judging and non-reacting components of trait mindfulness mediate the repair of positive affect following Mindfulness Based Cognitive Therapy (MBCT) relative to waitlist control in a symptomatic depression sample. Second, a secondary analysis of the PREVENT trial will examine which facets of mindfulness mediate improvement in positive affect (assessed with the dispositional positive emotions scale) following MBCT compared to maintenance medication. This will also examine if changes in positive affect during MBCT mediate long term relapse prevention outcomes. Finally, findings from an experimental study looking at the impact of appreciative joy meditation on positive affect and self-perception using a triangulation of self-report and physiological measures will be reported. Implications for novel interventions and refinement of existing psychotherapies to more explicitly target positive affect will be discussed.

#### **The Positive Affect Regulation in an Online Transdiagnostic Protocol for Emotional Disorders: A Randomized Controlled Trial**

**Javier Fernández-Álvarez, Università Cattolica Sacro Cuore, Italy and Universitat Jaume I, Spain**

**Amanda Diaz-Garcia, Universitat Jaume I, Spain**

**Alberto González-Robles, Universitat Jaume I, Spain**

**Javier Fernández-Álvarez, Università Cattolica Sacro Cuore, Italy and Universitat Jaume I, Spain**

**Juana María Bretón-López & Azucena García-Palacios, Universitat Jaume I, Spain**

**Rosa María Baños, Universidad de Valencia, Spain**

**Cristina Botella, Universitat Jaume I, Spain**

Introduction. Emotional disorders (ED) are among the most prevalent mental disorders, with comorbidity rates ranging between 40 and 80%. In the past few decades, evidence-based psychological treatments have been shown to be effective in the treatment of ED. However, the scale of these treatments is not sufficient to reduce the disease burden of mental disorders. This situation has led to the development of new intervention proposals based on the transdiagnostic perspective, which tries to address the underlying processes common to ED. Most of these transdiagnostic interventions focus primarily on down-regulating negative affectivity, and less attention has been paid to the strengths and the up-regulation of positive affectivity (PA), despite its importance for well-being and mental health. Furthermore, the literature suggests that not all people suffering from ED receive the appropriate treatment and that these interventions do not reach all people in need. It is therefore essential to implement innovative solutions to achieve a successful dissemination of transdiagnostic treatment protocols and, in this sense, the use of Information and Communication Technologies, like the Internet, can be very useful. Objective. This study presents a Randomized Controlled Trial evaluating the efficacy of a transdiagnostic Internet-based treatment for ED in a community sample which includes traditional cognitive-behavioral therapy components, as well as a specific component to address PA. Method. Participants were randomly assigned to a) Transdiagnostic Internet-based protocol (TIBP), b) Transdiagnostic Internet-based protocol + positive affect component (TIBP + PA), or c) a Waiting List control group (WL). Data on positive and negative affectivity, depression and anxiety before and after treatment were analyzed. Results. Within-group comparisons indicated significant pre-post reductions in the two experimental conditions. In the TIBP+PA condition, effect sizes were large on all the primary outcomes while TIBP condition obtained large effect sizes for BDI-II and PANAS-, and medium effect sizes for BAI and PANAS+. Between group comparisons revealed that participants who received the treatment (with and without the specific component to up-regulate positive affect) scored better at post-treatment, compared to the WL group. Discussion. This study aims to contribute to the literature on the efficacy of transdiagnostic approaches to emotional disorders in general, and it more specifically seeks to explore the possible impact of a specific component designed to up-regulate positive affect. Combining a transdiagnostic approach with an online therapy format, and adding the specific component for positive affect, may help to achieve a clear impact on the design and application of future transdiagnostic treatment protocols for emotional disorders, as a way to more effectively address the temperament vulnerabilities, that is, the core aspects of these disorders.

#### **Does Attentional Bias Modification (ABM) Matter? Evaluating the Effectiveness of ABM Interventions Across Psychopathologies**

**Convenor: Janika Heitmann, University of Groningen, the Netherlands**

**Chair: Janika Heitmann, University of Groningen, the Netherlands**

#### **Attentional Bias Modification for Reducing Energy Drink Consumption**

**Eva Kemps, Marika Tiggeman, Mikaela Cibich & Aleksandra Cabala, Flinders University, Australia**

Energy drink consumption is increasing worldwide, especially among young adults, and has been associated with negative health outcomes, ranging from headaches and anxiety, to fatal caffeine toxicity. Thus, the development of interventions to reduce energy drink consumption is of utmost practical importance. Using a dual-process framework, we tested the prediction that energy drink consumption is in part driven by

automatic cognitive processes (attentional bias), with a view to modifying this bias to reduce consumption. Young adults (N=116; 18-25 years) who regularly consume energy drinks completed the dot probe task to measure attentional bias for energy drink cues. They then underwent an attentional bias modification protocol where they were trained to direct their attention away from pictures of energy drink cans. Following a post-training assessment of attentional bias, energy drink consumption was measured by an ostensible taste test. Regular energy drink consumers showed an attentional bias for energy drink cues. Attentional bias modification successfully reduced this bias; however, it did not reduce energy drink intake. The results lend some support to dual-process models which emphasize automatic processing as a key driver of consumption. At a practical level, more extensive training may be required beyond the single session used here to ascertain the potential scope of attentional bias modification as an intervention for reducing energy drink consumption.

#### **Attention Bias Modification (ABM) for Outpatients with Major Depressive Disorder (MDD): A Randomized Controlled Trial** **Eni Becker, Radboud University, the Netherlands**

**Gina Ferrari & Jan Spijker, Radboud University and Pro Persona Expertisecentrum depressie, the Netherlands**

Despite the range of available, evidence-based treatment options for Major Depressive Disorder (MDD), the rather low response and remission rates suggest that treatment is not optimal, yet. Computerized attentional bias modification (ABM) trainings may have the potential to be provided as cost-effective intervention as adjunct to usual care (UC), by speeding up recovery and bringing more patients into remission. Research suggests, that a selective attention to negative information contributes to development and maintenance of depression and that reducing this negative bias might be of therapeutic value. This study aims at evaluating the effectiveness of internet-based ABM, as add-on treatment to UC in adult outpatients with MDD, in a specialized mental health care setting. Preliminary data on the post-treatment measures will be presented. 115 patients (59 females; age: M = 41.71, SD = 12.61) diagnosed with MDD, who were registered for specialized outpatient treatment at a Dutch mental health care institute, were randomized into either a positive ABM-training (i.e., training attention towards positive and away from negative stimuli) or a sham-ABM training, as control condition (i.e., a continuous attention bias assessment). Patients completed eight training sessions (seven at home) during a period of two weeks. As primary outcome measures we investigated changes in attentional bias (pre- to post-test), mood changes in response to a stress-task (at post-test) and effects on depressive symptoms (up to one month after training). Although participants did not show the expected negative attentional bias at baseline, results revealed that the positive training group showed a stronger increase in positive attentional bias than the sham-training group. However, the two groups neither showed differential changes in depressive symptoms, nor did they differ in their mood reactivity and recovery from the stress-task. The findings suggest that home-based ABM can effectively modify attentional processes in patients with major depressive disorder. However, training effects on bias were rather small and no effects were found on clinical measures of depression or emotional vulnerability to stress. While previous studies found promising effects on symptoms in mildly depressed individuals and remitted depressed patients, our results question the therapeutic value of ABM for severely depressed patients.

#### **Beyond the Dot-Probe: Evaluating the Comparative Efficacy of Face Hero, a Novel Gamified Attentional Bias Modification (ABM) Procedure**

**Ben Grafton, Lies Notebaert & Colin MacLeod, The University of Western Australia, Australia**

It is well established that anxiety dysfunction is characterized by biased attentional processing of negative information. Investigators have developed and deployed procedures intended to alter such attentional bias, commonly known as attentional bias modification (ABM) procedures, in an effort to remediate anxiety dysfunction. The most common ABM procedure used is based upon the dot-probe task. In studies employing dot-probe ABM procedures, it has been shown that, when these procedures successfully modify attentional bias, then anxiety dysfunction is reduced. However, these dot-probe ABM procedures do not always successfully modify attentional bias, as intended (c.f. Grafton et al., 2017). Thus, to enable the potential therapeutic benefits of modifying attentional bias to negative information to be more readily capitalized upon, researchers have called for the introduction of new ABM procedures that can more powerfully alter attentional bias. Hence, we developed a novel ABM procedure, Face Hero, which draws upon the gaming principles employed in the popular game Guitar Hero. In Face Hero, participants must identify the location of a target face among an array of cascading distractor faces. This array dynamically speeds up (or slows down) depending upon participant performance. Half of the participants were exposed to a training condition in which the target face was happy (encouraging avoidance of angry faces), whereas the other half of participants were exposed to a training condition in which the target face was angry (encouraging vigilance for angry faces). Across two studies, the effectiveness of Face Hero in producing a group difference in attentional bias was compared to that of a conventional probe-based ABM procedure. Results showed that the magnitude of the group difference in attentional bias following Face Hero training was larger than the group difference in attentional bias following probe-based training. Future research directions and potential clinical applications will be discussed.

#### **A New Attentional Bias Modification Procedure for Unsuccessful Dieters: The Bouncing Image Training Task**

**Nienke Jonker, University of Groningen, the Netherlands**

**Janika Heitmann, Verslavingszorg Noord-Nederland, the Netherlands**

**Brian Ostafin, University of Groningen, the Netherlands**

**Colin MacLeod, The University of Western Australia, Australia**

**Klaske Glashouwer & Peter De Jong, University of Groningen, the Netherlands**

Heightened selective attention to food cues inflates the likelihood of overeating and will set individuals at risk for becoming overweight and developing obesity. Even though many people try to follow a diet to lose weight, individuals are often unsuccessful or relapse after successful weight loss. Specifically difficulty to disengage attention from food cues has been argued to contribute to dieters' failure to maintain their diet goal. In this study, we examined the capacity of a recently developed attentional bias modification training, referred to as the Bouncing Image Training Task (BITT), to enhance unsuccessful dieters' attentional disengagement from food cues. Furthermore, we examined whether the anticipated reduction in difficulty to disengage attention from food would be paralleled by a reduction in food craving and food intake. Unsuccessful dieters were assigned to a training group performing daily BITT sessions for one week (n = 57) or a waitlist control group (n = 56). Both groups completed pre- and post-measures of attentional bias for food and food craving, and their food intake was assessed with a 24-hour food recall interview post-training. Participants in the training group, compared to waitlist controls, showed reduced attention to food cues from pre- to post-training. Moreover, the reduction in AB to food cues exhibited by those who completed the BITT reflected the relative facilitation of attentional disengagement from food cues, rather than a reduction in attentional engagement with food cues. The groups did not differ on food craving or intake post-training. The BITT thus seems a promising procedure for directly manipulating individuals' attentional disengagement from food cues, though its capacity to enhance dieting success has not yet been established.

## **The Efficacy of Attentional Bias Modification Training as Add-On to Regular Treatment in Alcohol and Cannabis Dependent Outpatients: A Randomized Controlled Trial**

**Janika Heitmann, Madelon van Hemel-Ruiter, Brian Ostafin & Peter de Jong, University of Groningen, the Netherlands**

Heightened attentional capture of substance-related cues in the environment (i.e., attentional bias), has been found to contribute to the persistence of addiction. Attentional bias modification (ABM) might, therefore, increase positive treatment outcome and the reduction of relapse rates. Based on some promising research findings, we designed a study to test the clinical relevance of ABM as an add-on component of treatment as usual (TAU) for alcohol and cannabis patients. We investigated the effectiveness of a newly developed home-delivered, multi-session, internet-based ABM intervention. Therefore, participants (N = 169), diagnosed with alcohol or cannabis use disorder, were randomly assigned to one of three conditions: TAU+ABM; TAU+placebo condition; TAU-only. Participants of all conditions completed pre-, post-, and 6 and 12 months follow-up measures of attentional bias, as well as of substance use and craving allowing to assess long-term treatment success and rates of relapse. Further, secondary physical and psychological complaints (depression, anxiety, and stress) were assessed. Participants in the TAU+ABM and the TAU+placebo condition completed their training sessions at home throughout the duration of TAU. Therapists motivated participants to continue the training. This randomized controlled trial is the first to investigate whether an internet-based ABM intervention is effective in reducing relapse rates in alcohol and cannabis use disorder as an add-on to TAU, compared with an active and a waiting list control group. The results of this trial will be presented for the first time during the WCBCT 2019.

## **At the Crossroad of the Past and the Future: Sense of Self and Psychopathology**

**Convenor: Rafaele Huntjens, University of Groningen, the Netherlands**

**Chair: Rafaele Huntjens, University of Groningen, the Netherlands**

**Discussant: Jefferson Singer, Connecticut College, USA**

## **A Narrative Approach to Disorders of the Self**

**Tilman Habermas, Goethe University Frankfurt, Germany**

Psychological disorders of the self can regard both reflective judgments and beliefs about the self as well as the pre-reflective self-experience. In states of depersonalization and derealization only the pre-reflective self-experience is disordered, in schizophrenia the reflective judgments about the self are also severely disordered. Other disorders vary in the degrees to which other component is disordered in specific ways. In this talk I present a model of how narrative identity, or the subjective life story (Erikson, McAdams), and ways of narrating specific experiences, may reflect selves altered by defense mechanisms (Kernberg), and may at the same time offer opportunities for changing the altered selves.

I will sketch five aspects of narratives that may be distorted for defensive purposes, and how each is related to specific aspects of self-experience. Some aspects of altered self-experience may be traced in narratives of single events such as traumatic ones – like the difficulty of connecting a past experience with the different present, retrospective view of the past, showing in states of immersion in the past. Or in depression past experiences are compared to present experiences and views of self, but narrators have a hard time narrating any change in the self. Other aspects may only show in entire life narratives, like the ability to create self-continuity across biographical disruptions, which requires the use of autobiographical reasoning. Studies of depressed and traumatized patients as well as studies of biographical change in a normal lifespan sample will be used to illustrate these points.

Finally I will briefly sketch the curative potential of narrating problematic experiences to someone, and especially to a specifically trained psychotherapist. The author argues for a biographical, narrative approach to disorders of the self.

## **A Self Grounded on Abnormal Autobiographical Memory in Schizophrenia?**

**Fabrice Berna, University of Strasbourg, France**

**Mélissa Allé, University of Aarhus, Denmark**

**Romane Dassing & Jean-Marie Danion, University of Strasbourg, France**

Various aspects of self disorders have been reported in schizophrenia and some authors have regarded them as core symptoms of the illness. Autobiographical memory (AM) encompasses the memory of past personal events but also future thoughts and numerous self-related information, such as self-images. Thus, AM represents a crucial ground for the self and investigating AM provides a unique way to better understanding the cognitive mechanisms of the alterations of self in schizophrenia. Several studies demonstrated patients' difficulty to mentally travel in time and to re-experience the person they were in past events. These findings point to alterations of the experiential component of self. Other studies showed that patients were impaired in their capacity to reason about past events and to find out the meaning of these events, this pointing to a weakness of the narrative self. Similar deficits have been observed in patients regarding future self-projection: patients have difficulty imagining detailed events that will happen in the future and to anticipate possible lessons of future important events. A part of this, the self in schizophrenia has been reported as being less consistent, less stable in time, more passive, and sometime strongly altered by delusional beliefs. We will discuss the therapeutic implications of these findings by considering both cognitive remediation and narrative interventions to strengthen both AM and aspects of self in patients.

## **A Disturbed Narrative Understanding of the Self and of Close Others in People with Borderline Personality Disorder**

**Majse Lind, Aarhus University, Denmark**

Patients with borderline personality disorder (BPD) display disturbances in self and other understanding, which is also evident when they narrate events from their own and significant others' lives. In a recent study, we found that patients described both their own and their parents' life stories as more negative and with fewer themes of agency and communion fulfillment. Hence, we examined whether 12 months of psychotherapy would change how patients described their own and their parents' life stories. At baseline, 30 BPD patients and 30 matched control participants described and answered questions about their personal and their parents' life stories. At follow-up, 23 patients and 23 control participants repeated the same procedure after patients had completed 12 months of psychotherapy. At both baseline and follow-up, the life stories were coded for complexity and themes of agency, communion, communion fulfillment, and self-other confusion. BPD patients' personal life stories increased significantly in agency from baseline to follow-up compared with the control group, whereas other aspects of personal and parents' life stories did not change significantly after therapy. Development of agency through the reconstruction of personal life stories may be a crucial mechanism in psychotherapy with BPD patients.

### **Who Am I? Sense of Self in Dissociative Identity Disorder**

**Rafaële Huntjens, University of Groningen, the Netherlands**

**Rosie Marsh & Martin Dorahy, University of Canterbury, New Zealand**

Rafaële Huntjens will present her work on sense of self in Dissociative Identity Disorder. DID involves a disruption of identity characterized by two or more distinct identity states. She will present on various cognitive paradigms (e.g., Card Sorting Task, Implicit Association Task) to assess sense of self and autobiographical memory functioning across and within different identities. DID patients showed a less stable sense of self compared to healthy comparisons, but they did not show evidence of identity compartmentalization. They also described different self-aspects by using more negative attributes and they made less use of the directive function of autobiographical memory. They also showed an inclination to avoid dealing with (identity) conflicts, and showed less clear goal commitment. These results call for a more explicit focus in DID treatment on aspects of autobiographical memory functioning and (re)construction of identity.

### **Depression-Linked Disturbances in Emotional Memory - New Directions in Assessment and Modulation**

**Convenor: Julie Ji, University of Western Australia, Australia**

**Chair: Julie Ji, University of Western Australia, Australia**

**Discussant: Bethany Teachman, University of Virginia, USA**

### **Remembering or Knowing How We Felt: Role of Depressive Symptoms and Affective Valence**

**Eugenia Gorlin, Yeshiva University, USA**

**Alexandra Wertz, Karl Fua, Ann Lambert, Nauder Namaky & Bethany Teachman, University of Virginia**

As researchers and practitioners, we routinely ask depressed individuals to reflect on how they have felt over various time intervals—from the “last two weeks” to months, years, or even their lifetime—and we use these reports to inform diagnosis and treatment. Yet there is accumulated, if mixed, evidence regarding the disturbance of autobiographical memory and emotional information retrieval in depression and other affective disorders (Mitte, 2008; MacLeod & Mathews, 2004). To clarify the nature and specificity of these disturbances, we conducted two large online data collections (Study 1: N=1983, Study 2: N=900) examining whether depressive symptoms would uniquely predict the self-reported use of concrete/episodic (“remembering”) and/or abstract/semantic (“knowing”) retrieval strategies when rating one’s positive and negative emotional experiences over different timeframes. Participants were randomly assigned to one of six timeframes (ranging from “at this moment” to “last few years”) and were asked to rate how intensely they felt each of four emotions (“anxious,” “sad,” “calm,” and “happy”) over that period. Following each rating, they were asked several follow-up prompts assessing their perceived reliance on episodic and/or semantic information to rate how they felt, using procedures adapted from the traditional remember/know paradigm (Tulving, 1985). Unexpectedly, individuals with higher (versus lower) depressive symptoms reported equal or greater use of concrete/episodic retrieval when recalling emotional states, particularly “sadness,” and lesser use of abstract/semantic retrieval when recalling positive emotional states (“happiness” and “calm”) in particular. These results replicated across the two studies, were consistent across timeframes, and remained largely significant after controlling for anxiety symptoms, confidence in one’s rating, and the emotional intensity rating itself. Secondary analyses examining the effects of depressive symptoms on response latencies, as further moderated by timeframe, emotional valence, and reported retrieval strategy use, were broadly consistent with these findings. Implications for the theory and treatment of emotion-related memory disturbances in depression, and for dual-process theories of memory retrieval more generally, will be discussed.

### **A Randomised Controlled Trial of Memory Flexibility Training (MemFlex) to Enhance Memory Flexibility and Reduce Depressive Symptomatology in Individuals with Major Depressive Disorder**

**Caitlin Hitchcock, University of Cambridge and Cambridgeshire and Peterborough NHS Foundation Trust, United Kingdom**

Successful navigation within the autobiographical memory store is integral to daily cognition. Impairment in the flexibility of memory retrieval can thereby have a detrimental impact on mental health. This randomised controlled phase II exploratory trial (N=60) evaluated the potential of a novel intervention drawn from basic science – an autobiographical Memory Flexibility (MemFlex) training programme – which sought to ameliorate memory difficulties and improve symptoms of Major Depressive Disorder. MemFlex was compared to Psychoeducation (an evidence-based low-intensity intervention) to determine the likely range of effects on a primary cognitive target of memory flexibility at post-intervention, and co-primary clinical targets of self-reported depressive symptoms and diagnostic status at three-month follow-up. These effect sizes could subsequently be used to estimate sample size for a fully-powered trial. Results demonstrated small-moderate, though as expected statistically non-significant, effect sizes in favour of MemFlex for memory flexibility ( $d=0.34$ ,  $p=.20$ ), and loss of diagnosis ( $OR=0.65$ ,  $p=.48$ ), along with the secondary outcome of depression-free days ( $d=0.36$ ,  $p=.18$ ). A smaller effect size was observed for between-group difference in self-reported depressive symptoms ( $d=0.24$ ,  $p=.35$ ). Effect sizes in favour of MemFlex in this early-stage trial suggest that fully-powered evaluation of MemFlex may be warranted as an avenue to improving low-intensity treatment of depression.

### **Task Unrelated Past and Future-Thinking During Mindwandering: Dysphoria-Linked Reductions in Positive Bias**

**Julie Ji, University of Western Australia, Australia**

**Fionnuala Murphy, University of Cambridge, United Kingdom**

**Ben Grafton & Colin MacLeod, University of Western Australia, Australia**

**Emily Holmes, Uppsala University, Sweden**

Thinking about emotional aspects of the past and future impacts on how we feel. Importantly, how we think about the past and future moderates this impact. Past and future-oriented thoughts involving mental imagery can amplify emotion and motivation relative to purely verbal-linguistic representations, and anomalies in imagery-based representations of the past and future has been linked to depression. However, previous research has primarily focused on past and/or future-oriented imagery generated when participants were required to deliberately do so in response to cues. Research on mind-wandering show that up to 50% of daily mental life consists of task-unrelated thoughts generated spontaneously, many of which are evoked by external cues. The present study investigates the tendency to experience emotional past and future-oriented task unrelated thoughts (TUT) as a function of representational format and external cue valence in High Dysphoria ( $n = 22$ ) vs. Low Dysphoria ( $n = 22$ ) individuals. Results indicate that for past-oriented TUTs, dysphoria was associated with



elevated tendency to experience past-oriented TUTs in general, which was driven by higher levels of negative past-TUTs, although this bias was not disproportionately evident for imagery or non-imagery past-TUTs. In contrast, overall future-oriented TUT frequency was not modulated by dysphoria level. However, the tendency to generate positive relative to negative aspects of the future was significantly lower in the High Dysphoria group relative to the Low Dysphoria group, a bias that was present for imagery-based future-TUTs only. Cue valence effects were mixed. The present study advances understanding of depression-linked biases in past and future-oriented off-task thinking.

### **Inducing Positive Involuntary Imagery in Everyday Life: An Experimental Investigation**

**Simon Blackwell, Daniela Dooley, Marcella Woud, Felix Würtz & Jürgen Margraf, Ruhr-Universität Bochum, Germany**

Observational studies suggest that involuntary positive mental images are experienced frequently in daily life and can play a number of important roles in day-to-day functioning. In the context of depression, deficits in the frequency and quality of such positive images may contribute to symptom maintenance. Finding ways to increase and enhance the experience of involuntary positive imagery in daily life may therefore be a useful target for interventions. However, this kind of imagery has been relatively neglected by research, with little direct evidence to support claims regarding its effects or functions. The current study investigated one potential method to induce involuntary positive imagery in daily life and thus explore what may modulate its occurrence, specifically a positive imagery cognitive bias modification (CBM) paradigm in which participants listen to and imagine brief positive imagery scripts. Anecdotal reports from previous clinical studies investigating the effects of imagery CBM in the context of depression had suggested that many participants experienced involuntary memories of the previously imagined training scenarios in their daily life (Blackwell & Holmes, 2010; Blackwell & Holmes, 2017). However, this phenomenon had not been systematically investigated. The aim of the current study was therefore to investigate whether positive involuntary memories of imagery CBM training stimuli can be induced and measured, and further to investigate one factor that might modulate the likelihood of occurrence of such involuntary memories: emotion experienced while imagining the scenarios during the training session. Participants (N = 80, unselected student sample) completed a single session of positive imagery CBM in the lab, having been randomized to either imagine the training scenarios as if emotionally involved, using a first-person (field) perspective, or to imagine them in an emotionally detached manner, using a third-person (observer) perspective. Participants then recorded any involuntary memories of the training scenarios in their everyday life in a diary before returning to the lab three days later. Further outcome measures included involuntary memories induced in a lab-based involuntary memory provocation task, and voluntary memory for the training scenarios. The results have implications for how we can successfully induce involuntary positive images in daily life via simple imagery-based scripts. This may not only have useful clinical applications, but also provides a method for studying an aspect of imagery that is currently under-researched. Further information can be found on the Open Science Framework at: <https://osf.io/whk2b/>

### **Cognitive Biases and Pain**

**Convenor: Emma Jones, University of Sydney, Australia**

**Chair: Louise Sharpe, University of Sydney, Australia**

**Discussant: Dimitri Van Ryckeghem, Maastricht University, the Netherlands and Ghent University, Belgium**

### **Investigating the Content Specificity of Interpretation Biases in Community Adolescents with Impairing Pain**

**Jennifer Lau, King's College London, United Kingdom**

**Maryam Badaoui, University of Surrey, United Kingdom**

**Alan Meehan, King's College London, United Kingdom**

**Lauren Heathcote, Stanford University, USA**

**Edward Barker & Katharine A. Rimes, King's College London, United Kingdom**

Chronic pain is common in youth in the community and can be disabling. Yet there is a paucity of understanding on the factors contributing to pain-associated interference. A tendency to categorise ambiguous stimuli as reflecting bodily threat has been associated with chronic pain in youth with some data suggesting that it also explains variability in pain-linked disability. Yet outstanding questions remain on the nature of these biases – whether these extend to situations around long-term bodily harm e.g. illness, within the bodily harm category, and to situations around interpersonal rejection and humiliation, as well as situations around academic and recreational achievement-based failure. Two hundred and forty three young people aged 16-19 years (mean age = 17.26 years; SD = 5.4 months), drawn from five schools in London, were invited to participate in a study of cognitive factors involved in pain experiences in the community. Based on responses to a pain questionnaire, these adolescents were divided into three groups: pain-free comparison participants (n=116); adolescents with pain but with no or low interference to daily life (n=66); and adolescents with pain and with moderate to high levels of interference (n=28). These adolescents then completed an adapted version of an interpretation bias questionnaire measuring responses to different situations. Those with more impairing forms of pain reported more negative interpretations and fewer positive interpretations of situations relating to immediate injury and long-term health but not to social and academic situations, compared to those with less impairing forms of pain or no pain.

### **Exploring Attentional Biases, Interpretive Biases and Attentional Control in Pain**

**Emma Jones, Louise Sharpe, Michael Nicholas & Hamish MacDougall University of Sydney, Australia**

Key psychological models of chronic pain highlight the central role of interpretation and attentional biases and propose an interactive relationship exists between the two processes. More recent theoretical accounts have suggested attentional control may be important in moderating the relationship between these information processing biases. However, previous studies have predominantly investigated the unique influence of each bias independently, and exploration of the interrelationships between these processes has been marked as an important for the development of the literature. Sixty six people with chronic pain were recruited from a pain management clinic in Sydney, and 66 pain-free controls from a community sample were matched on age and sex. Participants completed a visual search task, while measuring gaze behaviour (attentional bias), an adapted version of the recognition test (interpretive bias) and the flanker task (attentional control). While no significant difference was found between those with and without chronic pain on interpretation bias, participants with moderate to severe levels of pain demonstrated a greater interpretive bias towards pain compared to those with low levels of pain ( $t(2,48) = -2.01, p = .050$ ). Attentional bias and attentional control outcomes will be explored, as will the relationship between all three cognitive processes. This is the first full-scale study investigating multiple biases with attentional control and their relationship to pain in a single sample. Theoretical implications will be discussed.

### **Does Attention Bias Modification Work for Pain and Under what Conditions?**

**Louise Sharpe, University of Sydney, Australia**

**Joel Hoffman, The University of New South Wales, Australia**

**Rachel Lawler, Sarah Lormier, Jemma Todd, Blake Dear & Hamish MacDougall, University of Sydney, Australia**

The published literature suggests that attention bias modification (ABM) shows promise in the management of pain. However, in the anxiety literature, meta-analyses have revealed that publication bias affects the size of observed effects. The aim of this research is to provide an individual participant meta-analysis of 11 studies, all conducted in one laboratory with similar procedures to answer the question: Does ABM work in pain and under what conditions? Across the 11 included studies, there were 1042 participants, of whom 464 were allocated to ABM- (training attention away from pain), 257 to a placebo condition; and 321 to ABM+ (training attention towards pain). Outcomes were pain threshold, pain severity and tolerance. A series of one-way ANOVAs confirmed significant differences between ABM groups for pain threshold ( $F = 4.632$ ,  $p = 0.01$ ) and average pain severity ( $F = 9.916$ ,  $p < 0.0005$ ). However, there were no differences for pain tolerance ( $p = 0.076$ ) or change in attention biases ( $p = 0.829$ ). The observed effects were moderated by threat and fear of pain. Specifically, significant ABM training effects on pain were observed for those trained under high, but not low, threat conditions. Further, fear of pain (but not threat) moderated training effects on tolerance, such that those low in fear of pain benefited from ABM, whereas those high in fear of pain did not. These results suggest that there are significant effects associated with ABM, however, these work best under high threat conditions but for those low in fear of pain.

### **Characterizing Embitterment by Examining Its Occurrence, Potential Determinants and Consequences**

**Convenor: Ger Keijsers, Radboud University, the Netherlands**

**Chair: Michael Linden, Charité University Hospital, Germany**

#### **Suicidal and Aggressive Ideation Associated with Feelings of Embitterment**

**Micheal Linden, Charité University Hospital, Germany**

**Objective:** Mental disorders can be associated with suicidal or aggressive ideation or behavior. In the present study the type, prevalence and dangerousness of fantasies of suicide and aggression is investigated in patients with embitterment.

**Method:** Patients from a department of behavioral medicine were screened for feelings of embitterment and aggressive fantasies.

**Results:** From 3300 inpatients, 3.84% were showing signs of aggressive ideation with an average score on the PTED scale of 2.93 (s.d. = 0.74), speaking for increased embitterment. Most frequently, patients complained in 63% of cases about personal vilification. 94.3% targeted the perpetrator and 10.4% somebody else. Only 34% of the patients reported spontaneously about their current fantasies, while 32.1% showed moderate to strong feelings of shame about their fantasies. 2.8% had definite plans and wanted to act. 5.5% had suicidal ideas and 3.1% had fantasies of murder suicide.

**Conclusions:** Emotions of embitterment are regularly seen in patients with mental problems and are often associated with ideas of aggression and revenge. Therapists must specifically assess this problem and provide targeted treatment, in order to avoid dangerous acts.

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From 3300 inpatients, 3.84% were showing signs of aggressive ideation with an average score on the PTED scale of 2.93 (s.d. = 0.74), speaking for increased embitterment. Most frequently, patients complained in 63% of cases about personal vilification. 94.3% targeted the perpetrator and 10.4% somebody else. Only 34% of the patients reported spontaneously about their current fantasies, while 32.1% showed moderate to strong feelings of shame about their fantasies. 2.8% had definite plans and wanted to act. 5.5% had suicidal ideas and 3.1% had fantasies of murder suicide.

**Conclusions:**

Emotions of embitterment are regularly seen in patients with mental problems and are often associated with ideas of aggression and revenge. Therapists must specifically assess this problem and provide targeted treatment, in order to avoid dangerous acts.

#### **Injustice and Embitterment: Crucial Stressors in Psychosomatic Patients**

**Michael Linden, Charité University Hospital, Germany**

**Background**

Feelings of injustice and embitterment are strong emotions, which can severely impair daily life and even result in psychological disorders. This study investigated the frequency of feelings of injustice and embitterment and their relation to burdens in different areas of daily life.

**Method**

Two hundred inpatients of a department of behavioral medicine filled in the "Differential Life Burden Scale, DLB-Scale" and the "Post-Traumatic Embitterment Scale, PTED-Scale", which asks for experiences of injustice and embitterment. Multiple chi-squared tests were used to analyze group dependent differences.

**Results**

Patients who reported experiences of injustice and embitterment also complained about impairment in wellbeing and significantly more burdens in many areas of life especially in respect to the family and the workplace.

**Conclusion**

The findings indicate that an experience of injustice and embitterment is frequently seen in psychosomatic inpatients. It is associated with severe impairment of well-being and functional capacities, in conjunction with burdens across most areas in life.

## **Embitterment in Patients with a Rheumatic Disease after a Disability Pension Examination: Occurrence and Potential Determinants**

**David Blom, Psychologie in Theater, the Netherlands**

**Sander Thomaes, Utrecht University, the Netherlands**

**Johannes WJ Bijlsma, University Medical Center Utrecht, the Netherlands**

**Rinie Geenen, Utrecht University, the Netherlands**

### **Objective**

Health care and vocational professionals regularly encounter patients with rheumatic diseases who are embittered after a disability pension examination. People who are embittered typically feel victimized, experience resentment and injustice, resist help, and have difficulty coping. Our objective was to examine the occurrence of embitterment in patients with rheumatic diseases after a disability pension examination and the association of embitterment with its possible determinants helplessness and illness invalidation at work.

### **Methods**

The Illness Cognition Questionnaire (ICQ), Illness Invalidation Inventory (3\*1), and Bern Embitterment Inventory were completed by patients who had 9 to 12 weeks earlier received the result of a disability pension examination. Diagnoses were fibromyalgia (n=103), rheumatoid arthritis (n=46), osteoarthritis (n=158), another rheumatic disease (n=62), and more than one rheumatic disease (n=187). Scores were compared to scores of reference groups. Hierarchical regression analyses were conducted.

### **Results**

Eighteen to 27 percent of patients had high levels of embitterment with no differences between diagnostic groups ( $p = .71$ ). Helplessness ( $p < .001$ ), the two invalidation dimensions discounting and lack of understanding ( $p < .001$ ), and the combination of helplessness with these invalidation dimensions ( $p < .01$ ), were predictive of more embitterment.

### **Conclusion**

Our results suggest that, after a disability pension examination, embitterment is present in about one out of five patients with a rheumatic disease. This is problematic insofar as embitterment limits well-being, functioning, and the potential to reintegrate to work. To the extent that helplessness and invalidation at work are causal determinants of embitterment, interventions targeting these aspects may be key to reduce embitterment.

## **The Role of Flexibility in Identifying and Treating Psychopathology**

**Convenor: Einat Levy-Gigi, Bar-Ilan University, Israel**

**Chair: Eva Gilboa-Schechtman, Bar-Ilan University, Israel**

**Discussant: Eva Gilboa-Schechtman, Bar-Ilan University, Israel**

### **Spider Fearfuls' Flexibility During Avoidance Learning**

**Mike Rinck, Eni Becker & Xujia Luo, Radboud University, the Netherlands**

Avoidance of threat is a hallmark symptom of anxiety and anxiety disorders, and it contributes to the maintenance of anxiety disorders. Moreover, it involves learning and cognitive flexibility: In order to successfully avoid threatening stimuli, one has to learn when and where they occur, and once these situations change, one has to adapt to them flexibly. We studied these processes of flexible avoidance learning in spider-fearful participants, using an immersive virtual environment. In 3 experiments, participants were asked to repeatedly lift one of 3 virtual boxes, under which either a toy car or a spider appeared and then approached the participant. Participants were not told that the probability of encountering a spider differed across boxes (10% vs. 40% vs. 90%), or that the probabilities would be reversed in the middle of the experiment (90% vs. 40% vs. 10%). When the difference in probabilities was as large as this (Exps. 1 and 2), spider-fearfuls quickly learned to avoid spiders by lifting the 10%-spiders-box more often and the 90%-spiders-box less often than non-fearful controls did, and they flexibly and quickly reversed their choices when the probabilities were secretly reversed. However, they failed to do so in Exp. 3, where the probability differences were small (30%-50%-70% switched to 60%-50%-40%; Exp. 3). We will discuss implications and limitations of these findings.

### **Social Anxiety and Cognitive Flexibility: The Challenge of Learning in a Changing Environment**

**Reut Tzabag, Einat Levy-Gigi & Eva Gilboa Schechtman, Bar-Ilan University, Israel**

Social anxiety (SA) is associated with a rigidly avoid coping style, suggesting that cognitive flexibility may play an important role in explaining the etiology and symptomatology of the disorder. However, to date, empirical studies which aim to examine the relationship between SA and cognitive flexibility are sparse.

In this talk we will present three studies which examine this relationship using a novel performance-based paradigm that seeks to examine whether, and to what extent, individuals adapt their behaviour according to environmental changes. The task includes acquisition and reversal phases. In the acquisition phase, participants learn by trial and error, that certain individuals differing in their facial expressions (happy, angry and neutral) are associated with punishment, reward, or neutral outcome. Following a successful learning, the outcome of the expressions is reversed, hence, a facial expression that was associated with a punishment is now associated with a reward outcome and vice versa.

Two studies were conducted. In Study 1 (n=80 students; 85% female, mean age = 22.4, sd=2.4) we found that whereas low SA individuals were able to reverse their learning easily, high-SA individuals struggled to learn that a facial expression which was linked to punishment was later associated with a rewarding outcome. Moreover, SA was associated with slower response time in reversal learning from punishment to reward. In Study 2 we partially replicated these results in an online diverse sample (n=250, 52% female, mean age =37, sd=10.6). In this study, in angry but not in happy and neutral facial expressions, high SA individuals struggled to learn that a facial expression which was linked to punishment was later associated with a rewarding outcome. These effects were found above and beyond the effect of depression. In order to examine whether impairments in cognitive flexibility also exist in tasks using neutral stimuli, in study 3 (n=90 students) we will assess flexibility in emotional and non-emotional conditions. We hypothesize that high, but not low, SA individuals will show a selective and specific impairment in emotional stimuli, while the ability to act in a flexible manner in neutral condition would not differ between the groups.

## **The Relationship Between Cognitive Flexibility, Empathy and Pain in Children with Repeated Traumatic Exposure**

**Moriya Rachmani & Einat Levy-Gigi, Bar-Ilan University, Israel**

When individuals who are exposed to repeated aversive events over an extended period of time, the trauma may become the reality of their lives. One possible implication of such exposure are impairments in social skills, including empathy abilities. However, it is not yet clear whether and how cognitive flexibility interacts with level and type of exposure to predict such impairments. In this talk we will present a study which aimed to test the relationship between exposure level, cognitive flexibility and empathy in Israeli children (ages 9 and 11) with and without repeated traumatic exposure. The study applied novel performance based paradigms to measure cognitive flexibility as well as general and outgroup related empathy. We predicted that children with repeated traumatic exposure will show less empathy compared to controls. However, trauma exposed children with high cognitive flexibility will show more empathy than exposed children with low cognitive flexibility especially towards out-group members.

## **Cognitive Flexibility in Social Anxiety: Learning Reversals of Social Reward and Punishment**

**Lisan Henricks & Mathieu Ronkes Agerbeek, Radboud University, the Netherlands**

**Reut Tzabag & Eva Gilboa-Schechtman, Bar-Ilan University, Israel**

**Mike Rinck, Radboud University, the Netherlands**

Cognitive flexibility is seen as a general aspect of mental health, and socially anxious individuals show a lack of flexibility when it comes to socially relevant stimuli and situations. We investigated this phenomenon using a reversal learning task with neutral faces. The female participants - who differed in social anxiety - saw pictures of 6 unknown males repeatedly. Each time a face was shown, they had to decide whether to ask this person a question or not. Asking a question could lead to different consequences: Two males were rewarding because asking them caused the participant to win points, two other males were punishing because they caused the participant to lose points, and the remaining two were neutral because asking them caused neither losing nor winning. The participants' task was to maximize the resulting number of points by asking the right males. Unbeknown to the participants, the task consisted of three blocks: During the first "learning block", participants had to learn which males to ask versus not to ask in order to maximize their points. Most importantly, they had to learn to ask rewarding males and not to ask punishing males. Without warning, the learning block turned into the "first reversal block" in which all males were paired with new consequences (e.g., a rewarding male became punishing, the other rewarding male became neutral, etc.). Later, the first reversal block turned into the "second reversal block", and all males were paired with a new consequence again (e.g., a rewarding male that had become punishing now became neutral, etc.). We predicted that the more socially anxious the participants were, the more difficult it would be for them to adapt their behavior flexibly to the reversals. In particular, based on earlier research, we expected the highly socially anxious to show more persisting avoidance of punishing males, and therefore less flexibility in learning when punishing males changed into rewarding or neutral ones.

## **Cognitive Behavioral Therapy at the Crossroads with Neuroscience: New Perspectives for Precision Psychotherapy?**

**Convenor: Ulrike Lueken, Humboldt-Universität zu Berlin, Deutschland**

**Chair: Michelle Craske, University of California, USA**

## **One (of Many Ways) We Can Advance Psychological Treatment Research Will Be Through Mental Health Science**

**Emily Holmes, Uppsala University, Sweden**

Emily Holmes will open the symposium by considering the bigger picture of how and why neuroscience has potential to exert benefits for clinical psychology and psychotherapy research. She will give an overview of the recent Lancet Psychiatry commission on the future of psychological treatments research which can be freely downloaded at:

Holmes, E. A., Ghaderi, A., Harmer, C., Ramchandani, P. G., Cuijpers, P., Morrison, A. P., Roiser, J. P., Bockting, C. L. H., O'Connor, R. C., Shafan, R., Moulds, M.L., & Craske, M. G. (2018). The Lancet Psychiatry Commission on Psychological Treatments Research in Tomorrow's Science. *Lancet Psychiatry*. 5(3). 237-86. [http://dx.doi.org/10.1016/S2215-0366\(17\)30513-8](http://dx.doi.org/10.1016/S2215-0366(17)30513-8)

This commission is interested about the future of psychological treatments research, in "Tomorrow's Science", that is, a leap beyond where we are today. The commission arose from an initial consultation meeting in which researchers from a variety of backgrounds with interests or expertise in psychological treatments research met to discuss challenges in the field, and to lay out possibilities for a future research agenda for advancing the science of psychological treatments. The commission is comprised of ten parts, each of which contains a theme that we consider critical to the development and improvement of research on psychological treatments: mechanisms of psychological treatments, deployment of psychological treatments, cross-modal treatment approaches, prevention and early intervention, the role of technology in psychological treatments, evaluating psychological treatments, interdisciplinary training, complexity of mental health problems, suicidal behaviour, and finally, future directions in the development and innovation of psychological treatments.

It is hoped we are agree that psychological treatments need improvement e.g. for whom that work, how well and to have a more global reach. We may disagree on how to do that – and such disagreement is encouraged (see the fourth plinth metaphor). There is no one right way – we will need multiple routes from all areas of science, social science, public health and policy and so forth. We are suggesting that one (of many ways) we can advance psychological treatment research will be through mental health science. To date progress is slim. Can we improve this is the future? Constructive discussion as to how to support researchers in the endeavours is encouraged.

## **Mechanisms Underlying Pathological Fear and Avoidance and their Exposure-Based Treatment**

**Andre Pittig, University of Würzburg, Germany**

Exposure therapy is the first-line treatment for anxiety and related disorders. Yet, not all treated individuals fully benefit in the long-run and it remains unclear who will benefit best. Identifying and targeting core mechanisms of change underlying exposure therapy may help to optimize treatment outcome and individualized psychotherapy. Basic neuroscientific research provided comprehensive evidence for extinction learning as a core mechanism. Clinically, these findings initiated a shift towards therapeutic rationales focusing on strategies to boost extinction learning and ultimately long-term treatment outcome. This talk will give an introduction into experimental and clinical research on extinction learning and its optimization. Specifically, it will highlight the role of exposure-induced prediction error and its motivational antecedents, namely the reduction of pathological avoidance behavior. Prediction error refers to a mismatch of what is expected to occur and what actually occurs. For example, individuals with agoraphobia may conduct exposure in public transportation to experience that the expected threat of getting a heart attack does not occur. Based on a multi-center clinical trial for adults with anxiety disorders ( $N > 700$ ), strategies to induce prediction error and their role for treatment outcome will be presented. Analyses of individual moderators for the

magnitude of prediction errors during exposure therapy help to identify theranostic markers that may inform decisions towards individualized psychotherapy. Finally, the interaction between different mechanisms of change is exemplified by the interplay of exposure-induced learning and avoidance and safety behaviors, which need to be target to enable successful exposure. Combined, the crossroad of neuroscience and CBT may support an individual-focus optimization of cognitive-behavioral interventions.

### **Predicting CBT Response for Generalized Anxiety Disorder and Major Depressive Disorder: A Neuroimaging Approach**

**Robin Aupperle, Laureate Institute for Brain Research and The University of Tulsa, USA**

**Timothy McDermott & Namik Kirlic, Laureate Institute for Brain Research, USA**

**Christopher Martell, University of Massachusetts, USA**

**Kate Wolitzky-Taylor, University of California, USA**

**James Abelson, University of Michigan, USA**

**Michelle Craske, University of California, USA**

**Martin Paulus, Laureate Institute for Brain Research, USA**

Generalized anxiety disorder (GAD) is one of the most commonly diagnosed mental health disorders, with a 6% lifetime prevalence rate. Although there is significant symptom overlap with major depressive disorder (MDD), a comorbid GAD diagnosis conveys a much poorer prognosis. While cognitive behavioral therapy for GAD is superior to placebo, only 40-60% experience significant improvement. Understanding neurocognitive processes contributing to treatment response could help identify patients likely to be refractory and develop individualized treatment approaches. Neuroscientific investigation of anxiety treatment has focused on threat reactivity, but anxiety's impact may be generated by simultaneous and balanced activation of approach and avoidance systems ('approach-avoidance conflict'). Previous work suggests that prefrontal-amygdala-striatal circuitry may support processing of approach-avoidance conflict. Here, we present preliminary results from a study examining whether neural activation during approach-avoidance decision-making predicts response to two different therapy approaches for GAD. A preliminary cohort of 48 individuals with GAD (41 female; age  $M = 35.69$ ; 18 with current and 40 with lifetime MDD) have completed an approach avoidance conflict (AAC) task during functional magnetic resonance imaging (fMRI). In this task, individuals have to make "approach" or "avoid" decisions when faced with both "punishment" and reward outcomes (exposure to negatively-valenced images/sounds and 2, 4, or 6 cents earning per trial). After baseline assessment, participants were randomized to complete 10 weeks of either behavioral activation (BA) or exposure-based therapy (EBT), conducted in a group setting. Primary symptom outcome was GAD-7 score. Percent signal change (PSC) for a priori bilateral dorsolateral prefrontal cortex (dlPFC), amygdala, and striatum regions of interest were extracted for trials in which participants were faced with approach-avoidance conflict decisions. Linear regression analyses were conducted in R statistical package with PSC and treatment condition as predictors, post-treatment GAD-7 as outcome, and pre-treatment GAD-7, gender, and age as covariates. Preliminary analyses indicate that GAD-7 scores declined with treatment, in both treatment groups; and 46% of individuals exhibited a 50% score reduction. Baseline conflict activation within bilateral amygdala related to baseline GAD-7 score ( $ps < 0.01$ ). Baseline conflict activation within bilateral dlPFC differentially predicted treatment outcomes for BA versus EBT ( $ps < .002$ ), with greater activation predicting worse outcomes for EBT but better outcomes for BA. These results suggest that amygdala activation to approach-avoidance conflict is linked to GAD symptoms. However, dlPFC activation in this context may predict how individuals will respond to different types of treatment. The dlPFC is important in decision-making and action selection. Individuals who expend more neurocognitive effort on conflict decision-making appear less likely to benefit from exposure-based interventions that primarily target avoidance and threat reactivity. Discussion will focus on how results may support the potential for neuroimaging to inform personalized psychotherapeutic approaches.

### **From Neuroscience to Ultra-Brief Treatments for Anxiety Disorders?**

**Andrea Reinecke, University of Oxford, United Kingdom**

One in five people suffer from a disabling anxiety disorder at some point in their life, being overly insecure in social situations, worrying excessively, or having unexpected panic attacks. Cognitive-behaviour therapy (CBT) can improve life-quality drastically by training new behaviour and thinking, but courses are long and expensive, often unavailable, and ineffective for some patients. Identifying the exact mechanisms of action of CBT is crucial to improve psychological treatments for anxiety disorders. Using neuroscience and pharmacological challenge approaches, our research aims to detect brain mechanisms that drive clinical recovery during CBT, and to establish potential pharmacological add-on treatments that may boost these effects logically and synergistically.

Our work has shown that a carefully-designed single session of CBT already lifts anxiety dramatically, with one in three patients even being symptom free. Interestingly, this decrease in anxiety occurred with a 1-month delay, and it was stronger in patients showing a stronger reduction in amygdala activity and threat processing on the day after treatment. These findings suggest that treatment doses required for recovery from anxiety may be much lower than previously thought, and that the effects of this minimal CBT intervention might be further optimized by targeting and augmenting amygdala changes occurring very early during treatment. This talk will discuss studies looking at the effects of different pharmacological compounds on threat processing in the amygdala in healthy volunteers, to identify synergistic overlaps with CBT action. It will also highlight a clinical study where the combination of single-session CBT with a cognitive enhancer lead to recovery in  $\frac{1}{4}$  of patients, comparable to rates seen after standard longer-term courses.

Our findings show that by using a pharmacological-psychological combination approach, ultra-brief CBT may be developed into a highly effective stand-alone treatment, with response rates equivalent to currently available interventions. Such economic treatment formats may lead to a rapid paradigm shift in mental health care by allowing easy-to-deliver standardised treatment of a higher number of patients with anxiety in a timely manner.

## **Symposium: Inferential Confusion as a Transdiagnostic Process**

**Convenor: Kieron O'Connor, University of Montreal, Canada**

**Chair: Kieron O'Connor, University of Montreal, Canada**

**Discussant: Henry Visser, Marina de Wolf Centre, the Netherlands**

### **Inverse Reasoning in Obsessive-Compulsive Disorder**

**Shui Wong, University of New South Wales, Australia**

**Frederick Aardema, Université de Montréal, Canada**

**Jessica Grisham, University of New South Wales, Australia**

The Inference-Based Approach is an alternative cognitive model to the prominent cognitive appraisal model of obsessive-compulsive disorder (OCD). The Inference-Based Approach proposes that faulty reasoning processes are responsible for OCD individuals confusing imagined possibilities with reality. One such reasoning process is inverse reasoning, where hypothetical causes form the basis of conclusions about reality. Recently, we developed a task-based measure of inverse reasoning to better understand the role of this construct in OCD. In the first study, we recruited 138 participants who completed an online questionnaire study which included this task and self-report measures of OCD and other psychological disorders. We found that endorsement of inverse reasoning on this task was significantly and uniquely associated with self-reported OCD symptoms. In the second study, we extended the first study using a between-groups design in a clinical sample. This study compared endorsement in inverse reasoning on this task between individuals diagnosed with OCD ( $n = 24$ ), anxiety and/or mood disorder (clinical controls;  $n = 24$ ), and healthy individuals (healthy controls;  $n = 27$ ). Relative to both control groups, the OCD group demonstrated significantly greater endorsement in inverse reasoning on scenarios where OCD relevant concerns were prompted. When non-OCD relevant concerns were involved, the OCD group only evidenced greater endorsement in inverse reasoning relative to the healthy control group. Both studies provide important converging evidence for the IBA assertion: that inverse reasoning plays a significant role in OCD symptomatology. Clinical and theoretical implications are discussed.

### **The Relationship of Inferential Confusion and Obsessive Beliefs with Symptom Severity Across Different Obsessive-Compulsive Disorder Spectrum Groups**

**Louis-Philippe Baraby & Frederick Aardema, University of Montreal, Canada**

**Kevin Wu, Northern Illinois University, USA**

**Richard Moulding, Deakin University, Australia**

**Jean-Sébastien Audet, University of Montreal, Canada**

This study aimed to investigate the specificity of inferential confusion and obsessive beliefs to symptoms of obsessive-compulsive disorder (OCD) and related disorders. The construct of inferential confusion is grounded in an Inference-Based Approach (IBA) to the study of OCD, which maintains that dysfunctional reasoning plays a central role in its development, whereas other cognitive models have emphasized the role of obsessive beliefs in the escalation of intrusive thoughts into obsessions. Further, previous studies investigating inferential confusion have found varying results across diagnostic groups, such as body dysmorphic disorder and hoarding. To further investigate the role of inferential confusion and obsessive beliefs, a group of individuals diagnosed with OCD ( $N=296$ ) completed the Inferential Confusion Questionnaire (ICQ-EV) and the Obsessive Beliefs Questionnaire (OBQ-44). As expected, inferential confusion and obsessive beliefs uniquely predicted OCD symptoms. Specifically, importance and control of thoughts was particularly relevant to obsessions, perfectionism and certainty to precision, and just right and inferential confusion to indecision and rumination. Beliefs about responsibility and threat did not uniquely predict any symptoms of OCD. Results are discussed in terms of future avenues for research, and how an investigation of cognitive constructs that are not explicitly represented in the OBQ-44 may help to further inform and refine cognitive models of OCD.

### **An Experimental Manipulation of Inferential Confusion in Eating Disorders**

**Catherine Ouellet-Courtois, University of Montreal, Canada**

**Kieron O'Connor, University of Montreal, Montreal University Institute of Mental Health, Canada**

**Purpose.** Inferential confusion (IC) entails confusing an imagined possibility with a real sensory-based possibility, and acting upon the imagined possibility as if it was real. Although IC was formulated in the context of obsessive-compulsive disorder (OCD), this reasoning bias also appears to be relevant to other OCD spectrum disorders, such as eating disorders (EDs). For instance, an individual suffering from an ED might not trust what she sees in the mirror, and think about all the weight she might have put on, to the extent that she longer sees herself as she is in reality. The current study was designed to reproduce the construct of IC experimentally and to induce it in individuals with an ED relative to healthy controls (HC). To this end, IC was reproduced through videos depicting rituals seen in OCD and EDs. **Method.** The total sample will involve a total of 36 women (ED group,  $n=18$ ; HC group,  $n=18$ ). Recruitment is still ongoing. Participants were assigned to one of the experimental conditions: in the High IC condition, participants watched videos where some key sequences were missing – thus provoking a distrust of the senses and lending more space for the imagination, thus triggering IC reasoning, while in the Low IC condition, participants watched videos that had no ambiguities, thus leaving very little space for alternative conclusions about what might have happened in the videos. After condition assignment, participants watched a total of six videos depicting OCD, ED and neutral scenarios and completed measures of IC, as well as OCD and ED symptoms at baseline, post-videos, and at the end of the study. **Results.** Preliminary analyses with a repeated measures ANOVA indicated a VideoXConditionXGroup interaction: the ED group exposed to an ED scenario and assigned to the High IC condition demonstrated greater IC compared to the HC group. Moreover, the ED group reported a greater desire to engage in compulsive behaviors after watching an ED scenario than HC, and this regardless of the experimental manipulation. **Conclusions.** These preliminary findings suggest that individuals with EDs display a greater vulnerability to IC than HC individuals and that they are more prone to compulsive behaviors, when exposed to stimuli relevant to their obsessional themes. This investigation may help us to better understand the relationship between EDs and OCD through the examination of factors that are potentially implicated in both disorders.

### **Inferential Confusion in Bulimia Nervosa: The Role of Over-Investment in Possibility and Distrust of the Senses**

**Samantha Wilson, Douglas Mental Health University Institute, Canada**

**Frederick Aardema & Kieron O'Connor, University of Montreal, Montreal University Institute of Mental Health, Canada**

Inferential confusion is a maladaptive inductive reasoning process comprised of two interrelated components: over-investment in possibility-based information and distrust of the senses. There is strong empirical support for the role of inferential confusion in eliciting pathological

doubt in obsessive compulsive disorder (OCD). It has been suggested that inferential confusion is a transdiagnostic construct, playing a role in disorders that are closely related to OCD. Bulimia nervosa (BN), like other eating disorders, shares important similarities with OCD, particularly in terms of phenomenology and cognitive processes, in addition to a high rate of comorbidity. Inferential confusion may represent another cognitive process common to both disorders. In support of this, past research has demonstrated that treatment directly targeting inferential confusion has been found to be effective in reducing eating disorder symptoms in a sample with BN. In order to better understand the potential role of inferential confusion in this population, 25 women with BN and 25 healthy control (HC) women were recruited. Each component of inferential confusion was examined separately. The over-investment in possibility-based information component of inferential confusion was investigated using adapted versions of the Reasoning with Inductive Arguments Task (RIAT) and Inference Processes Task (IPT), both of which have been validated as analogues of doubt in OCD samples. A body checking task was designed to examine the relationship between perseverative attending to the body and the distrust of the senses component of inferential confusion, operationalized as perceptual confidence. The Fear of Self Questionnaire (FSQ) was also administered to evaluate investment in a feared possible identity, a construct related to inferential confusion. On the IPT, the BN group was more influenced by possibility-based information than the HC group, which resulted in increased investment in a feared outcome  $F(5.44, 255.78) = 6.94, p > .001, d = .77$ . Results for the RIAT only partially supported the hypotheses as significant decreases in confidence following the presentation of possibility-based information were observed in the BN group for items with neutral content only  $F(1, 47) = 9.71, p = .003, \eta^2 = .17$ . The BN group experienced greater distrust of the senses due to repetitive body checking than the HC group as indicated by decreases in perceptual confidence from pre- to post-body checking  $F(1, 43) = 13.31, p < .001, \eta^2 = .24$ . The BN group also evinced higher levels of fear of self as compared to the HC group  $t(29.98) = 8.4, p > .001, d = 2.36$ , suggesting over-investment in a feared possible self. Indicators of greater doubt on the reasoning and body checking tasks as well as greater fear of self were correlated with higher scores on self-report measures of eating disorder symptoms, suggesting that inferential confusion may be linked to symptom severity in BN. These results suggest that inferential confusion may represent a transdiagnostic process common to both OCD and BN with important clinical implications.

## **Recent Developments in the Study of the Vulnerability to and Prevention of Depression**

**Convenor: Ragnar Ólafsson, University of Iceland, Iceland**

**Chair: Ragnar Ólafsson, University of Iceland, Iceland**

**Discussant: Edward Watkins, University of Exeter, United Kingdom**

### **The Habit-Goal Framework of Depressive Rumination: Results from a Student Sample**

**Ragnar Ólafsson, Kristján Hjartarson, Ágústa Friðriksdóttir, Brynja Þórsdóttir, Nina Arnardóttir, University of Iceland, Iceland**

**Laura Bringmann, University of Groningen, the Netherlands**

**Ívar Snorrason, McLean Hospital, Harvard Medical School, USA**

**Introduction:** Inability to respond flexibly to changing situational demands is characteristic of many forms of psychopathology. In depression, it is evident in reactive and rigid ruminative thoughts and mood-reactive negative attitudes. Watkins and Nolen-Hoeksema (2014) have recently proposed a habit-goal framework of rumination, that is based on the notion that patterns of negative thoughts in depression can be construed as mental habits that are triggered by negative mood without awareness, intent or effort and are difficult to control. The aim of the present study was to test predictions derived from the habit-goal framework of rumination in a sample of university students. We predicted that self-reported habitual characteristics of negative thoughts would be associated with ruminative brooding but not reflective pondering and would be associated with persistence of global negative self-judgements and negative mood during a rumination induction task. We also explored if rumination and self-reported habitual characteristics of negative thoughts would be associated with a more general proneness towards habitual responding.

**Method:** In total, 115 university students participated in the study and filled in the Ruminative Responses Scale (RRS), Beck's Depression and Anxiety Inventories (BDI-II, BAI), and Habit Index of Negative Thinking (HINT). They also completed a rumination induction task following mood-manipulation where negative mood and global negative self-judgements of worthlessness/incompetency and unacceptability/unlovability were measured pre (T1) and post (T2) mood-manipulation and at the end the rumination induction (T3). General proneness towards habitual responding was measured with the automaticity and routine scales of the Creatures of Habit Scale (COHS), and the Fabulous Fruit Game (FFG) that measures habit vs. goal-directed behaviour control during outcome devaluation tasks.

**Results:** Self-reported characteristics of negative thoughts (HINT) were correlated with ruminative brooding but not reflective pondering. Similar pattern was observed with the subscales of the COHS although correlations were lower. Manipulation of mood was successful and increases in global negative self-judgements were also observed at T2. Regression analyses showed that ruminative brooding and habitual characteristics (HINT) (but not general proneness to habitual responding (COHS, FFG)) were significant predictors of greater persistence of dysphoric mood (but not global negative self-judgements) after rumination-induction (T3).

**Conclusions:** The results partly support the hypothesis and agree with the habit-goal framework of depressive rumination. They indicate that habitual nature of abstract and analytical processing style could contribute to greater maladaptive consequences in depression. Future studies should address automaticity of ruminative thoughts as a separate aspect of depressive rumination.

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### **Habitual Characteristics of Rumination and Their Relationship with Fluctuations of Mood and Cognitions in Daily Life**

**Kristján Hjartarson, Ragnar P. Ólafsson, Ágústa Friðriksdóttir, Brynja B. Þórsdóttir, Nina B. Arnardóttir, University of Iceland, Iceland**

**Ívar Snorrason, McLean Hospital, Harvard Medical School, USA**

**Laura Bringmann, University of Groningen, the Netherlands**

**Introduction:** Depressive rumination has recently been conceptualized as a form of mental habit. According to the habit-goal framework, negative mood can serve as a habitual trigger for ruminative thinking, and this pairing of mood and ruminative thoughts is hypothesized to lead to greater depression vulnerability (Watkins & Nolen-Hoeksema, 2014). However, empirical validations of this causal sequence are lacking and traditional cross-sectional research is ill suited to test the temporal relationship posited in the framework. The aim of the present study was to investigate the influence of habit on the dynamic interplay between daily fluctuations in mood and ruminative thinking using experience sampling methodology (Myin-Germeys, 2018). Such sampling of momentary experiences should lead to a better understanding of the temporal relationship between mood and ruminative thoughts as they occur in daily life. **Method:** A total of 115 university students took

part in a 6-day experience sampling period using a smartphone application for Android and IOS (Thai & Page-Gould, 2017). Participants were prompted to answer questions on momentary mood and cognition 10 times each day over a 12-hour period according to a stratified random interval scheme. Cross-sectional measures of rumination and habitual characteristics (i.e. automaticity, lack of control, intent and awareness) were also administered, including the Habit Index of Negative Thinking (HINT; Verplanken et al., 2007). The data was analysed using Dynamic Structural Equation Modelling in Mplus, that allows for the modelling of multilevel time-series data (Hamaker et al., 2018). Results: Preliminary analyses show that negative mood was a significant predictor of subsequent ruminative thinking when controlling for both previous levels of rumination and concurrent levels of negative mood. Notably, HINT predicted a greater effect of negative mood on subsequent ruminative thinking. A heightened pairing of negative mood and subsequent ruminative thinking was associated with greater emotional inertia. Conclusions: The interplay between momentary fluctuations in mood and ruminative thinking is consistent with the habit-goal framework. Greater shifts towards negative mood are associated with heightened ruminative thinking over time. Importantly, habitual characteristics of negative thinking (HINT) are associated with a stronger pairing of mood and rumination in daily life, which in turn might lead to a greater persistence of negative mood.

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### **Temperament in Remitted Depression: The Role of Effortful Control and Attentional Mechanisms**

**Igor Marchetti, University of Trieste, Italy**

**Ivan Grahek & Ernst Koster, Ghent University, Belgium**

Temperament in adulthood is increasingly investigated as an underlying mechanism in depression and anxiety symptoms. More specifically, effortful control and attentional networks efficiency have recently received great attention as a potential vulnerability process. However, it is still unknown whether these factors facilitate depressive and anxiety symptoms in the general population and, more specifically, in remitted depressed individuals. Hence, we investigated to what extent effortful control and attentional networks (i.e., Attention Network Task) explain concurrent depressive and anxious symptoms in healthy individuals (n=270) and remitted depressed individuals (n=90). Both samples were highly representative of the US population. Our analysis showed that increased effortful control predicted a substantial decrease in symptoms of both depression and anxiety in the whole sample, whereas decreased efficiency of executive attention predicted a modest increase in depressive symptoms. Remitted depressed individuals did not show less effortful control nor less efficient attentional networks than healthy individuals. Moreover, clinical status did not moderate the relationship between temperamental factors and either depressive or anxiety symptoms. Exploratory single-symptom analysis was also performed. Limitations include the cross-sectional nature of the study. In conclusion, our study showed that temperamental effortful control represents an important transdiagnostic process for depressive and anxiety symptoms in adults.

### **Cognitive Control Training and Relapse Prevention in Depression**

**Nathan Van den Bergh & Kristof Hoorelbeke, Ghent University, Belgium**

**Marieke Wichers, University of Groningen, the Netherlands**

**Rudi De Raedt & Ernst Koster, Ghent University, Belgium**

Even though several evidence-based interventions for major depression are available, relapse rates remain high and relapse prevention programs are still scarce. In order to increase effectiveness, novel techniques that target underlying vulnerability factors may be a promising avenue. Depression is associated with impairments in executive functioning, which is in turn associated with Repetitive Negative Thinking (RNT), a key vulnerability factor for relapse. Cognitive Control Training (CCT), or other techniques aimed at remediating executive functioning, provide an interesting way to examine the causal status of executive functions in depression-related symptoms. Previous studies have shown that CCT has the potential to buffer against RNT in response to stress, while new research in a remitted depressed sample suggests that the relapse rate in the year following CCT was significantly lower than in the active control condition. Interestingly, performance on a standardized cognitive task remained very high, even after one year had passed since completion of the training. This finding casts doubt on the notion that increased performance is due to becoming more effective in the task itself, rather than improving the cognitive functions that are the target of the training. Caution is warranted however, despite the encouraging result with regard to the relapse rates, as there were no differences between the patient groups at the level of self-report questionnaires. Possible explanations for this discrepancy and the implications of our results will be discussed.



## **Transdiagnostic Applications of Mental Imagery Based Interventions Targeting Motivation, Decision Making and Behaviour**

**Convenor: Fritz Renner, University of Freiburg, Germany**

**Chair: David Kavanagh, Queensland University of Technology, Australia**

**Discussant: David Kavanagh, Queensland University of Technology, Australia**

### **Reward vs. Effort Information Processing: The Impact of Presentation Order on Memory, Judgment and Behaviour**

**Julie Lin Ji, Lisa Saulsman & Colin MacLeod, The University of Western Australia, Australia**

The motivation to engage in activities in daily life is influenced by evaluations of the benefits (e.g. fun, novelty, positive emotions) vs. costs (e.g. effort, frustration, negative emotions). Behavioural treatments for depression typically involve motivating individuals experiencing depression to seek potentially rewarding activities, which require overcoming barriers such as effort and frustration. Research on judgement and memory show that the order in which information is processed about a stimuli can impact subsequent evaluations of the stimuli. It is presently unknown how the order in which individuals process information about the benefits vs. costs of a novel experience impacts on a) memory accuracy; b) anticipated enjoyment vs. effort, and c) behavioural engagement, and whether depression moderates such effects. The present laboratory study investigates these questions by experimentally manipulating the order in which benefit-related vs. cost-related information is presented to high vs. low dysphoria participants in the context of hearing user reviews about a “new” (fake) Wii game “Tornado Ball”. Results indicate that order effects exert differential impacts on memory, judgement and mental imagery processes that differ as a function of dysphoria level.

### **Mental Imagery as a "Motivational Amplifier" for Planned Activities**

**Fritz Renner, University of Freiburg, Germany**

**Fionnuala Murphy, University of Cambridge, United Kingdom**

**Julie Ji, University of Western Australia, Australia**

**Tom Manly, University of Cambridge, United Kingdom**

**Emily Holmes, Uppsala University, Sweden**

Simulating engagement in positive future events can potentially play a role in the treatment of depression. Depression is associated with decreased engagement in potentially rewarding activities and increased avoidance behaviour. Thus, facilitating engagement in rewarding activities is a key treatment target in depression. Mental imagery can increase engagement in planned behaviours, potentially due to its special role in representing emotionally salient experiences. We proposed that mental imagery may act as a ‘motivational amplifier’ by increasing motivational aspects of planned activities such as anticipated reward. In this talk I will present results of an experimental study testing the motivational amplifier hypothesis. Participants (N = 72) selected six activities to complete over the following week, and were randomized to either: a) a single-session Motivational Imagery condition b) an Activity Reminder control condition or c) a No-Reminder control condition. Relative to control groups, the Motivational Imagery group reported higher levels of motivation, anticipated pleasure, and anticipated reward for the planned activities, supporting the motivational amplifier hypothesis. Clinical and research implications for behavioural activation treatment of depression will be discussed in this symposium.

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### **Enhancing Motivation Through Imagery: Functional Imagery Training**

**David Kavanagh, Queensland University of Technology, Australia**

**Jackie Andrade & Jon May, Plymouth University, United Kingdom**

Functional Imagery Training (FIT) is a motivational intervention that is based on the Elaborated Intrusion (EI) Theory of Motivation. EI theory, which now has strong empirical support, emphasises the role of multisensory mental imagery in both functional and dysfunctional motivation. FIT uses the spirit and the typical components of a motivational interview, but encourages participants to develop mental imagery at each step. If they are committed to making a behavior change, they are shown how to use the motivational imagery whenever they need to boost their motivation. Over the initial days, they practise the imagery during a routine behavior. Some applications of FIT also use an app to remind them to practise, guide their imagery, and monitor their behavior change. FIT has now been tested in randomised controlled trials on physical activity, sporting performance, high-energy snacking, diabetes management, weight reduction, alcohol consumption and self-harm, and in both face-to-face and phone delivery. The paper briefly summarises its current empirical status.

### **Imaginator: Results from a Treatment Development Study of an Imagery-Based Intervention Supporting Young People Who Self-Harm**

**Martina Di Simplicio, Imperial College London, United Kingdom**

**Elizabeth Appiah-Kusi, King's College London, United Kingdom**

**Paul Wilkinson, University of Cambridge, United Kingdom**

**Ben Aveyard, Imperial College London, United Kingdom**

**Peter Watson, University of Cambridge, United Kingdom**

**Caroline Meiser-Stedman, Cambridgeshire and Peterborough NHS Foundation Trust, United Kingdom**

**David Kavanagh, Queensland University of Technology, Australia**

**Emily Holmes, Uppsala University, Sweden**

Background. Self-harm behavior has reached a lifetime prevalence of up to 20% in young people internationally, with substantial personal impacts and increased risk of suicidality (Geulayov et al., 2018. *Lancet Psychiatry*, 5: 167–174). Self-harm occurs both in the absence of a

mental disorder and across different mental disorders. Current available psychological interventions can reduce self-harm, but these have long duration, have mostly been tested only in selected populations and do not suit everyone (Iyengar et al., 2018. *Frontiers in Psychiatry*, 9, 583). Moreover, self-harm remains a largely secretive behaviour with young people struggling to access traditional therapies and mental health services (Rowe et al., 2014. *Austr New Zeal J Psychiatry*, 48: 1083–1095).

Hence, there is a need for innovative transdiagnostic short therapies for self-harm, with a specific focus on young people. Blended interventions including a digital tool component have the potential to attract more young people, given their familiarity and expressed preference for app-based instruments, and their strive for autonomy and independence.

**Aims.** The Imaginator study tested the feasibility of a short imagery-based intervention for young people who self-harm, supported by a digital app, and explored effects of the intervention on self-harm reduction over 6 months.

**Methods.** Thirty-eight participants (age 16–25, 7 males) were recruited from the general population (via posters and social media) and from mental health services and randomised to receive Functional Imagery Training (FIT) + Usual Care either immediately or after 3 months delay. FIT consisted of two face-to-face sessions, five phone support calls and a smartphone app (Imaginator app). A randomisation-blind assessor collected outcomes at 3 and 6 months. FIT trains individuals to use adaptive behaviour and to achieve goals via mental imagery practice (May et al., 2015. *Addictive Behaviors*, 44, 29–34). The Imaginator app was co-developed together with young people with lived experience of self-harm and AppShine Ltd.

**Results.** Recruitment rate was 5.42/month and successfully included also young people who had not been in contact with mental health services before. Fifty-seven percent of participants completed the intervention per protocol. Attrition was acceptable for self-harm primary outcomes, but not for secondary outcomes collected online. Twenty-nine participants reported mental imagery prior to self-harm. Functional Imagery Training reduced the number of self-harm episodes with a moderate-to-large effect size from baseline to 3 and 6 months. Young people reported the following advantages of using FIT: private, engaging, motivational, optimism inducing. Use of the Imaginator app was considered helpful, although difficult to remember at times of acute distress.

**Conclusions.** A brief imagery-based intervention targeting self-harm in young people is feasible and well received; larger studies are needed to test its promise as a novel transdiagnostic treatment for self-harm behaviour. Future studies should also elucidate the specific role of the Imaginator app in maintaining self-harm reduction, and identify strategies to optimize and maintain engagement with the digital app over time.

### **Functional Imagery Training for Weight Loss, Quantitative and Qualitative Findings from a Randomized Controlled Trial**

**Linda Solbrig, Jackie Andrade & Tracey Parkin, University of Plymouth, United Kingdom**

**David Kavanagh, Queensland University of Technology, Australia**

**Jon May & Ben Whalley, University of Plymouth, United Kingdom**

**Background:** Most widely available weight loss approaches do little to support motivation for behaviour change long-term. Functional imagery training (FIT) is a novel motivational intervention based on Elaborated Intrusion theory which uses mental imagery to create ‘cravings’ for functional behaviours. FIT trains the habitual use of personalised, affective, goal-directed mental imagery to plan behaviours, anticipate obstacles, and mentally try out solutions from previous successes. It is delivered in the client-centred style of Motivational Interviewing (MI). We tested the impact of FIT on weight loss, compared with time- and contact-matched MI.

**Methods:** A single-blinded, randomised controlled trial. 141 community volunteers with BMI  $\geq 25\text{kg/m}^2$  were randomised to receive FIT or motivational interviewing (MI). All participants received two sessions of their allocated intervention; the first face-to-face (1 h), the second by phone (maximum 45 min). Booster calls  $<15$  min occurred every 2 weeks for 3 months, then once-monthly until 6 months. Maximum contact time was 4h. Participants were assessed at Baseline, at the end of the intervention phase (6 months), and 12 months post-baseline. No lifestyle advice was provided. The experiences of MI and FIT participants who completed the six-month intervention phase were explored at 6m. Open-ended questions covered a range of experiences from comparing previous to current weight-loss attempts and improvements beyond weight-loss. Responses were thematically analysed.

**Findings:** FIT participants ( $N=59$ ) lost 4.11kg, compared to .74 kg in the MI group ( $N=55$ ) at 6 months (weight mean difference (WMD) = 3.37 kg,  $p < .001$ , 95% CI [-5.2, -2.1]). Between-group differences were maintained and increased at month 12: FIT participants lost 6.44kg, MI lost .67kg ( $p < .001$ ). 114 of 121 participants with BMI ( $\text{kg/m}^2$ )  $\geq 25$  completed the participant experience questionnaires. The majority of participants felt more motivated, better supported in their current attempts, appreciated the freedom to choose goals themselves and mentioned improvements outside of weight-loss. A need for continued therapist support, and fear of lapsing into old habits, were expressed only in MI. FIT participants were confident changes could be maintained and described their current weight-loss experience as a mindset-change. Despite receiving no lifestyle advice, all participants felt motivated and supported. Those receiving FIT were confident that they could sustain weight-loss, even in the face of adversity.

**Conclusion:** FIT offers substantial benefits for weight loss and potentially for other health behaviours. Focus on a single but important aspect of behaviour change – motivation – has led to an effective and relatively minimalist intervention. Provision of episodic imagery via FIT provides a highly acceptable, lasting, and adaptable motivational intervention.

### **Repetitive Negative Thinking in Psychopathology: Psycho(physis)logical Causes, Correlates and Consequences**

**Convenor: Philip Spinhoven, Leiden University, the Netherlands**

**Chair: Philip Spinhoven, Leiden University, the Netherlands**

#### **Does Repetitive Negative Thinking Mediate the Effect of Treatment for Depression or Anxiety?**

**Philip Spinhoven, Leiden University, the Netherlands**

**Michelle Moulds, University of New South Wales Sydney, Australia**

**Cristina Ottaviani, Sapienza University of Rome, Italy**

**Edward Watkins, University of Exeter, United Kingdom**

**Andreas Burger, KU Leuven, Belgium**

**Title:** Does repetitive negative thinking mediate the effect of treatment for depression or anxiety?

**Abstract:** It is not clear if treatments for depression or anxiety targeting repetitive negative thinking (RNT: rumination, worry and content-independent perseverative thinking) have a specific effect on RNT resulting in better outcomes than treatments that do not specifically target RNT. We conducted systematic searches of PsycINFO, PubMed, Embase and the Cochrane library for randomized trials in adolescents,

adults and older adults comparing CBT treatments for (previous) depression or anxiety with control groups or with other treatments and reporting outcomes on RNT. In depression inclusion criteria were met by 36 studies with a total of 3307 participants. In anxiety inclusion criteria were met by 46 studies with a total of 3194 participants. At post-test we found both in depression and in anxiety a medium-sized effect of any treatment compared to control groups on RNT. In depression RNT-focused CBT had medium sized and significantly larger effect sizes than other types of treatment, while in anxiety Worry-focused CBT had a medium sized and significantly larger effect size than non-psychological treatments. Both in depression and in anxiety effects on RNT at post-test were strongly associated with the effects on symptom severity. Only in depression was this association specific for RNT-focused CBT. Strikingly, there is a dearth of mediation studies showing that therapy-induced changes in RNT predict subsequent symptom reduction. Further mediation and mechanistic studies to test the predictive value of reductions in RNT following RNT-focused CBT for subsequent depression and anxiety outcomes are urgently called for.

### **Repetitive Thinking and Perinatal Psychological Adjustment**

**Michelle Moulds & Jill Newby, University of New South Wales Sydney, Australia**

**Melissa Black, University of Cambridge, United Kingdom**

**Colette Hirsch, King's College London, United Kingdom**

**Aliza Werner-Seidler, University of New South Wales Sydney, Australia**

Despite the well-established role of repetitive negative thinking (RNT) in the prediction and maintenance of depression and anxiety, only minimal research has investigated RNT in the context of perinatal psychological adjustment. Further, the small number of studies that have been conducted to date have investigated the association between RNT and postnatal depression, but not postnatal anxiety. Accordingly, in an online sample of first-time mothers ( $N = 236$ ) with babies under 12 months, we examined the relationships between rumination, associated maladaptive cognitive processes, infant responsiveness and psychopathology (anxiety, depression), both cross-sectionally and longitudinally. In addition, participants responded to open-ended questions about the content of their RNT, and we examined the themes that emerged. RNT was related to postpartum depression and anxiety (even when controlling for depression). Relationships between RNT and other maladaptive cognitive processes persisted when depression was controlled; however, the association between RNT and infant responsiveness was driven by depression. Regarding content, respondents reported RNT about a range of unexpected emotional responses to becoming a new mother, impact on their sleep and cognitive functioning, as well as the impact on their identity, sense of self, lifestyle, achievements, and ability to function. Advancing our understanding of the role and content of RNT in the perinatal period has scope to inform the development of evidence-based interventions with the goal of both preventing and treating perinatal mental health problems.

### **Can't Get It off My Brain: Brain Signatures of Worry in Generalized Anxiety Disorder**

**Cristina Ottaviani, Sapienza University of Rome, Italy**

**Elena Makovac, King's College London, London, United Kingdom**

**David R. Watson, Frances Meeten & Hugo D. Critchley, Sussex University, United Kingdom**

Generalized anxiety disorder (GAD) is characterized by the core symptom of uncontrollable worry. Individuals with GAD also display a characteristic pattern of reduced heart rate variability (HRV), and index of parasympathetic autonomic function. Given the role of frontolimbic circuitry in the regulation of autonomic arousal, the present study combined neuroimaging techniques with peripheral physiologic monitoring in this population to shed light the hypothesis that core symptoms of worry and autonomic dysregulation in GAD arise from a shared underlying neural mechanism. Patients with GAD ( $n = 16$ ) and sex- and age-matched controls (HC;  $n = 16$ ) underwent structural MRI and resting state functional connectivity before and after induction of worry. The resting state protocol was repeated one year later. In HC, cortical thickness of the left caudal ACC correlated positively with resting HRV. In line with a dimensional view of psychopathology, the induction of worry made HC look similar to those with GAD at baseline in terms of HRV and amygdala functional connectivity. Induction of worry decreased both HRV and prefrontal-amygdala functional connectivity in HC and these changes tracked increases in self-reported levels of worry. Longitudinal shifts in a distinct set of functional connectivity scores were associated with concomitant changes in GAD symptomatology (i.e. levels of anxiety, worry, and autonomic dysregulation) over the course of the year. Results highlight the prognostic value of HRV and emphasize structural and functional neural circuitries underlying the progression of GAD symptomatology.

### **Negative Correlates and Consequences of Rumination: Evidence from Clinical Trials**

**Edward Watkins, University of Exeter, United Kingdom**

RNT (worry and rumination) has been identified as a transdiagnostic factor involved in the onset and maintenance of depression and anxiety. Targeting rumination therefore has potential to improve the efficacy of interventions, especially for addressing co-morbidity. Rumination has also been implicated in negative consequences for physical health, both through direct effects on physiology and through impact on lifestyle (e.g., diet). This presentation will summarise findings from clinical trials in which cognitive-behavioural therapy and behavioural activation have been adapted to target rumination and show benefits for treating and preventing anxiety and depression. These trials include treatment of residual and acute depression in adults, with evidence that adding a rumination-focused CBT intervention to antidepressant medication outperforms antidepressant medication alone (Watkins et al., 2011) and that group rumination-focused CBT outperformed group CBT in treating depression, especially for patients with co-morbid anxiety (Hvenegaard et al., 2019). Prevention trials have found that digital versions of rumination-focused CBT are effective at preventing depression and anxiety in at risk high-ruminating young adults (Topper et al., 2017) and undergraduates (Cook, Mostazir & Watkins, in press). These results confirm the transdiagnostic consequences of rumination. Treatment work in adolescents with a history of depression has indicated that rumination-focused treatment changes patterns of brain activation relative to assessment only, consistent with the involvement of default mode network in rumination. The efficacy of these guided and unguided internet treatments has suggested the value of an app targeting rumination in young people, which is under development within the Horizon2020 ECoWeB trial. A recent trial (FP7 funded) MoodFOOD trial investigated the role of nutritional strategies in preventing depression in overweight adults across four countries (Bot et al., 2019). These interventions included a behavioural change intervention that built on rumination-focused approaches and included elements to change dietary behavior. Findings from this trial will be reviewed including evidence that rumination is associated with unhealthy diet in overweight people.

## **Effects of Noninvasive Vagus Nerve Stimulation on Perseveration Cognition in Chronic Worriers**

**Andreas Burger, Katholieke Universiteit Leuven, Belgium**

**Willem van der Does, Leiden University, the Netherlands**

**Julian Thayer, Ohio State University, USA**

**Jos Brosschot & Bart Verkuil, Leiden University, the Netherlands**

Chronic worrying is strongly associated with decreased inhibitory control. This is reflected in the central nervous system by reduced connectivity of the prefrontal cortex and the amygdala, as well as in the autonomic nervous system by reduced heart rate variability. Previous studies have indicated that stimulation of the vagus nerve may affect both these pathways, thereby potentially affecting worry behavior as well. We conducted an experimental study to test whether transcutaneous electrical stimulation of the auricular branch of the vagus nerve (tVNS) can decrease negative thought intrusions as an index of worry behavior. Specifically, ninety-seven chronic worriers were randomly allocated to receive electrical stimulation at the concha of the ear (tVNS) or at the earlobe (sham stimulation) while negative thought intrusions were assessed during a Breathing Focus Task, which consists of a pre-worry period, a worry induction, and a post-worry period. Participants who received tVNS reported significantly fewer negative thought intrusions during the pre-worry period, but the effects of tVNS after the worry induction were mixed. An exploratory analysis indicated that participants in the tVNS condition were more likely to report negative thought intrusions shortly after the worry induction, but became less likely to do so as the post-worry period went on. These findings provide preliminary evidence that vagus nerve activity indeed plays a causal role in the occurrence of worrisome thoughts and confirm the need for additional research on this topic.

## **Symposia 4: Behavioural Medicine**

### **Innovative Cognitive Behavioral Therapy Approaches in Somatic Conditions**

**Convenor: Andrea Evers, Leiden University, the Netherlands**

**Chair: Andrea Evers, Leiden University, the Netherlands**

**Discussant: Andrea Evers, Leiden University, the Netherlands**

### **Using an Empirical Approach to Develop a Cognitive Behaviourally Informed Physiotherapy Treatment for Chronic Dizziness**

**Rona Moss-Morris, David Herdman, Sam Norton & Marousa Pavlou, King's College London, United Kingdom**

**Louisa Murdin, Guy's & St Thomas' NHS Foundation Trust, United Kingdom**

**Background:**

Chronic dizziness is not only common and distressing but is typically poorly managed in general medical settings. Current treatment is almost entirely based on physiotherapy exercises. However, there is significant psychological comorbidity that is associated with the outcome. The aim of this study was to explore psychosocial predictors of dizziness handicap with the view to develop a cognitive behavioural therapy (CBT) informed physiotherapy approach to treatment.

**Methods:**

Patients who were on the waiting list of a tertiary neuro-otology clinic were recruited and completed questionnaires before and three months after their initial consultation and diagnosis. The questionnaires assessed handicap, distress, illness perceptions, symptom cognitions, behaviours, psychological vulnerability and beliefs about emotions. All patients were clinically assessed and underwent comprehensive audio-vestibular investigations.

**Results:**

Among 135 patients (mean [SD] age, 54.23 [17.53] years; 98 [73%] female) who responded to the questionnaire survey at follow up, the majority were diagnosed with a neurotological condition. There was no difference in handicap or psychological profile across diagnoses or audio-vestibular test findings. Although there was a significant improvement in handicap over the three months, baseline handicap was strongly correlated with handicap at 3 months follow up ( $r=.83$ ,  $p<.01$ ). Dizziness handicap at follow-up was associated with baseline anxiety, depression, symptom cognitions, all-or-nothing and illness perceptions relating to belief that the illness is chronic, has negative consequences and is emotionally burdensome. Depression, anxiety, all-or-nothing behaviour and chronic illness beliefs continued to predict dizziness handicap even after controlling for baseline handicap.

**Conclusions:**

Patients with vertigo and dizziness, regardless of diagnosis, frequently endorse negative illness perceptions and unhelpful cognitive and behavioural responses to symptoms which are associated with self-perceived disability. Discussion will focus on how these data are being combined with a systematic review of 64 studies of psychosocial correlates of dizziness to inform an integrated CBT/physiotherapy intervention.

### **A CBT-Based Transdiagnostic Approach for Persistent Physical Symptoms: Results of a Randomised Controlled Trial**

**Trudie Chalder, Meenal Patel, Kirsty James, Matthew Hotopf, Philipp Frank, Katie Watts, Rona Moss-Morris & Sanbine Landau, King's College London, United Kingdom**

**Background:**

Cognitive behavioural therapy (CBT) has demonstrated both short- and long-term efficacy with small to medium effect sizes for people with persistent physical symptoms (PPS), also known as medically unexplained symptoms (MUS). A transdiagnostic approach assumes that similar psychological processes such as avoidance, unhelpful beliefs and attentional processes maintain symptoms and disability across conditions.

**Methods/Design:**

A randomised controlled trial (RCT) has been conducted to evaluate the efficacy and cost-effectiveness of transdiagnostic cognitive behaviour therapy for PPS. Participants with PPS were recruited from secondary care clinics and randomised to CBT plus standard medical care (SMC) or SMC alone. 8 CBT sessions were delivered by a qualified therapist over a period of 20 weeks. The primary outcome of the work and social adjustment scale was assessed at 9, 20, 40 and 52 weeks post randomisation. Secondary outcomes included mood, symptom severity and clinical global impression at 9, 20, 40 and 52 weeks.

**Results:**

These are currently being analysed blind by the trial statistician and will be presented at the conference.

#### Discussion:

This trial will evaluate the efficacy and cost-effectiveness of a transdiagnostic approach in addition to SMC versus SMC alone for patients with PPS. It will also provide valuable information about potential healthcare pathways for patients with PPS within the National Health Service (NHS) in the UK.

#### **Pharmacological Conditioning in the Treatment of Rheumatoid Arthritis**

**Meriem Manaï, Henriët van Middendorp & Dieuwke S. Veldhuijzen, Leiden University, the Netherlands**

**Joy A. van der Pol & Tom W.J. Huiznga, Leiden University Medical Center, the Netherlands**

**Andrea W.M. Evers, Leiden University, the Netherlands**

**Introduction.** In pharmacological conditioning associations are formed between the effects of medication and contextual factors related to the medication. Pharmacological conditioning with placebo medication can result in comparable treatment effects and reduced side effects compared to regular treatment in various clinical populations, and may be applied to achieve enhanced drug effects. In the current study, pharmacological conditioning is applied to achieve enhanced treatment effects in patients with recent-onset rheumatoid arthritis (RA). The results from this study broaden the knowledge on the potential of pharmacological conditioning and provide a potential innovative treatment option to optimize long-term pharmacological treatment effectiveness for patients with inflammatory conditions, such as recent-onset RA. **Methods.** A multicenter randomized controlled clinical trial is conducted in patients with recent-onset RA. Patients start on standardized pharmacological treatment of 16 weeks, which consists of methotrexate (MTX) 15mg/week and a tapered schedule of prednisone 60mg or 30mg. After 4 months, patients in clinical remission (based on the rheumatologist's opinion and a targeted score below 1.6 on a 44-joint disease activity score [DAS44]) are randomized to 1 of 2 groups: (1) the Control group (C), which continues with a standardized treatment schedule of MTX 15mg/week or (2) the Pharmacological Conditioning group (PC), which receives an MTX treatment schedule in alternating high and low dosages. In case of persistent clinical remission after 8 months, treatment is tapered and discontinued linearly for the C group and variably for the PC group. Both groups receive the same cumulative amount of MTX during each period. A logistic regression analysis compares the proportion of patients with drug-free clinical remission after 12 months between the C group and the PC group. Secondary outcome measures include clinical functioning, laboratory assessments, and self-reported measures after each 4-month period up to 18 months after study start.

**Results.** Data collection for this study has been finalized and data analysis is currently in progress.

**Discussion.** The results from this study broaden the knowledge on the potential of pharmacological conditioning. Additionally, if the immune system can be successfully conditioned through pharmacological conditioning, this would be of conceptual relevance, providing a potential innovative psychological treatment option to optimize long-term pharmacological treatment effectiveness for patients with inflammatory conditions, such as recent-onset RA.

#### **An E-Health Psychological Intervention to Optimize Health Outcomes in Response to Immunological and Psychophysiological Challenges: A Randomized Controlled Trial**

**Lemmy Schakel, Dieuwke Veldhuijzen & Henriët van Middendorp, Leiden University, the Netherlands**

**Corine Prins, Anne Driittij & Frank Vrieling, Department of Infectious Diseases, Leiden University Medical Centre, Leiden, the Netherlands**

**Andrea Evers, Leiden University, the Netherlands**

Psychological interventions have shown promise in promoting health outcomes. Recently, internet-based cognitive behavioral therapy (e-health CBT) and serious gaming interventions have been suggested to enhance accessibility and engagement in such interventions. Few studies, however, have investigated their effectiveness in the context of simulated real-life challenges. We performed a randomized trial to examine the effectivity of an online e-health CBT combined with serious gaming intervention in optimizing self-reported psychophysiological and immunological health outcomes in response to psychophysiological as well as in vitro and in vivo immune-related challenges. Sixty-nine healthy males were randomly assigned to the intervention condition, receiving online e-health CBT combined with serious gaming for six weeks, or the control condition, receiving no intervention. Self-reported vitality and other self-reported, psychophysiological and immunological outcomes were assessed in response to various challenges including a BCG-vaccination evoking pro-inflammatory responses, one and four weeks after the intervention period. Although the intervention did not affect vitality associated parameters, self-reported sleep problems and bodily sensations were lower directly after the intervention compared to controls. Furthermore, well-being was higher in the intervention group after the psychophysiological challenges. Although no significant group differences were found for the psychophysiological and immunological outcomes, the data provided preliminary support for optimized outcomes on heart rate variables as well as increased IgG antibody responses at follow-up time-points. Differential chemokine outcomes were observed at the end of the test day in the intervention compared to the control condition. The present randomized controlled trial provides some support for optimizing health outcomes with an online e-health CBT combined with serious gaming intervention. Future research should replicate and further extend the present findings by consistently including challenges and a wide range of immune parameters into the study design.

#### **Lessons Learned in Implementing Novel Cognitive-Behavioural Interventions Across Diverse Clinical Populations**

**Convenor: Guillaume Foldes-Busque, Université Laval, Canada**

**Chair: Guillaume Foldes-Busque, Université Laval, Canada**

**Discussant: Allison Harvey, University of California, USA**

#### **Efficacy and Implementation in Routine Cancer Care of a Stepped Care Approach to Offer Cognitive-Behavioral Therapy for Insomnia**

**Josée Savard, Hans Ivers, Aude Caplette-Gingras, Charles Morin, Marie-Pierre Gagnon, Lynda Bélanger, Université Laval, Canada**  
**Stéphane Bouchard, Université du Québec en Outaouais, Canada**

**Guy Lacroix, Université Laval, Canada**

Cognitive-behavioral therapy is the recommended first-line treatment for cancer-related insomnia (Howell et al., 2014). The efficacy of cognitive-behavioral therapy for insomnia (CBT-I) has been supported by several randomized controlled trials (RCT) conducted specifically in the context of cancer (Johnson et al., 2016). However, its accessibility is very limited in routine cancer care as there is a lack of qualified

practitioners to administer it and, even when there are such trained professionals, they are insufficient to meet all needs. Our prior research efforts to develop treatment formats that would be more easily implemented in routine care revealed that a self-administered CBT-I (video-based) produced larger effects than a no treatment control condition, but smaller effects on some variables than a professionally-administered CBT-I (PCBT-I; Savard et al., 2014; 2016). This led us to conclude that a stepped care approach, beginning with a self-administered CBT-I and followed, if needed, by a more intensive intervention would probably be more appropriate. In this presentation, results of a subsequent non-inferiority RCT comparing the efficacy of a stepped care approach to that of standard PCBT-I will be described. A total of 177 cancer patients were randomized to: 1) standard PCBT-I (6 face-to-face CBT-I sessions; n=59) or stepped care CBT-I (n=118). Overall, 86.3% were women and 76.7% had been treated for breast cancer. In the stepped care group, patients with an Insomnia Severity Index (ISI) score of 8 or greater but lower than 15 first received a web-based CBT-I (n=65), while those with an ISI score greater than 15 received 6 face-to-face CBT-I sessions (n=53). In both cases, patients could receive up to 3 booster sessions of CBT-I if they still had insomnia symptoms following this first treatment step (ISI score of 8 or greater). Results indicated that the stepped care group had an ISI score reduction from pre- to post-treatment (-8.17) that was not significantly inferior to that of the standard PCBT-I (-9.24). This presentation will also summarize the results of a qualitative study which aimed at assessing, among administrators, health care providers and patients, barriers to and facilitators of implementing our stepped care CBT-I in cancer clinics. Six focus groups of 4 to 9 participants each were conducted with administrators and cancer care providers (5 different hospitals) and one was completed with cancer patients who had received stepped care CBT-I. Findings indicated a strong recognition that insomnia needs to be better treated in routine care and a high acceptability of CBT-I. Several barriers were also raised including the limited resources to screen for insomnia and offer the booster CBT-I sessions, some practical barriers (e.g., patients with no access to Internet), and the need to adapt the treatment protocol in the presence of psychological comorbidity. An implementation study is underway to evaluate uptake rates of our stepped care CBT-I in these same clinical settings, ascertain the clinicians' fidelity to the treatment protocol provided as part of stepped care CBT-I and evaluate its effects on patients' sleep and other variables (e.g., quality of life).

### **Effectiveness of Group Psychoeducation for Bipolar Disorder in Clinical Practice: Outcomes at One Year Follow-Up and Factors Associated with Relapse**

**Martin Provencher, Université Laval, Canada**

Various efficacious psychosocial interventions for Bipolar Disorder (BD) share common elements, with psychoeducation being a main component. Treatment guidelines for BD recommend psychoeducation, especially when delivered in brief, cost-effective formats. Its format has several implications for the feasibility of its dissemination in the health care system. The Life Goals Program (LGP) is an evidence-based, cost-effective psychoeducational treatment for BD. Despite its demonstrated benefits for patients and the healthcare system, most patients do not have access to this type of treatment. The goal of this study is to examine the dissemination of the LGP and its effectiveness in three community mental health care centers in Quebec, Canada. A sample of 15 healthcare service providers received thorough training in the delivery of the LGP and delivered the treatment to 76 patients with BD. The treatment consisted of six 90-minute sessions described in the treatment manual with session six being repeated with a family member attending. Treatment integrity and clinical effectiveness were assessed with objective measures. The intervention was successfully implemented, with high rates of treatment fidelity and positive impacts on clinical outcomes at post-treatment and one-year follow-up. Repeated measures ANOVAs show that patients had statistically significant gains in knowledge about BD, increased emotional and rational acceptance of the illness, reductions in depressive symptoms, and improvements in behavioral activation and medication behaviors. Treatment effect sizes were moderate to large. Furthermore, although over 60% of patients were hospitalized during the year prior to participation in the LGP, less than 10% were hospitalized during the year following the end of treatment. In conclusion, results show that the LGP can be successfully implemented in routine mental health settings given the brief format of the intervention, its proven cost effectiveness, and its less extensive training requirements.

### **Efficacy of an Online Multidimensional CBT Targeting PTSD, Depression and Insomnia After a Disaster**

**Geneviève Belleville, Marie-Christine Ouellet, Jessica Lebel, Vera Békés & Charles Morin, Université Laval, Canada**

**Stéphane Bouchard, Université du Québec en Outaouais, Canada**

**Stéphane Guay, Université de Montréal, Canada**

**Nicolas Bergeron, Médecins du Monde, Canada**

**Background.** The wildfires on May 1, 2016 in Fort McMurray, Alberta (Canada), destroyed approximately 2,400 homes and buildings and led to massive displacement of approximately 88,000 people. Many individuals faced direct or potential threat to their life or health, or significant losses. Alberta Health Services estimated in August 2016 that mental health staff in the city had received 20,000 referrals in three months, compared to 1,200 referrals each year. This study reports on the preliminary results of a randomized controlled study (RCT) assessing the efficacy of an online self-help intervention targeting post-traumatic resilience on specific symptoms (post-traumatic stress disorder [PTSD], insomnia, depression) among Fort McMurray residents.

**Participants and Procedure.** A longitudinal study included four assessments with online questionnaires (T1 to T4), each separated by a period of six months. After completion of T2 (pre-treatment) in May 2018, participants with significant post-traumatic stress, depressive or insomnia symptoms (n = 136) were randomised either to a treatment condition (n = 69) or to a waitlist control condition (n = 67).

Participants were on average 45 years old, and mostly women (76%). Four percent identified as members of a First Nation. Age, gender, membership in a First Nation and pre-treatment post-traumatic stress, depression and insomnia symptom severity did not differ between the treatment and waitlist conditions (all p > .05). Participants completed T3 (post-treatment) in November 2018. Attrition rate was 19% (n = 13) in the treatment condition and 16% (n = 11) in the waitlist condition.

**Treatment Description.** The treatment is a therapist-assisted self-help online cognitive-behaviour therapy focusing on post-traumatic stress, sleep and mood. It includes 12 sessions of evidence-based psychotherapeutic components, such as psychoeducation about PTSD, sleep and depression; prolonged exposure to avoided situations and memories; sleep management strategies (restriction of time in bed, stimulus control, sleep hygiene education); behavioural activation; relaxation and mindfulness exercises; problem-solving strategies; and cognitive restructuring. A small portion of material was unlocked each week, and access to one module was accessible after the completion of a previous one. Supervised graduate psychology students provided brief regular weekly contacts for 12 weeks by videochat or phone, according to the participant's preference. Access to the online material was unlimited in time.

**Results.** Participants in the treatment group completed an average of 5 sessions (+/- 5.26) and 14 completed the entire 12-session treatment. Mixed model ANOVAs revealed significant Assessment Time X Treatment Condition interactions on post-traumatic stress, depression and insomnia symptom severity, showing improvements of symptoms in the treatment condition.

**Conclusions.** These results demonstrate the effectiveness of the RESILIENT online treatment platform to decrease post-traumatic stress, insomnia and depression symptoms in evacuees from the 2016 Fort McMurray, Alberta wildfires. This computerized psychotherapeutic tool

was successful to provide access to specialized evidence-based mental health care to promote resilience and mental health after a disaster in a remote population.

### **Sequenced Psychological and Medication Therapies for Insomnia Disorder**

**Charles Morin, Université Laval, Canada**

**Jack Edinger, National Jewish Health, USA**

**Andrew Krystal, University of California, USA**

**Simon Beaulieu-Bonneau, Hans Ivers, Bernard Guay & Lynda Bélanger, Université Laval, Canada**

**Ann Cartwright, National Jewish Health, USA**

**Background:** Despite evidence of efficacious psychological and pharmacological therapies for insomnia, there is little evidence as to what should be our first treatment and how best to proceed when initial treatment fails. This study evaluated the efficacy of four treatment sequences using psychological and pharmacological therapies and examined the moderating effect of psychiatric (mood and anxiety) disorders on insomnia outcomes.

**Methods:** Patients were 211 adults (132 women; M age = 45.6±14.9 years old) with a chronic insomnia disorder, including 71 patients with a comorbid anxiety or mood disorder. After first-stage therapy involving either behavioral therapy (BT; n = 104) or medication (zolpidem; n = 107), patients not achieving remission received a second treatment involving either medication (zolpidem or trazodone) or psychological therapy (BT or cognitive therapy-CT). The primary endpoints were the treatment response and remission rates, defined by scores on the Insomnia Severity Index.

**Results:** Intent-to-treat analyses showed that first-stage therapy with BT or Zol produced equivalent responders (BT= 45.5%, Zol = 49.7%) and remitters (BT= 38.03%, Zol = 30.3%). Second-stage therapy produced significant increases in responders for the two conditions starting with BT (BT+Zol = 40.6% to 62.7%; BT+CT = 50.1% to 68.2%), but no significant change following Zol treatment. Significant increase in percentage of remitters were also observed with two second-stage therapy sequences (BT+Zol = 38.1% to 55.9%; Zol+Traz = 31.4% to 49.4%). Although response/remission rates were lower among patients with psychiatric comorbidity, treatment sequences that involved BT followed by CT or zolpidem followed by trazodone yielded better outcomes for patients with comorbid psychiatric disorders.

**Conclusions:** Sequential therapy is an effective strategy to optimize insomnia management. Adding a second treatment modality produces an added value for those who fail to respond to initial therapies. Patients with insomnia comorbid with an anxiety or mood disorder may also benefit from therapies (cognitive therapy, antidepressant) that target mood in addition to sleep.

### **Cognitive Behavioral Therapy for Insomnia: At the Crossroads Between the Basic and Beyond**

**Convenor: Jaap Lancee, University of Amsterdam, the Netherlands**

**Chair: Jaap Lancee, University of Amsterdam, the Netherlands**

### **Cognitive Behavioral Therapy for Insomnia: A Meta-Analysis of Short-Term and Long-Term Effects in Controlled Studies**

**Annemieke van Straten, University of Amsterdam, the Netherlands**

**Tanja van der Zweerde, Vrije Universiteit Amsterdam (VU), the Netherlands**

**Jaap Lancee, Universiteit Amsterdam (UvA), the Netherlands**

Insomnia is an important public health issue due to its high prevalence, its impact on daily life of patients, and high societal costs caused by reduced work productivity. Guidelines refer to cognitive behavioral therapy as the preferred treatment. To date, however, it is still unclear whether or not there are specific subgroups of patients that benefit more than others of CBTi. Furthermore, the long-term effects have not been examined systematically yet. For these reasons we performed 2 meta-analyses: one into the overall effectiveness of CBTi in which we also examined subgroups (87 studies included); and one in which we examined the effects on the long-term (up to 12 months) in studies with non-treated controls (29 studies included).

The results of the first meta-analyses showed large and significant post-test effects on different sleep estimates (e.g. d=0.98 for the insomnia severity index, d=0.71 on sleep efficiency, d=0.63 for wake after sleep onset). The results were quite robust i.e. they were similar for people in different age groups, for people with or without co-morbidity, for people receiving full CBTi or only elements). However, there were indications that therapies with less than 4 sessions were slightly less effective than therapies that lasted longer and that online therapies were slightly less effective than face-to-face ones. The second meta-analyses included 29 studies with at least one follow-up but there were only 8 studies with a 12 months follow-up and no studies with an even longer follow-up. Although the number of studies is limited the results showed that CBTi produces significant effects on the longer term with more moderate effect sizes (e.g. 12 months effects of insomnia severity index d=0.25; of sleep onset latency d=0.40, of sleep efficiency d=0.35).

We conclude that CBT for insomnia is effective both on the short-term and the long-term. The post-test effects of CBTi are quite robust and there are no indications that certain subgroups of patients benefit more than others. More studies are needed on long-term effects. Those studies that are done show that the long-term effects are moderate. We need to determine how long-term effects can be boosted.

### **Effects of Online CBT for Insomnia in General Practice in the Netherlands**

**Tanja van der Zweerde, Vrije Universiteit, the Netherlands**

**Jaap Lancee, Universiteit van Amsterdam, the Netherlands**

**Pauline Slottje, VUMC, the Netherlands**

**Judith Bosmans, Vrije Universiteit, the Netherlands**

**Eus van Someren, Netherlands Neuroscience Institute, the Netherlands**

**Annemieke van Straten, Vrije Universiteit, the Netherlands**

**Importance.** Cognitive behavioral therapy for insomnia (CBT-I) is an effective intervention for patients suffering from insomnia.

International guidelines recommend CBT-I as the first line of treatment for insomnia. The problem is that patients seeking help from general practitioners do not usually receive CBT-I. To bridge this gap, guided internet-delivered CBT-I is an interesting option.

**Objective.** To determine short (8 weeks) and longer-term (6 months and 12 months) effects of internet-delivered CBT-I on insomnia severity experienced by patients in general practice.

**Design.** This randomized clinical trial compared internet-delivered CBT for insomnia (I-CBT-I) to care-as-usual (CAU) from pre-assessment to six-month follow-up.

Setting. Patients with clinical insomnia symptoms (n=134) were recruited in general practices between October 2015 and April 2018 in the Netherlands. Assessments took place at 0 (baseline), 8 (post-treatment), 26 and 52 (follow-up) weeks.

Participants. Adults (18+) suffering from insomnia. Of the 134 patients included, 87(65%) were female, mean (SD) age was 50 (16), and 87% were born in the Netherlands. Participants were randomized to I-Sleep (n=69) or CAU (n=65).

Intervention. I-Sleep is a 5-lesson I-CBT-I. The treatment is guided online by psychiatric nurses/psychologists working in general practice.

Main outcome and measure. The primary outcome was self-reported insomnia severity. Secondary outcomes were sleep diary indices, depression and anxiety symptoms, daytime consequences of insomnia, and work and social adjustment.

Results. On insomnia severity, I-Sleep significantly outperformed CAU at post-test (post-test Cohen's  $d = 1.64$ ; 95%CI: 1.15-2.14) and 6-month follow-up (6m FU  $d = 0.95$ ; 95%CI: 0.46-1.45). Secondary analysis showed that I-Sleep was also effective on several sleep diary variables, but not on sleep onset latency, total sleep time, sleep quality, daytime consequences, anxiety, depression, fatigue, or Work and Social Adjustment Scale items.

Conclusions and relevance. Guided I-CBT-I can be implemented in general care and is effective. Internet-delivered CBT-I supports general practitioners in adhering to best-practices guidelines and offering optimal care.

### **CBT for Insomnia: Effects on Depression and Mechanisms of Change**

**Jaap Lancee, University of Amsterdam, the Netherlands**

With 60-80% of the people with depression having insomnia complaints there is a clear association between the two. There is evidence that poor sleep may be an important factor in the development and maintenance of depression. In this vein, a number of studies now report on the efficacy of CBT for insomnia (CBTI) for depressive symptoms. In the current talk, I will present the effects of CBTI on depression and focus on a recently published randomized controlled trial. Furthermore, I will show with 'Network Intervention Analysis' that it is most likely that CBTI changes the depression symptoms through its effects on insomnia symptoms. Lastly, I will report on a case series where single-component sleep restriction treatment was administered to people with insomnia and depressive symptoms. In this case series clinical relevant treatment gains were observed. This study opens up new avenues for the use of sleep restriction treatment as a vehicle for studying the relationship between insomnia and depression. Furthermore, it supports studying sleep restriction treatment as a potential add-on treatment.

### **CBT for Insomnia Comorbid with Obstructive Sleep Apnoea: A Randomised Controlled Trial**

**Megan Crawford, Swansea University, United Kingdom**

**Jason Ong, Northwestern University, USA**

**James Wyatt & Lou Fogg, Rush University Medical Center, USA**

**Arlener Turner & Spencer Dawson, Northwestern University, USA**

**Clete Kushida, Stanford University, USA**

**Jack Edinger, National Jewish Hospital, USA**

Introduction: The purpose of this study was to evaluate the efficacy of CBT for insomnia (CBT-I) in patients with comorbid sleep apnoea.

Methods: One-hundred and seventeen adults (53.85% female, mean age=50.00) with insomnia and comorbid sleep apnoea (COMISA) were randomised to receive one of three treatment models using a partial factorial design: CBT-I followed by Continuous Positive Airway Pressure (CPAP, Model A), CBT-I concurrent with CPAP (Model B), and CPAP only (Model C). CBT-I was delivered in four individual sessions focusing on maladaptive, sleep-related behaviours and cognitions. Primary outcomes were CPAP adherence across the first 90 days of use and global measures of insomnia and sleep quality (Insomnia Severity Index; ISI, Pittsburgh Sleep Quality Index; PSQI). For analysis, Model A and B were combined, and planned comparisons were conducted to compare those who received CPAP+CBT-I (Model A and B) versus CPAP only (Model C) using Wilcoxon signed ranks test and linear mixed models.

Results: No significant differences were found between the CBT-I & CPAP groups versus CPAP only on percent of nights CPAP was used (Median=52.20% vs Median=75.00%,  $p = .8430$ ), minutes used per night (Median=235.14 vs Median=227.30,  $p = .8430$ ) or percentage of participants who were regular users of CPAP based on published criteria (36.71% vs 42.11%,  $p = .57$ ). For mild OSA ( $AHI \geq 5$  and  $< 15$ ), the CPAP & CBT-I groups used CPAP on a greater percentage of nights compared to the CPAP only group (Median=34.40% vs Median=9.30%), though this was not statistically significant ( $p = .1134$ ). A significant main effect was found for improvement in the ISI ( $p < .0001$ ) and PSQI ( $p < .0001$ ) but the group x assessment interaction was not significant for ISI ( $p = .1139$ ) or PSQI ( $p = .4619$ ).

Conclusion: These findings indicate that patients with COMISA show improvements in self-reported global measures of insomnia and sleep quality across all treatment models. Although no significant differences were found between those who received CBT-I versus those who did not in the overall sample, there were indications that CBT-I might have benefits for CPAP adherence among those with mild OSA.

### **A Transdiagnostic Sleep and Circadian Treatment to Improve Severe Mental Illness Outcomes in a Community Setting**

**Allison Harvey, University of California, USA**

Background: Despite advances in treatment, severe mental illness (SMI) remains common, chronic and difficult to treat. Sleep and circadian dysfunctions are among the most prominent correlates of SMI, yet have been minimally studied in ways that reflect the complexity of the sleep problems experienced by people with SMI. Prior treatment studies have been disorder-focused—they have treated a specific sleep problem (e.g., insomnia) in a specific diagnostic group (e.g., depression). However, real life sleep and circadian problems are not so neatly categorized, particularly in SMI where features of insomnia overlap with hypersomnia, delayed sleep phase and irregular sleep-wake schedules. Accordingly, the aim of this study was to test the hypothesis that a Transdiagnostic Intervention for Sleep and Circadian Dysfunction (TranS-C) will improve functional impairment, disorder-focused symptoms and sleep and circadian functioning. Participants across DSM diagnoses and across common sleep and circadian problems were eligible. Prior to this study, the elements of TranS-C are known to be efficacious across SMI in research settings with research-based providers. The next step taken in this study was to test TranS-C in a community mental health center (CMHC). CMHCs are publicly funded, under resourced and provide treatment to poor and underserved community members.

Method/design: 120 adults diagnosed with SMI and sleep and circadian dysfunction within CMHCs were randomly allocated to TranS-C or 6-months of Usual Care followed by Delayed Treatment with TranS-C (UC-DT). TranS-C is modularized and delivered across eight 50-minute, weekly, individual sessions. All participants were assessed before and immediately following treatment and again 6 months later.

Results: The preliminary analyses suggest that TranS-C significantly improves functional impairment, disorder-specific symptoms and sleep and circadian functioning, relative to UC-DT.



Conclusions: This trial tests an important and understudied mechanism—dysregulated sleep and circadian rhythms—in SMI and a novel transdiagnostic treatment approach within a community setting. The results will be discussed in terms of bridging the gap between research and practice.

### **Cognitions and Behaviours in Paediatric Chronic Illness**

**Convenor: Maria Loades, University of Bath, United Kingdom**

**Chair: Maria Loades, University of Bath, United Kingdom**

**Discussant: Trudie Chalder, King's College London, United Kingdom**

#### **How do the Cognitions and Behaviours of Adolescents with Chronic Fatigue Syndrome (CFS) with Co-Morbid Depression Compare to Those Who Are Not Depressed? Implications for CBT**

**Maria Loades, University of Bath, United Kingdom**

**Esther Crawley & David Kessler, University of Bristol, United Kingdom**

**Paul Stallard, University of Bath, United Kingdom**

**Introduction:** Approximately one in three adolescents with CFS/ME also have depression. CBT is an evidence-based treatment for both CFS/ME and depression (NICE, 2007; NICE 2015). However, there are differences in the CBT maintenance model of depression and the CBT maintenance model of fatigue, and consequently, there are differences in the cognitive and behavioural techniques utilised and in what order. CBT for depression (CBT-D) is based on the Beckian model of depression, which purports that global, stable and internal negative cognitions about the self, others/world, and the future, interact with behavioural patterns of withdrawal to fuel and maintain low mood (Beck, 1979). Behavioural activation, combined with recognising and challenging negative thoughts, have been shown to be at least moderately effective in adolescents. CBT for fatigue (CBT-F) assumes that fatigue, once triggered, is maintained by unhelpful behavioural responses, which tend to either be that of excessive rest, or more commonly, adopting a ‘boom-and-bust’ approach, doing lots on one day and then very little the next. It is also maintained by unhelpful cognitions, which are specifically about the physical illness and its sequelae, such as ‘My fatigue will get worse if I do more’. CBT-F aims to stabilise activity levels before gradually increasing them, and to use behavioural experiments to test out the specific thoughts about fatigue. Whilst there are some commonalities between CBT-D and CBT-F, there are also a number of important differences (Loades & Chalder, 2017). What we don’t know is how best to understand and help those young people who present with both CFS/ME and low mood.

**Method:** This cross-sectional study was nested within the baseline of the FITNET-NHS trial. Participants were recruited via primary care and paediatric settings.

**Inclusion criteria:** Adolescents age 11-17 with a diagnosis of CFS/ME made by a local paediatrician, with no access to a local specialist CFS/ME service.

**Measures & Procedure:** Participants completed measures of negative cognitive errors (CNCEQ-R), cognitive and behavioural responses to symptoms (CBRQ) and depressive symptoms (RCADS depression subscale).

**Results:** (Data collection is currently ongoing. anticipated N = 200 by July 2019). Preliminary data: N = 179, mean age 14.2 (S.D. 1.68). RCADS depression subscale score was not significantly correlated with any of the CNCEQ-R subscales. RCADS depression score was also not significantly correlated with any of the CBRQ subscales. Using a raw score cut-off of >14 on the RCADS depression subscale, those with probable depression did not differ significantly on CNCEQ scores from those who were not probably depressed, nor did they differ significantly on the CBRQ.

**Discussion:** These preliminary findings suggest that young people with CFS/ME who score highly on a depression questionnaire do not necessarily report the negative cognitive errors that are predicted by the cognitive model of depression. They also do not report a significantly different pattern of responses to their symptoms compared to those with CFS/ME who score within the normal range on the depression questionnaire. This means that cognitive factors may not necessarily be maintaining the low mood, which has implications for CBT.

#### **How Does the Development of Chronic Fatigue Impact Cognitive Function? Results from an Acute Epstein-Barr Virus Infected Adolescent Cohort**

**Maria Pedersen, Akershus University, Norway**

**Tarjei Tørre Asprusten & Merete Glenne Øie, University of Oslo, Norway**

**Truls Michael Leegaard, Akershus University Hospital, Norway**

**Trygve Tjåe, Først Medical Laboratory, Norway**

**Vegard Bruun Bratholm Wyller, Akershus University Hospital, Norway**

**Introduction.** Acute Epstein-Barr virus (EBV) infection is a trigger of chronic fatigue and Chronic Fatigue Syndrome (CFS). It has been shown that adolescents with CFS have cognitive impairments, still good verbal recognition abilities were found to be an independent risk factor for developing chronic fatigue in this current cohort. This study investigated cognitive function with regards to chronic fatigue developed after acute EBV infections in adolescents.

**Materials and methods.** A total of 200 adolescents (12-20 years old) with acute EBV infection were assessed during acute infection and after 6 months. At both time-points all participants completed a neurocognitive test battery measuring processing speed, working memory, cognitive inhibition, cognitive flexibility, verbal learning, verbal memory and an estimate of intelligence quotient (from matrix reasoning and understanding of words), and questionnaires addressing depression symptoms, anxiety traits, fatigue and sleep problems. The participants were divided into two groups, those fulfilling chronic fatigue caseness after six months (CF+, Chalder Fatigue Questionnaire > 3 when dichotomously scored) and those who did not (CF-). Chi-square, student’s t or Mann-Whitney U tests were used to compare the two groups at baseline and after 6 months. Paired t or McNemar test were used to assess changes from baseline to 6 months in the two groups, and linear or logistic regression were used to assess interactions. This study is part of the CEBA-project (Chronic fatigue following acute Epstein-Barr virus infection in adolescents).

**Results.** During the acute infection, CF+ trended towards better performance on verbal recognition compared with CF- (86% vs 76% responded all correct, p-value=0.074), while the scores on baseline working memory and estimated full-scale intelligence quotient were lower in the CF+ group compared with the CF- group (digit span forward and backward, mean total score 14.7 vs 15.6, p-value=0.054, estimated full-scale intelligence quotient 108.4 vs 112.7, p-value = 0.013). Six months after the acute infection, the CF+ group did no longer perform better on verbal recognition, and they trended towards worse performance on working memory and cognitive inhibition (digit span

forward and backward, mean total score 15.3 vs 16.2,  $p$ -value=0.052, color-word interference condition 3, errors, mean 1.6 vs 1.2,  $p$ -value 0.061). Analyses on changes through time showed that both groups generally performed better 6 months after the acute infection, however, the CF- group improved more than the CF+ group. Assessing interactions, level of depressed mood at 6 months seemed to be the driving force in the association between working memory and CF+. Otherwise did not depressed mood, anxious mood, gender nor sleep difficulties affect group differences.

Conclusions. During the acute EBV-infection, the cognitive functioning in the two groups was quite similar. The CF+ group trended towards better verbal recognition, as also have been previously shown as a risk factor for the development of fatigue. As time passed by, the CF- group improved their cognitive abilities more than the CF+ group, leading the CF+ participants to perform worse on executive functioning at the six months visit. This latter finding seemed partly driven by depressed mood.

Trial registration. ClinicalTrials, ID: NCT02335437

### **Multi-Time-Point Assessment of Development of Anxiety and Depressive Symptoms in Youth Newly Diagnosed with - Inflammatory Bowel Disease**

**Bonney Reed & Rebecca Hinrichs, Emory University, USA**

**Grace Cushman, University of Georgia, USA**

**Sharon Shih, Georgia State University, USA**

**Subra Kugathasan & Tanja Jovanovic, Emory University, USA**

Youth diagnosed with Inflammatory Bowel Disease (IBD), a lifelong illness, experience increased risk of internalizing disorders (i.e., depression and anxiety symptoms). However, it is unclear at the time of diagnosis which patients are most at risk for comorbid psychological symptoms. This study aims to evaluate the relationships between psychophysiological reactivity at diagnosis and development of internalizing symptoms in youth with IBD. Physiological reactivity refers to bodily reactions in response to a stressor and varies with regards to intensity and threshold for activation between individuals. Differences in psychophysiological reactivity may affect patients' risk for developing psychosocial difficulties within the context of stress, such as the stress of diagnosis with a chronic illness. Youth ages 8 to 17 years were recruited to participate in an experimental task to assess physiological reactivity to an IBD-specific and a global stressor and to complete study questionnaires on life stressors and internalizing symptoms. Physiological reactivity was measured through skin conductance. Current sample includes 40 youth and their parents. At baseline, greater exposure to lifetime stress was associated with both anxiety ( $r = .37$ ,  $p < .05$ ) and depressive symptoms ( $r = .33$ ,  $p < .05$ ). Greater physiological reactivity during the IBD-specific stress task was related to depressive symptoms ( $r = .40$ ,  $p < .05$ ). Stressful life events moderated the relationship between reactivity and internalizing symptoms, with a relationship between higher number of stressful life events and greater internalizing symptoms at medium and high levels of reactivity. Time 2 assessment of anxiety and depressive symptoms is ongoing to examine how physiological reactivity relates to symptom changes.

### **Anxiety, Worry and Posttraumatic Stress in Parents of Children with Food Allergy**

**Kate Roberts, Judith Young & Richard Meiser-Stedman, University of East Anglia, United Kingdom**

**Alex Brightwell, Norfolk and Norwich University Hospital Trust, United Kingdom**

Background. Food allergy is a paediatric health problem affecting between 6-8% of children, with rates being highest in pre-school children. Parents have to medically manage their child's food allergy, whilst also adjusting to and coping with the psychosocial impact of the condition. For some parents, their child's food allergy has the potential to be life threatening. Despite this no previous research has assessed posttraumatic stress in this population and there has been limited research on parental anxiety. In this talk, we will outline how clinical challenges led to the current research study, present novel findings from our research and discuss the clinical implications.

Objective. This study aims to explore anxiety, worry, and posttraumatic stress symptoms (PTSS) in parents of children with food allergies, and to evaluate whether these three psychological outcomes could be predicted by allergy severity, intolerance of uncertainty, and food allergy self-efficacy.

Methods. Participants were 105 parents who reported their children to have medically diagnosed food allergies. Participants were recruited to a study on parent wellbeing through an allergy clinic and social media advertisements. Participants completed online questionnaires assessing anxiety, worry, PTSS, intolerance of uncertainty, food allergy self-efficacy, and demographic and allergy information.

Results. 81.0% of parents reported clinically significant worry, 42.3% met the clinical cut-off for PTSS, and 39.1% reported moderate-extremely severe anxiety. Regression models including allergy severity, intolerance of uncertainty, and food allergy self-efficacy were significant for all three psychological outcome measures. However, intolerance of uncertainty was the only variable to consistently be significantly predictive in these models.

Conclusions. This study highlights the need for greater awareness of the mental health needs of parents of children with food allergy. The study also indicates that factors impacting on parents' perception of threat may be most strongly predictive of psychological outcomes, warranting further research. Finally, the study indicates that intolerance of uncertainty may be a promising target for psychological interventions within this population.

### **Cognitive-Behavioral Aspects in the Treatment of Obesity - Innovative Approaches to Current Research**

**Convenor: Stefanie Schroeder, University of Bamberg, Germany**

**Chair: Stefanie Schroeder, University of Bamberg, Germany**

#### **Subjective Obesity-Related Representations – are they Relevant for the Treatment of Obesity?**

**Stefanie Schroeder, Carmen Henning, Caroline van der Velde & Sabine Steins-Löber, University of Bamberg, Germany**

**Stephan Herpertz, LWL University Hospital of the Ruhr University Bochum, Germany**

**Jörg Wolstein, University of Bamberg, Germany**

Introduction. Self-regulation is an important aspect in weight management and individuals with obesity often report difficulties in self-regulative behavior. Individuals with poor self-regulation often report dysfunctional eating behavior and higher BMI. In consequence, the long-term outcome of weight reduction is often poor, resulting in emotional distress. Self-regulation may therefore be a key aspect influencing the course of obesity. Previously, obesity has been suggested being a chronic condition. According to Leventhal's common-sense model (CSM) of self-regulation, illness-related self-regulative behavior may be impacted by cognitive and emotional subjective representations that individuals hold about their own health status, possible illness threats and treatment options. Empirical studies confirmed these assumptions for several chronic illnesses. For obesity, subjective obesity-related representations according to the CSM may be

associated with obesity-related self-regulative behavior, but there is lack of empirical evidence. The aim was to investigate whether subjective obesity-related representations were associated with aspects of self-regulative behavior in individuals with obesity. Method. 411 individuals with obesity (88 % female, 42 ± 11 years, BMI 42.5 ± 9.3) reported on their subjective obesity-related representations (IPQ-R), obesity-related distress (EDE-Q scale figure concern, PHQ-9), eating behavior (DEBQ), and BMI via an online-assessment. Multiple blockwise linear regression analyses were conducted to examine whether subjective obesity-related representations were associated with obesity-related distress, eating behavior, and BMI. Results. Individuals with obesity grade III reported more dysfunctional subjective obesity-related representations than individuals with obesity grades I and II ( $p < .007$ ;  $d = 0.4 - 1.0$ ). Obesity-related distress was significantly associated with subjective obesity-related representations about consequences of obesity, controllability by treatment, and emotional representation of obesity ( $R^2 = .452$ ;  $p < .001$ ). Adding BMI and number of physical complaints as predictors did not increase  $R^2$ . Emotional and external eating behavior were significantly associated with subjective obesity-related representations about the expected duration of obesity, controllability by personal efforts, and emotional representation ( $R^2 = .136 - .185$ ;  $p < .001$ ). There was significant increase in  $R^2$  for BMI ( $\Delta R^2 = .014 - .027$ ;  $p < .019$ ) and positive screening for binge eating disorder ( $\Delta R^2 = .064 - .079$ ;  $p < .001$ ). Restrictive eating behavior was not associated with any of the obesity-related representations. Discussion. The results show the relevance of subjective obesity-related representations for several aspects of self-regulative behavior in obesity and may thus pose an important factor to focus on in the treatment of obesity. In particular, the emotional consequences of obesity, representations about obesity-related consequences, controllability by personal efforts and treatment as well as expectations about the duration of the obesity should be assessed and should be included in future interventions. Conclusion. Interventions related to subjective obesity-related representations may have the potential to improve the course of obesity by improving self-regulative behavior. Further research is needed.

### **Gender in the Treatment of Obesity - Do Women and Men Report Different Cognitive-Behavioral Factors That Promote or Impede Long-Term Weight Loss Maintenance?**

**Caroline van der Velde, Stefanie Schroeder, Maria Haun & Corinna Grillmeyer, University of Bamberg, Germany**

**Sebastian Jongen & Stephan Herpertz, LWL University Hospital, Ruhr-University Bochum, Germany**

**Sabine Steins-Löber & Jörg Wolstein, University of Bamberg, Germany**

Long-term weight loss is a challenge for people with overweight and obesity. There is evidence that individuals who successfully lost weight (weight maintainers) differ from individuals who repeatedly fail to maintain weight loss (weight regainers) with regard to cognitive-behavioural factors that promote or impede weight loss. These findings suggest that psychological factors exist that are relevant for a successful long-term weight loss. Furthermore, gender differences in the effectiveness of weight loss were detected that have not been considered in the identification of cognitive-behavioural factors of successful weight loss reduction so far. The aim of this qualitative study design was to determine gender-specific psychological predictors that are associated with successful weight loss.

Twelve female (body mass index: 23.97±3.49 kg/m<sup>2</sup>) and eight male (BMI: 26.97±2.71 kg/m<sup>2</sup>) weight maintainers (≥10% weight loss; weight maintenance lasts 12.8±8.93 months) as well as 15 female (BMI: 36.54±9.90 kg/m<sup>2</sup>) and six male (BMI: 37.80±12.07 kg/m<sup>2</sup>) weight regainers were included in the study. We conducted eight semi-structured focus groups in which the participants were asked about relevant psychological factors for their weight development (e.g. self-regulation, self-efficacy, coping). The identification of relevant psychological aspects occurred theory based and interpretive based on data. Gender-specific cognitive-behavioral factors that promote or impede weight loss and weight loss maintenance were assessed by qualitative content analysis.

Gender differences in male and female weight maintainers were observed with respect to self-perception, self-regulation and perception of social support. Women who successfully maintained weight loss reported that strict control behaviour, giving up specific food and social events and the development of body awareness were decisive for long-term weight loss. In contrast, male weight maintainers compensated their self-determined losses of control over eating through physical activity. Exposure to alcohol was reported as a challenge during weight loss from male weight regainers as well as male weight maintainers, but seldom from female participants. Both female and male weight regainers named a dysfunctional impulse control and low levels of self-efficacy as cognitive-behavioural factors that impede successful weight loss.

The results indicate that gender differences with regard to behavioural-cognitive factors (self-regulation, self-efficacy and cognitive processing of failure) should be considered in the treatment of overweight and obesity to improve the long-term effectiveness of weight loss programs for female and male individuals. In the future, appropriate interventions should be developed and evaluated with respect to their effectiveness.

### **Internalized Weight Stigma: Consequences for the Individual and Therapeutic Approaches**

**Claudia Luck-Sikorski, University of Applied Health Sciences Gera, Germany**

Obesity affects up to 22% of the German population. Patients with obesity suffer from psychological disorders more often than people with normal-weight. The risk for depressive disorders, for example, is about doubled compared to people with normal-weight. This may partially be explained by the magnitude of stigmatization that the patients encounter in everyday life. Weight stigmatization can either directly be associated to psychopathology, but can also be mediated by psychological risk factors such as impairments in body image, dysfunctional coping styles but also self-worth and confidence. Up to 40% of people with severe obesity furthermore report having been discriminated against because of their weight.

Stigmatization can be internalized, e.g. negative attitudes are taken over by those stigmatized. Internalization of stigma has consequences for behavior and wellbeing of people with obesity, but also pathophysiological consequences on the HPA axis. The consequences are reviewed and linked to CBT based therapeutic group programs that are available to help patients deal with weight stigma.

### **Food Image-Influenced Decision-Making Under Ambiguity in Morbid Obesity**

**Astrid Mueller & Marek Lescher, Hannover Medical School, Germany**

**Elisa Wegmann, Patrick Trotzke & Silke Müller, University Duisburg-Essen, Germany**

**Gregor Szyzik & Martina de Zwaan, Hannover Medical School, Germany**

The study investigates if craving reactions on semi-individualized visual food stimuli and symptoms of food addiction are related to decision-making under ambiguity in individuals with obesity. The study included 122 bariatric surgery candidates with class 2/3 obesity and individuals with 61 control participants with normal weight/pre-obesity. Subjective craving responses toward visual food cues were compared in patients vs. control participants. Decision-making was measured by a modified computerized version of the Iowa Gambling

Task (IGT), whereupon both samples were divided into two subgroups that performed different versions of the IGT. For group 1, semi-individualized appetitive food images were displayed on the advantageous card decks and non-appetitive stimuli were linked to the disadvantageous decks. For group 2, semi-individualized appetitive food images were displayed on the disadvantageous card decks and non-appetitive stimuli were linked to the advantageous decks. The results indicate that food picture processing interferes with decision-making under ambiguity, regardless of weight status.

#### **From Lab to Clinic: Exposure to Reduce Overeating and Binge Eating**

**Anita Jansen & Ghislaine Schyns, Maastricht University, the Netherlands**

“Eat less, eat better, exercise more: change your lifestyle”. This is the advice overweight people usually get. However, most of the obese people do know this and if they could change their lifestyle, obesity was not a problem. It appears to be extremely difficult to change one’s lifestyle and eating habits. Learned appetitive responding, or food cue reactivity, is a strong motivator to eat, even in the absence of hunger. Cued desires and cued cravings might sabotage healthy eating, induce weight gain and impede weight loss or weight loss maintenance. Then, the extinction of appetitive responding could be helpful to eat less and lose weight. In this presentation, procedures to extinguish food cue reactivity are discussed and the translation to exposure treatments for binge eating and overeating is made.

#### **Symposia 5: Psychosis & Bipolar Disorders**

##### **Predictors and Moderators of Response to Psychosocial Treatment for Bipolar Disorder**

**Convenor: Thilo Deckersbach, Massachusetts General Hospital and Harvard Medical School, USA**

**Chair: Thilo Deckersbach, Massachusetts General Hospital and Harvard Medical School, USA**

**Discussant: Andrew Nierenberg, Massachusetts General Hospital and Harvard Medical School, USA**

##### **Are Cognitive and Motivational Variables Interacting with Psychotherapy and Affecting Outcome in Bipolar Disorder?**

**Thomas Meyer, McGovern Medical School, USA**

Objective: Psychotherapy has beneficial effects to prevent recurrence of mood episodes in patients with bipolar disorder (BD) and to treat especially current bipolar depression. However, the effects are moderate, and psychotherapy does not work equally well for everyone. Therefore, using an existing data set from a randomized controlled trial of Cognitive Behavior Therapy for BD (Meyer & Hautzinger, 2012) we explored if cognitive and motivational variables predict outcome.

Method: 76 euthymic adult patients with BD were randomly assigned to either 9 months of Cognitive behavioral therapy (CBT) or Supportive Therapy (ST), and followed up for 2 years after completing therapy (Meyer & Hautzinger, 2012). The primary outcome measure was recurrence of mood episodes. We looked at cognitive variables (e.g. memory) and approach/avoidance motivations as potential moderators.

Results: Memory interacted with outcome of psychotherapy, and preliminary analyses revealed that Reward Sensitivity (as a measure of approach motivation) showed a trend to predict outcome as well, but irrespective of the psychotherapy modality. Conclusions: While our results are based on post hoc analyses of an existing data set, they show that we might be able to identify moderators that could allow us to adjust treatment to such individual characteristics.

##### **Predictors and Moderators of Response to Psychosocial Treatment for Depression in Bipolar Disorder: The Role of Age of Onset, Course of Illness, Medical and Psychiatric Comorbidity and Attributional Style**

**Thilo Deckersbach, Massachusetts General Hospital and Harvard Medical School, USA**

**Alexandra Gold, Boston University, USA**

**Amy Peters, Louisa Sylvia & Andrew Nierenberg, Massachusetts General Hospital and Harvard Medical School, USA**

Pharmacotherapy is the first line of treatment for individuals with bipolar disorder, but unfortunately, these treatments fail to bring many patients with bipolar disorder to sustained symptomatic and functional remission. Empirically tested adjunctive psychosocial treatments for bipolar disorder have demonstrated efficacy for increasing medication adherence, preventing relapse, enhancing family functioning and shortening the length of depressive episodes. Yet, despite these advancements, many individuals with bipolar disorder continue to show impairments in psychosocial functioning and overall quality of life. This talk focuses on predictor and moderators of response to psychosocial treatment for patients with bipolar disorder. Depression is the biggest unresolved problem for patients with bipolar disorder both in terms of recurrence as well as response to pharmacotherapy or psychosocial treatment. The Systematic Enhancement Program for Bipolar Disorder (STEP-BD) is the largest multi-site longitudinal study of bipolar disorder to date, enrolling 4361 participants across 21 sites. Embedded within STEP-BD was a randomized controlled trial of psychotherapy for bipolar depression (n=293 patients) comparing intensive psychotherapy (cognitive-behavior therapy [CBT], family-focused therapy [FFT], or interpersonal and social rhythm therapy [IPSRT]) with a brief intervention drawing on the most common psychosocial strategies shown to offer benefit for bipolar disorder (collaborative care). Overall, results indicated that adjunctive intensive psychotherapy was more beneficial in achieving and reducing time to recovery from a depressive episode than collaborative care. No differences were found among the 3 intensive psychosocial treatments in terms of response rates. Subsequent predictor and moderator analyses indicated that individuals with more lifetime mood episodes on average also had an earlier onset of the disorder. Individuals with a comorbid anxiety disorder were more likely to respond to intensive psychotherapy than collaborative care. Individuals with more lifetime mood episodes were less overall likely to respond to treatment. Individuals with 10-20 previous depressive episodes responded better to intensive psychotherapy compared to collaborative care. Likewise, individuals with more comorbid medical conditions had a higher likelihood of response with intensive psychotherapy compared to collaborative care. Individuals with more extreme attributional styles were less likely to respond to treatment.

##### **Do Memory Difficulties and Inflexibility Predict Response to Psychotherapy for Depression in Bipolar Disorder?**

**Amy Peters, Massachusetts General Hospital and Harvard Medical School, USA**

**Conor Shea, Boston University, USA**

**Aishwarya Gosai, Louisa Sylvia, Andrew Nierenberg & Thilo Deckersbach, Massachusetts General Hospital and Harvard Medical School, USA**

Patients with bipolar disorder spend most of their time depressed. Psychotherapy adjunctive to mood stabilizing medication can shorten the length of depressive episodes. However, not all patients benefit from psychotherapy. Approximately 30% of patients with bipolar disorder

have cognitive impairments. Patients with more cognitive impairment may benefit less from psychotherapy due to difficulties remembering the content of treatment sessions or implementing homework assignments. We recently conducted a randomized controlled trial of cognitive-behavioral therapy (CBT) vs. supportive psychotherapy (SP) for depression in patients with DSM-IV bipolar I disorder. Before treatment patients completed a neuropsychological evaluation including tests of memory and executive functioning. Pre-treatment, a subset of participants (also underwent functional Magnetic Resonance Imaging (fMRI) in a 3 Tesla Siemens Trio MRI scanner in conjunction with a verbal memory paradigm. At baseline, patients in both the CBT and the SP condition had moderate levels of depression. Depression in both treatment groups, decreased equally to the end of treatment. Difficulties with retention of information, but not initial learning predicted treatment response. Patients with more difficulties in flexibility had a slower response to treatment. fMRI findings showed that Increased activation in the left dorsolateral prefrontal cortex and right hippocampus during learning was predicted depressive symptom improvement. We will discuss the implications of pre-treatment neuropsychological and fMRI findings for treatment response to psychotherapy and type of psychotherapy.

#### **A Lifestyle Intervention for Bipolar Disorder**

**Louisa Sylvia, Massachusetts General Hospital and Harvard Medical School, USA**

**Samantha Pegg, Vanderbilt University, USA**

**Steven Dufour, Uniformed Services University of the Health Sciences, USA**

**Jessica Janos, The University of North Carolina at Chapel Hill, USA**

**Emily Bernstein, Harvard University, USA**

**Nathan Hall, Kristen Ellard & Andrew Nierenberg, Massachusetts General Hospital and Harvard Medical School, USA**

Individuals with bipolar disorder (BD) are more likely than the general population to develop risk factors associated with cardiovascular disease, one of the leading causes of morbidity and mortality in this clinical population. To address this disproportionate medical burden, we developed Nutrition Exercise and Wellness Treatment (NEW Tx), a lifestyle intervention for individuals with BD. In this study, participants were randomized to NEW Tx (n = 19) or a control waitlist (n = 19). NEW Tx is a 20-week intervention based on Cognitive and Behavioral Therapy principals to help people improve their nutrition, exercise and other lifestyle habits (e.g., sleep, substance use, decision-making). We examine the intervention's feasibility, acceptability, and efficacy to improve the physical and psychological outcomes of individuals with BD. We found no significant difference in attrition between the control group (31% attrition) and the intervention group (26% attrition). Participants attended 67% of the intervention sessions and overall rated moderate acceptability of the intervention on the Care Satisfaction Questionnaire ( $M=25.77 \pm 6.88$ ). Only baseline manic symptoms and treatment expectations predicted treatment satisfaction. The NEW Tx group reported increased weekly exercise duration and overall functioning, and decreased depression and illness severity over the study duration. However, only improvements in weekly exercise and functioning were significantly greater in the NEW Tx group than in the control group. There were no group differences in body mass index or mood symptoms over the study duration. These data suggest that a manualized lifestyle intervention for BD may not be ideal to improve lifestyle changes in this clinical population. Further research is needed to pilot personalized approaches to creating a healthy lifestyle in BD.

#### **Implementing Digital Health Interventions (DHI) in Mental Health Services: Pitfalls to Avoid and Practical Tips for Success**

**Convenor: Naomi Fisher, University of Lancaster, United Kingdom**

##### **Design and Development of a Digital Health Intervention for Psychosis / Bipolar- Relatives Education And Coping Toolkit**

**Fiona Lobban, Lancashire Care Foundation Trust, United Kingdom**

**Naomi Fisher, Heather Robinson & Steve Jones, University of Lancaster, United Kingdom**

Relatives and friends of people with bipolar and psychosis provide a large amount of vital unpaid support, but this can come at a cost in terms of high levels of distress and increased use of healthcare services. Despite government commitments, and international clinical recommendations, to provide relatives with the information and support they need, there is still a challenge with access to clinical services and support for relatives.

To overcome this challenge, we developed a supported self-management toolkit based on evidence based approaches to working with relatives. This presentation outlines the development of the Relatives Education and Coping Toolkit (REACT), which was co-designed with relatives and clinical staff, and how this was shown to be acceptable, feasible, and effective in a small RCT.

We will present how the learning from this study then informed development of an online version of REACT, and the adaptations this required. REACT includes 12 psychoeducation modules, a peer supported group forum, private messaging to a trained relative (REACT Supporter), and a resource directory (RD) – a comprehensive list of existing support for relatives. Rationale and challenges in developing and delivering each of these components will be discussed. This presentation will be of particular interest to those developing and using digital health interventions to deliver psychological therapies for service users and their support networks.

##### **Peer Support in a Carer Context: Lessons learned from REACT**

**Steve Jones, Fiona Lobban, Heather Robinson & Naomi Fisher, University of Lancaster, United Kingdom**

Carers provide very high levels of unfunded care in mental health, often at substantial cost to themselves. In delivering this care they often accumulate substantial knowledge and experience which could be vital to others in a caring role. From the outset we developed the digital REACT intervention to include peer support as an integral part of the intervention. We felt that this interactive component would be crucial to engagement with the intervention and that carers would be perceived as more authentic supporters for fellow carers than mental health professionals in this context. REACT contains both an interactive forum and private messaging facility which are over seen by REACT supporters (peer supporters). REACT supporters help stimulate and maintain forum activity, moderate the forum, provide direct support through private messaging and respond to clinical risk. This activity was overseen and supervised by two experienced clinical psychologists. This presentation, jointly delivered by a clinician (Steven Jones) and a REACT supporter will describe the role, associated training and supervision, and consider both the benefits and the challenges associated with it. It will also consider issues linked to the process of moving the REACT supporter role from a research into a clinical delivery setting. This will include discussion of how REACT supporters can best balance their own needs and concerns with the delivery of support and how clinical service priorities can facilitate or impede successful transfer into practice. Lessons from this work are likely to be of wider relevance to other initiatives seeking to develop carer roles of this type.

## **The REACT Randomised Controlled Trial – Design, Delivery and Findings**

**Heather Robinson, Fiona Lobban, Steve Jones & Naomi Fisher, University of Lancaster, United Kingdom**

The REACT trial tested the clinical and cost effectiveness of REACT plus treatment as usual (TAU) compared to a RD plus TAU in a primarily online single-blind national definitive randomised controlled trial (RCT). Eight hundred UK-based, help-seeking relatives, aged 16 or over, with high levels of distress (primary outcome) and access to the internet were randomised to receive REACT+TAU or RD+TAU. Relatives completed measures online at baseline, 12 and 24 weeks. Findings from the REACT RCT will be presented.

Given the recent expansion in the use of digital mental health intervention, considerations for effectively designing, implementing and evaluating digital trials are important and timely. How best to deliver and test online interventions requires detailed consideration in terms of design to ensure effective recruitment, valid consent, participant engagement, secure data collection and storage. This presentation will provide recommendations for the design and delivery of online trials, drawn from our experience of designing and delivering REACT.

## **Implementing Digital Health Interventions (DHI) in Mental Health Services: Pitfalls to Avoid and Practical Tips for Success**

### **The Transition from Research to Service Delivery: Pitfalls to Avoid and Practical Tips for Success**

**Noami Fisher, Fiona Lobban, Steve Jones & Heather Robinson, University of Lancaster, United Kingdom**

There is an overwhelming consensus that in order to meet healthcare's triple aim of better health, better care and reduced costs, health care systems must embrace digital technology. Increasing numbers of Digital Health Interventions (DHI) are being developed to support the delivery of healthcare. DHIs are particularly suited to providing education and support to people with long-term health conditions, and their relatives: they can be convenient (accessed anywhere, anytime,) confidential, anonymous (much appreciated in stigmatising conditions), and used at times of need. Despite substantial investment in development, successful implementation of DHIs into routine clinical practice is limited. We need to learn from research that examines the factors that influence implementation to maximise the benefit of DHI. In this presentation we use the IMPART study as an illustration of some of the known challenges and draw on implementation theory to suggest how they can be overcome.

The IMPART study was a theory-driven multiple case study design using a mixed methods approach, integrating quantitative assessments of outcome (delivery, use and impact of REACT) and qualitative assessments of mechanisms of implementation through observation, document analysis, and in-depth interviews. The overall aim was to identify critical factors impacting on uptake and use of REACT in order to inform an implementation plan for REACT and provide recommendations for future DHI's. Our cases were six National Health Service Trusts in England. We used Normalisation Process Theory (NPT) to understand work done by staff to facilitate implementation, and the Non-adoption, Abandonment, Scale-up, Spread, and Sustainability (NASSS) framework to integrate this with key factors impacting on relatives' engagement with REACT, and barriers to implementation within the wider context.

We will share the iterative collaborative process that brought together staff and relatives to identify factors that facilitate implementation and ways to overcome barriers. This approach led to the development of iterative implementation plans that were used and fed back upon within the study. In this context, an implementation plan describes a bundle of strategies designed with services to address a challenge to them offering a DHI as part of their service.

One of the questions we will explore is the level of adaptation required for a DHI to fit with the changing needs of services and those who access them. We will reflect on the tension between making it usable and not losing the active ingredients of the intervention. A revised model of REACT will be presented that addresses many of the barriers required for REACT to be offered as part of a service. Throughout the presentation we will highlight pitfalls to avoid and practical tips for success for clinicians, commissioners, researchers and developers of digital interventions.

## **Staging in Bipolar Disorders: New Concepts for Psychotherapy**

**Convenor: Thomas Stamm, Charité University Medicine Berlin, Germany**

**Chair: Thomas Stamm, Charité University Medicine Berlin, Germany**

### **Psychological Characteristics of Individuals at High Risk for Bipolar Disorders**

**Thomas Meyer, University of Texas, USA**

Background: Bipolar disorders (BD) are recurrent mental health problems having a major impact on quality life of the individuals and their families. A major concern is the delay, on average about 8-10 years, between first symptom onset and first manic episode (and therefore recognition that the individual has BD). Delay of recognition and treatment of BD is, however, associated with increased risk for suicide, emotional and economic burden. Staging models suggest that early intervention seems therefore important hoping to be able to avoid some of the negative short-term and long-term consequences of being diagnosed with BD and experiencing recurrent mood episodes. Intervening in time, however, requires the reliable identification of people at ultra-high risk for BD. The presentation will review what risk factors, especially psychological ones, have been identified predicting BD and whether these factors can help us targeting interventions at early stages of BD to potentially prevent some of the negative consequences of untreated BD. It will also be discussed what ethical issues arise when risk factors are chosen to select people for screening and intervention. The topic of using screening measures will be touched upon as well, especially with respect to how well there are validated in younger samples and whether they can be used to identify early stages of BD.

### **Early Stage Psychological Intervention for Relapse Prevention in Bipolar Disorder**

**Martin Hautzinger, University of Tübingen, Germany**

Very recently, we finished a randomized, controlled, multi-center treatment trial on relapse prevention in Bipolar Disorder. In this study we included primarily early stage (young) patients suffering of Bipolar I or Bipolar II disorder. Focus of our trial was to compare a specific, elaborated, cognitive-behavioral group intervention with a non-specific, general, supportive group intervention. Both treatments were delivered in a new format fitting more to life style of young subjects. We included more than 300 subjects from 10 clinical sites. Currently, we are analyzing the baseline to post-treatment processed (6 months period) and finish the last follow-up evaluations (12 months after end of treatment). This presentation will describe the new, specific psychotherapy format and show some first results with focus on young patients.

## **Functional Remediation as a Later Stage Intervention for Bipolar Disorder**

**Carla Torrent, University of Barcelona, Spain**

Between 40% and 60% patients with bipolar disorder experience neurocognitive impairment during euthymia. These rates are quite similar to those reported as regards to functional impairment. Given the impact of neurocognitive impairment on daily functioning there is a need to develop adjunctive therapies targeting neurocognitive skills in order to enhance everyday functioning.

Functional remediation is a program based on a neurocognitive psychosocial focus including modeling techniques, role playing, self-instructions, verbal instructions, and positive reinforcement, together with metacognition. It includes education on cognitive deficits and their impact on daily life, providing strategies to manage the cognitive deficiencies in the different cognitive domains. Functional remediation is a promising tool for achieving improvement in functional performance in euthymic bipolar patients, specially in later stage of the illness, reducing the impact of bipolar disorder on daily functioning within an ecological framework by increasing the wellbeing of the patients and reducing the costs and social burden of this disease.

## **Beyond Mood Management: Emotion Regulation Within Bipolar Disorder**

**Convenor: Kim Wright, University of Exeter, United Kingdom**

**Chair: Kim Wright, University of Exeter, United Kingdom**

## **Pathways to Mania Risk in Young Adults: Investigating Concurrent and Prospective Associations with Affective Lability and Emotion Regulation**

**Alyson Dodd, Northumbria University, United Kingdom**

**Lucy Robinson, Newcastle University, United Kingdom**

**Kim Wright, Exeter University, United Kingdom**

**Craig Steel, University of Reading, United Kingdom**

**Nicola Byrom, King's College London, United Kingdom**

**Robert Dempsey, Staffordshire University, United Kingdom**

**Jasper Palmier-Claus, Lancaster University, United Kingdom**

**Filippo Varese, University of Manchester, United Kingdom**

Increasing evidence suggests that both negative and positive emotion regulation influence mental health and well-being (Aldao et al., 2010; Carl et al., 2013). Hypomanic personality, a proxy measure of mania risk (Kwapil et al., 2000), is related to strategies for both upregulating and downregulating emotion, and all are related to mood symptoms. Mania risk is associated with affective lability (Sperry & Kwapil, 2017), but their shared and unique relationships with emotion regulation and mood symptoms have not been investigated. This study was a longitudinal investigation of associations between mania risk, affective lability, emotion regulation, and mood and anxiety symptoms. Specifically, this study aimed to test similarities and differences between hypomanic personality and affective lability in terms of their associations with mood, and the moderating role of emotion regulation in these relationships.

UK university students (aged 18-25 years) completed two surveys at the beginning of Semester Two. The first (T1) provided baseline data on hypomanic personality (mania risk), affective lability, manic, depressive and anxious symptoms, wellbeing, and outcomes that are meaningful to students: financial worries and university-related wellbeing. The second (T2) provided data on psychological mechanisms that are putatively related to mania risk, mood, wellbeing and academic outcome in students: positive and negative emotion regulation strategies, and mood-based impulsivity (positive and negative urgency). Mood and anxiety measures were completed again. A follow-up survey (T3) at the end of the academic year measured mood, wellbeing, and university-related wellbeing. From an initial sample of  $n = 1117$ ,  $n = 221$  completed T1 and T3, and the final sample who completed all phases was  $n = 113$  (mean age = 20.5 years, 74% female).

Mania risk was positively associated with affective lability. Both were positively correlated with depression and anxiety, as well as tendencies to amplify and dampen positive affect, ruminate as a response to low mood, and positive and negative urgency. Mania risk was additionally related to higher mania and amplifying positive emotion. In linear regression analyses, mania risk and affective lability were not predictors of anxiety or depression over and above positive and negative emotion regulation strategies and urgency. Dampening positive affect was the strongest predictor of depression and anxiety, which was also predicted by negative urgency. Only mania risk and emotion-focused rumination were uniquely associated with manic symptoms.

Longitudinal analyses will investigate whether mania risk and affective lability predict outcomes at the end of Semester 2. Further analyses will explore whether emotion regulation strategies moderate these associations.

This study provides evidence that mania risk and affective lability are strongly related, and have a similar pattern of relationships with emotion regulation strategies and depression and anxiety in students (relatively common mental health difficulties in this population).

However, mania risk related to manic symptoms whereas affective lability did not. Dampening, negative urgency and emotion-focused rumination appear particularly problematic for student mental health. Future work must reduce drop-out to improve power at follow-up.

## **The Promise and Problems of Positive Emotion in Emerging Adults at Risk for Mania**

**June Gruber, University of Colorado, USA**

Emerging adulthood has been defined as a critical development window characterized by formative developmental milestones and opportunity for psychological growth. At the same time, it is a period that coincides with and confers increased risk for the onset of severe psychiatric disturbance such as bipolar disorder as well as associated maladaptive behaviors including risk-taking and substance use. This underscores the need to identify affective mechanisms that may confer vulnerability to psychological disturbance during this period. In this talk, I will highlight the role of positive emotional processing as a marker of risk and resilience from an ongoing study focusing on sample of emerging adults recruited from a large public university campus community pre-screened to be at putative high or low mania risk. I will discuss findings utilizing an experimental multimodal approach to emotion processing that integrates behavioral, psychophysiological, and reward-related indices associated with positive emotion disturbance. The talk will conclude with a roadmap for future research aimed at providing an integrative model and potential translational opportunities for developing targeted therapies that focus on cultivating optimized positive emotion functioning.

## **Imagery in Bipolar Disorder: Comparing Imagery Aspects in Bipolar, Unipolar, Creative Imagery Prone and Healthy Participants**

**Karin van den Berg & Marisol Voncken, Maastricht University, the Netherlands**

**Martina Di Simplico, Imperial College London, United Kingdom**

**Eline Regeer, Altrecht Institute for Mental Health Care, the Netherlands**

**Lisette Rops, GGzE, the Netherlands**

**Ger Keijsers, Radboud University, The Netherlands**

Bipolar disorder is a severe and chronic psychiatric disorder, associated with ongoing mood variability (as well as relapses in episodes of mania and depression) hampering both professional and interpersonal aspects of life, despite treatment with Lithium, adding psychoeducation or psychotherapy. There has been consensus for the need to improve the cognitive behavioural therapy for people with bipolar disorder. Over the recent years many CBT protocols of other psychiatric problems have been improved by adding imagery techniques. This might be particularly promising for bipolar disorders, as they have been associated with more frequent, more vivid imagery in different research studies. Holmes suggest imagery might work as an emotional amplifier in bipolar disorders, stressing the special role imagery might play in mood variability. To further investigate how best to enhance CBT using imagery techniques it is important to investigate aspects of imagery and its effect on emotion and behaviour in this group. Many studies use the Imagery Interview (by Hackmann) for this purpose, which is a semi-structured interview with several open questions which takes between 30-120 minutes to administer. Our study has compared imagery aspects in bipolar disorder (N=105) with unipolar disorder (N=51), creative healthy students (imagery prone, N=50) and healthy controls (N=135). We also compared imagery aspects between manic, depressed and stable patients suffering from bipolar disorder. And we compared the effect of aspects of imagery on emotion and behaviour between these groups.

To allow this comparison we transformed the Imagery Interview to an online Survey (DImS), evaluated to be reliable and valid in a student population. This survey comprises of five scales (frequency, quality of imagery, imagery appraisals and effect on emotion and effect on behaviour), 42 questions scored on a 9-point Likert scale, and takes on average 10 minutes to complete.

The results suggest that imagery is indeed a transdiagnostic feature. Differences between bipolar and unipolar with creative imagery prone students are the appraisals (with no differences in quality). Differences between mood states in bipolar disorder are also mainly the appraisals. In all groups all aspects of imagery have a strong effect on both self-perceived emotion and subsequent behaviour. However, this is especially true for the bipolar group (who are currently manic or depressed), were the correlations between imagery and both emotion and behaviour are significantly higher than in all other groups.

These results suggest that imagery is indeed a transdiagnostic feature in psychiatric problems, but the effect of imagery on self-perceived emotion and subsequent behaviour might be stronger in patients suffering from bipolar disorder, especially those who are currently manic or depressed. We would need to further investigate if this effect can be replicated, and try and further investigate the working mechanism behind this, as this might help us to better understand mood variability in bipolar disorder.

## **Reviewing the Emotion Regulation Process in Bipolar Disorder – What Works and What Goes Wrong?**

**Manja Koenders & B. M. Elzinga, University of Leiden, the Netherlands**

**M.A. Green, University of New South Wales, Australia**

**A. Karl & K. A. Wright, University of Exeter, United Kingdom**

Bipolar disorder (BD) is characterized by extreme fluctuations of mood, including depressed, (hypo-) manic and mixed mood states. Additionally, elevated rates of emotional instability relating to other affective states, such as anger and anxiety, are found in people with BD. The co-occurrence of these different patterns of affective instability within BD raises questions about their distinctiveness, causation, inter-relatedness and implications. Recently it has been hypothesized that the ongoing affective disturbances in BD might be related to co-occurring emotion regulation (ER) problems. One way to disentangle this might be to look into mechanisms involved in emotion regulation. Here we report the results of a narrative review on emotion regulation problems in BD. We reviewed emotion regulation disturbances relevant to each ER process of Gross's emotion regulation model: situation selection, attentional deployment, cognitive appraisal, emotion response tendencies and emotion modulation. We will discuss which specific differences in the ER process apply to people with BD as well as potential treatment implications based on these findings.

## **From Theory to Intervention: Results of Two Feasibility Studies of Emotion Regulation Approaches with People with Bipolar Disorder**

**Kim Wright, Gemma Palmer, Mahmood Javaid & Mohammad Mostazir, University of Exeter, United Kingdom**

**Tom Lynch, University of Southampton, United Kingdom**

**Bernet Elzinga, Leiden University, the Netherlands**

Bipolar Disorders typically involve multiple episodes across the lifetime, and can result in considerable personal and societal costs. The mainstay treatments have traditionally been pharmacological; whilst these can be effective for many, they do not prevent relapse in all who use them, and side effects may occur. In recent decades there has been interest in developing psychological interventions for people with Bipolar Disorder. Generally these focus upon reducing risk of relapse, and ameliorating depressive symptoms. A neglected aspect of Bipolar Disorder - from a therapeutic point of view - is the role that emotion regulation plays, both in contributing to the difficulties that individuals experience, and in potentiating episodes. Here, we report the result of two feasibility studies of group-based, emotion-regulation based therapy for people with Bipolar Disorder. The first evaluates a version of Systems Training for Emotional Predictability and Problem Solving (STEPPS) therapy amongst 12 adults with Bipolar Disorder, in a psychiatric outpatient setting. The second evaluates a DBT-informed approach amongst 12 adults with frequent mood swings in the context of Bipolar I or II Disorder, or Cyclothymic Disorder. For both studies we report acceptability and feasibility data, as well as consideration of therapeutic potential based upon estimates of reliable change. Our report concludes with discussion of next steps in the development and evaluation of emotion-regulation interventions and techniques for people with Bipolar Disorder.



## **Symposia 6: Obsessive States**

### **The Relationship Between Social Media and Indicators of Psychopathology**

**Convenor: Lien Faelens, Ghent University, Belgium**

#### **Social Media and Depression Symptoms: a Network Perspective**

**George Aalbers, Tilburg University, the Netherlands**

**Richard McNally, Harvard University, USA**

**Alexandre Heeren, Universite Louvain la Neuve, Belgium**

**Sanne de Wit, University of Amsterdam, the Netherlands**

**Eiko Fried, Leiden University, the Netherlands**

The relationship between social media and mental health is controversial. Some studies show that using social media correlates with beneficial outcomes, such as greater self-esteem, but others find that more social media use tends to co-occur with lower well-being. For example, people who spend more time on social media tend to experience higher levels of depression symptoms, loneliness, and stress. Recent evidence suggests that the effect of social media depends on what people do when they access these platforms. In particular, passive social media use (PSMU) – i.e., scrolling through News Feeds, looking at friends' photographs – might negatively influence mental health. Thus far, research has shown that PSMU correlates with depression symptoms, but their temporal relationship is unclear.

We examined the link between PSMU and depression symptoms as part of a larger research paradigm: the network perspective on mental disorders. Network theorists propose that mental disorders constitute a causal system of psychological problems, such as symptoms. Viewed from a network perspective, mental disorders develop when the activation of one psychological problem provokes other psychological problems. This perspective hypothesises, for instance, that depression develops when insomnia triggers fatigue and concentration problems, which cause work-related problems. Such problems might provoke night-time worrying that worsens insomnia and other symptoms, such as depressed mood. Considered from this viewpoint, we might consider social media use a risk factor for depression if it causes individual depression symptoms that also cause other symptoms.

To investigate this, we conducted an experience sampling study in undergraduate psychology students. Using a smartphone app, students (N = 125) reported PSMU, depression symptoms, loneliness, and stress seven times daily for 14 days. Time-series network analysis (multilevel vector auto-regression) revealed statistical associations between PSMU, depression symptoms, loneliness, and stress.

In my presentation, I will discuss results from this analysis and, if time permits, preliminary results from an ongoing study into this issue.

#### **Self-Control Perspective On Maladaptive Facebook Usage**

**Nurit Sternberg & Roy Luria, Tel Aviv University, Israel**

**Brian Vickers & Ethan Kross, University of Michigan, USA**

**Gal Sheppes, Tel Aviv University, Israel**

In the digital age we live in, the mounting time individuals spend on social media raises significant concerns about potential maladaptive consequences. However, previous research provided mixed results. We suggest that self-control has a crucial role in understanding when, for whom and why social-media usage is related to negative outcomes. Specifically, our account suggest that social media usage leads to negative psychological outcomes in situations requiring self-control, where immediate social-media temptations conflict with long-term goal pursuit (such as studying for an important exam). Taking a multi-method approach (behavioral, experience-sampling, self-report), we examined the role of self-control in social-media usage during real-life academic exam preparation period. Findings showed that enhanced procrastinatory Facebook usage (instead of studying) predicted increased levels of anxiety over time. Further findings provided direct causal evidence by creating a laboratory exam context, that directly manipulated whether actual Facebook usage was procrastinatory or not, prior to examining its influence on anxiety. Supporting predictions, only when Facebook was used instead of studying, it resulted in enhanced anxiety. Our account further investigates for whom social-media usage can lead to maladaptive consequences. Specifically, we highlight a potential working memory mechanism and its central underlying role in controlling tempting social-media information. Working memory is an online limited buffer that utilizes attentional control processes to keep relevant information in an active state. Therefore, we suggest that being able to control social-media temptations from accessing working memory is essential to preserve limited cognitive resources for the pursuit of relevant goals. Utilizing electrophysiological measures, we showed that individual differences in the neural ability to control tempting social media information from accessing working memory has moderated the relationship between social media usage and negative mental health. Further findings provided direct causal evidence by showing that experimentally enhancing individuals' ability to control social media temptation led to reduced social media representations in working memory which in turn reduced maladaptive consequences. Together, these results, involving situational aspects which require self-control and neural underlying working memory mechanism, may help understand when and for whom increased social media usage is associated with maladaptive consequences.

#### **The Impact of Social Media Use on Body Image**

**Dian de Vries, the Netherlands Association for Behavioural and Cognitive Therapy, the Netherlands**

Body image can play a role in the development and maintenance of mental health problems, such as depressive symptoms and disordered eating. Therefore, it is important for clinicians to know which factors impact body image. One such influence on body image is social media use. Social media use impacts body image in two ways: Firstly, because the importance of looking physically attractive is stressed on social media, individuals who use social media more, spend more time and energy on the way they look. Second, as people generally look their best on social media, comparing one's appearance to others on social media can cause body dissatisfaction. However, on average, the effects of social media use on body image are quite small. This likely is because the effects differ depending on who uses social media and how they use it. For example, the effects of viewing edited posts on Instagram particularly affect those who tend to compare themselves to others. Given the different effects of different social media posts and activities on different individuals, clinicians and patients should investigate together if, how and which specific type of social media use impacts their body image, rather than assuming a universal negative impact for all patients. Advising all patients to avoid social media is not a recommendable approach, especially given that certain social media activities can be a source of support or entertainment.

### **The Interplay Between Social Media Use, Self-Esteem and Risk for Affective Disorders**

**Lien Faelens, Kristof Hoorelbeke, Rudi De Raedt & Ernst Koster, Ghent University, Belgium**

Social network sites (SNS) such as Facebook and Instagram are widely used among adolescents and young adults. However, research examining the relationship between SNS use and well-being is primarily based on correlational methods and shows inconsistent results. Investigating the underlying mechanisms seems of crucial importance to gain insight into the positive and negative consequences of its use and to identify individuals at risk. During the current study, we obtained objective data of participants' social media use together with experience sampling. In this way, we examined the complex dynamics between Facebook use, Instagram use, social comparison, self-esteem and risk for affective disorders. Together, these methods will show from whom and when Facebook and/or Instagram use leads to negative mental health outcomes. Possible explanations and clinical implications will be discussed.

### **Hair-Pulling Disorder and Skin-Picking Disorder: Emotion Regulation and Treatment Enhancement**

**Convenor: Ger Keijsers, Behaviour Science Institute, Radboud University Nijmegen, the Netherlands**

**Chair: Douglas Woods, Marquette University, USA**

**Discussant: Douglas Woods, Marquette University, USA**

### **Exploring the Role of Emotion Regulation in Body-Focused Repetitive Behaviour Disorder**

**Douglas Woods & Jennifer Alexander, Marquette University, USA**

**David Houghton, Medical University of South Carolina, USA**

The present talk will describe and synthesize recent research exploring the links between emotional regulation strategies and trichotillomania severity. The first study (Houghton et al., 2014) studies 90 individuals with TTM. Experiential avoidance/psychological inflexibility were explored in relation to TTM symptoms. Results showed that scores on the AAQ-TTM fully mediated the relationships between depression and hair pulling severity & anxiety and hair pulling severity. In a second study (Alexander et al., 2018) we explored differences in those with diagnosed body-focused repetitive behavior (BFRB) disorders, subclinical BFRBs and those with no BFRBs on various constructs surrounding emotion regulation; including alexithymia, maladaptive emotional reactivity, experiential avoidance, and response disinhibition when distressed. Results showed, relative to those with subclinical BFRBs and those without BFRBs, those with BFRBs demonstrated elevated levels of maladaptive emotional reactivity, experiential avoidance, and response disinhibition when distressed as assessed by self-report measures. Furthermore, those with subclinical BFRBs did not differ from those without BFRBs on any of these deficits. In a final study we evaluated the relationship between BFRB severity and alexithymia, maladaptive emotional reactivity, experiential avoidance, and response disinhibition when distressed using data from a group of individuals with BFRBs a group with subclinical BFRBs. Results of these analyses showed that self-reported maladaptive emotional reactivity, experiential avoidance, and response disinhibition when distressed positively correlated with BFRB severity. Results also suggested experiential avoidance may explain BFRB severity's relationship with maladaptive emotional reactivity and response disinhibition when distressed. Combined these results suggest particular deficits in emotion regulation for persons with skin picking and TTM. Treatment implications will be discussed.

### **Cognitive Emotional Regulation in Hair-Pulling and Skin-Picking: the Role of Self-Criticism and Shame**

**Kieron O'Conner, University Institute of Mental Health and University of Montreal, Canada**

**Sarah Houazene, University of Montreal, Canada**

**Julie Leclerc, University of Quebec at Montreal, Canada**

**Marc Lavoie, University Institute of Mental Health and University of Montreal, Canada**

Recent research has explored the role of cognitive factors in emotional regulation of body focused repetitive behaviour (BFRB). Perfectionism has frequently been identified as a trait in BFRBs. The perfectionist aspects linked with pathology tend to be high standards and self-criticism where the person falls short of their own standards resulting in a feeling of shame which is characterised by a devaluation of the self as inadequate.

Although shame can be elicited by self-report it is an emotion difficult to isolate from neighbouring negative emotions which frequently overlap with shame. An experimental task already exists to measure shame, namely: the easy fail task (EFT), which consists of asking participants to complete a very difficult task whilst presenting it to them as a very easy task, with expectations that most people resolve the task in minutes. After finding the task difficult, the participants feel shame that they are unable to complete the task. But in a series of pilot studies we found that besides shame, other emotions are also experienced in the EFT, such as embarrassment and guilt. Hence, we modified the EFT task to include more autobiographical events in order to focus the person's feelings more exclusively on shame. Controls and those suffering distress from hair pulling or skin picking underwent the task, and emotions pre and post task were recorded. Also, desire to engage in hair pulling or skin picking was measured during and after the task. Baseline psychometric measures of shame; measures of emotional regulation and perfectionism and self-criticism were also taken.

Results showed that the task successfully elicited shame. Differences between the control and hair pulling groups on the intensity of the experience and the desire to pull are related to a model where perfectionism creates the core emotion of shame mediated by self-criticism. Addressing self-criticism and shame in therapy may prove an additional and more focused intervention to improving emotional regulation.

### **Predicting Treatment Outcomes in Patients Treated for Hair-Pulling Disorder or Skin Picking Disorder**

**Ger Keijsers, Maastricht University and Radboud University, the Netherlands**

Brief CBT (3 -7 sessions) for hair pulling disorder (HPD) and skin-picking disorder (SPD) shows excellent results (effect sizes > 1.5) and these results generally are better than those reported for other forms of treatment such as pharmacotherapy (e.g., Bloch et al., 2007). Unfortunately, not all patients profit from brief CBT and relapse rates (> 50%) in the months and years after treatment tend to be high (Keijsers et al., 2006, 2016). It is important to better understand which patients do not permanently profit from treatment. This knowledge helps to adapt CBT for those patients who are likely not to improve sufficiently. In an ongoing prediction study, including 40 HPD patients and 40 SPD patients, outcome predictors were measured at the onset of treatment. These outcome predictors include disorder-specific characteristics (severity, giving-in cognitions, level of depression), treatment process characteristics (quality of the therapeutic alliance, treatment motivation) and implicit measures of psychopathology (compromised response inhibition, approach tendency, implicit positive valence of hairpulling or skin picking). In the present presentation the preliminary results in regard to disorder-specific and treatment process characteristics are reported and discussed.

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## **Cue-Exposure and Retrieval Cues as Relapse Prevention Strategies in the Treatment of Hair-Pulling Disorder and Skin-Picking Disorder**

**Leila van Heijningen, Radboud University Nijmegen, the Netherlands**

Cue-exposure and retrieval cues as relapse prevention strategies in the treatment of hair-pulling disorder and skin-picking disorder. Brief CBT for hair-pulling disorder (HPD) and skin-picking disorder (SPD) show excellent results but unfortunately relapse rates appear to be high (Keijsers et al., 2006). Other habit-related disorders show similar patterns: relapse rates are high in pathological gambling, binge eating and alcohol abuse also (e.g., Hodgins & el-Guebaly, 2004). Research to date has not yet been able to indicate the underlining factors responsible for these high relapse rates. Extensive research suggests that learning theory could help us to reveal underlying mechanisms involved in the formation and maintenance of habits. In line with classical and operant conditioning, habits are often formed and performed when triggered by certain internal (e.g., boredom, tiredness, depressed mood or anxiety) and/or external cues (e.g., sitting on the couch, watching TV, studying). CBT helps patients changing their habits in these situations which should ultimately lead to an extinction of response to these conditioned cues. However, it has been well established that extinction is not simply unlearning but rather involves learning a second association that co-exists with the previously learned one (Bouton, 2002). Since habits are often learned and repeated in many different contexts it has been suggested that they can reoccur caused by context-related renewal. This might explain the sudden relapses experienced by many patients. During the present presentation we discuss research findings on using retrieval cues (reminders) and cue-exposure as an add-on to standard brief CBT. We present a research proposal aimed at investigating whether cue-exposure and retrieval cues are helpful at reducing relapse risk after successful CBT treatment for unwanted habits.

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## **Body Dysmorphic Disorder – Innovative Methodological Approaches to Refining Classification, Assessment, and Mechanisms of Pathology**

**Convenor: Ines Kollei, University of Bamberg, Germany**

**Chair: Berta J. Summers, Massachusetts General Hospital, USA**

### **Body Dysmorphic Disorder and Depression: A Network Analytic Perspective**

**Berta J. Summers, Massachusetts General Hospital and Harvard Medical School, USA**

**George Aalbers, University of Amsterdam, the Netherlands**

**Payton Jones & Richard McNally, Harvard University, USA**

**Katherine Phillips, Weill Cornell Medical College, USA**

**Sabine Wilhelm, Massachusetts General Hospital and Harvard Medical School, USA**

Body dysmorphic disorder (BDD) is a disorder of body image characterized by preoccupation with a perceived flaw in one's appearance, and time-consuming repetitive behaviors aimed at 'fixing' or hiding the flaw (APA, 2013). BDD frequently co-occurs with other disorders; the most common lifetime comorbidity is major depressive disorder (MDD; Gunstad & Phillips, 2003). There has been a recent initiative to examine psychopathology from a network perspective, which conceptualizes mental disorders as systems of symptoms that cause and exacerbate one another. The aim of the current study was to apply network analytic methods to characterize the functional relations among symptoms of BDD and MDD in patients with primary BDD. Our sample comprised patients seeking treatment for BDD (N=148) at academic centers in New England. Symptoms (BDDYBOCS and BDI-II scores), were assessed prior to treatment. We used state-of-the-art cross-sectional network models to estimate the network structure of: 1) BDD symptoms, and 2) BDD+MDD symptoms. We analyzed both networks to identify central (i.e., those with strong associations to other symptoms), and 'bridging' symptoms (i.e., those that connect BDD and MDD) by computing the novel centrality metric 'bridge expected influence.' 'Interference due to appearance-related thoughts,' and 'interference due to compulsions' were the most central symptoms in the BDD network. Nearly all BDD symptoms were directly associated with MDD symptoms. MDD and BDD symptoms clustered into two communities, connected by several BDD (e.g., 'avoidance') and MDD (e.g., 'punishment feelings') symptoms with high bridge centrality. The following symptoms were highly central across the BDD-MDD networks: 'interference due to compulsions,' 'feelings of worthlessness,' and 'loss of pleasure.' Findings provide data-driven insight into the link between BDD and MDD and may have important treatment implications, as BDD patients with comorbid depression might benefit more from a treatment approach that places a greater emphasis on targeting symptoms central to both diagnoses. Theoretical and clinical implications will be discussed.

## **Multimodal Machine-Learning Classification Analysis of Body Dysmorphic Disorder, Anorexia Nervosa, and Non-Clinical Populations and Prediction of Transdiagnostic Phenotypes Using Neuroimaging and Non-Neuroimaging Data**

**Jamie D. Feusner, University of California, USA**

**Donald Vaughn, Santa Clara University, USA**

**Wesley Kerr & Teena Moody, University of California, USA**

**Aifeng Zhang & Alex Leow, University of Illinois at Chicago, USA**

**Michael Strober, University of California, USA**

Anorexia nervosa (AN) and body dysmorphic disorder (BDD) have partially overlapping phenomenology including distorted perception of appearance, obsessions/compulsions, and limited insight. They also show partially overlapping patterns of brain activation, white matter connectivity, and electro-physiological responses. These markers have also shown associations with symptom severity within each disorder. Better means of distinguishing these disorders and of predicting symptom severity may be useful in ambiguous clinical scenarios or early in treatment course. We used multimodal neuroimaging features – white matter network organization and network activation patterns – as well as clinical data and demographics to a) classify AN, BDD, and non-clinical populations using machine learning; and b) predict cross-diagnostic clinical phenotypes of poor insight and obsessions/compulsions. We were able to both accurately classify the disorders (accuracy of 76%, significantly better than the chance accuracy of 35%,  $p < 0.001$ ) and significantly predict insight ( $R^2 = 0.33$ ,  $p < 0.001$ ) and obsessions/compulsions ( $R^2 = 0.52$ ,  $p < 0.001$ ) using these algorithms. These results improve our understanding of the relative contributions of the neurobiological characteristics and symptoms of these disorders and improve our understanding of potential cross-diagnostic substrates for these phenotypes in these related but nosologically discrete disorders. Results also demonstrate the utility of neurobiological markers and non-neurobiological data to predict important clinical categories and phenotypes, with potential future applications to aid in clinical decision-making and more tailored treatment.

## **Neural Correlates of Maladaptive Self-Focused Attention in Body Dysmorphic Disorder and Relation to Cognitive Behavioral Therapy Outcome**

**Angela Fang, Bengi Baran, Clare Beatty, Dara Manoach & Sabine Wilhelm, Massachusetts General Hospital and Harvard Medical School, USA**

**Background:** Maladaptive self-focused attention (SFA) is a bias toward internal thoughts that may predict poor cognitive-behavioral therapy (CBT) response. In this study, we used resting state functional connectivity MRI to test whether maladaptive SFA maps onto hyperconnectivity within the default mode network (DMN), an intrinsic brain network mediating internally-directed mentation, and whether DMN hyperconnectivity predicts worse CBT response.

**Methods:** 31 participants (20 patients with self-reported maladaptive SFA including 7 patients with body dysmorphic disorder and 13 patients with social anxiety disorder, 11 demographically matched healthy controls) completed a baseline resting state BOLD MRI scan. Eligibility was determined by scoring greater than  $\pm 1$  SD of the Self-Consciousness Scale normative mean, respectively for each group. Patients then completed 12 sessions of CBT. Seed-to-voxel functional connectivity was computed using a right medial prefrontal cortex (mPFC) seed selected from the literature representing a core DMN hub.

**Results:** The mPFC seed was more strongly connected with a right mPFC cluster for patients than controls (peak voxel:  $[+10 +34 -12]$ ;  $pFDR < .00001$ ), which is part of the DMN, but not part of the seed. No regions were more strongly connected in controls. One region in the angular gyrus (AG) (peak voxel:  $[+56 -48 +52]$ ;  $pFDR < .05$ ) that was significantly correlated with the seed was associated with treatment change (defined as percent symptom reduction). Less mPFC-AG connectivity predicted better treatment outcome. As the AG is part of certain attention networks, less mPFC-AG connectivity may reflect stronger attentional flexibility.

**Conclusions:** Brain measures of maladaptive SFA may be sensitive predictors of CBT response, which may help identify successful treatment candidates.

## **Dynamics of Insight and Associated Features in Body Dysmorphic Disorder**

**Johanna Schulte & Fanny A. Dietel, University of Münster, Germany**

**Sabine Wilhelm, Massachusetts General Hospital/Harvard Medical School, USA**

**Ulrike Buhlmann, University of Münster, Germany**

Body dysmorphic disorder (BDD) is characterized by a preoccupation with perceived appearance flaws, which are not or only slightly visible to others. Insight, i.e. the degree of conviction that these appearance-related beliefs are true, is an important dimension of BDD's psychopathology related to symptom severity and treatment implications. Diagnostic considerations based on clinical observations and cross-sectional studies have led to the implementation of an insight specifier for BDD in DSM-5, with which the degree of insight can be identified as good, poor or absent. To date, there is no data on the actual spectrum of insight, i.e. it is unclear to what extent insight differs inter- and intraindividually and which factors are associated with it. To provide data on this, we assessed  $n=30$  individuals with BDD and  $n=30$  mentally healthy controls completing six days of ecological momentary assessment (on average 8.71 assessments per day, 3075 unique assessments in total). Participants rated insight (defined as conviction, perception of others' views of beliefs, and associated distress and impairment), body dissatisfaction, affect (e.g., shame, anxiety), and further symptoms (e.g., appearance-related preoccupation and rituals). The results demonstrate a significant temporal instability of the insight variables and, according to intra-class correlations, between 47% and 65% of variance was accounted for by within-person variability. Further relationships between the measures and differences between individuals with BDD and mentally healthy participants are analyzed. This study is the first to provide fine-grained data to our phenomenological understanding of insight and its associated features in BDD. The findings are discussed with respect to their limitations (e.g. self-report of insight) and implications for future research. The demonstrated dynamics should be considered when diagnosing and treating BDD.

## **Engagement and Response to Smartphone Cognitive Behavioral Therapy for Body Dysmorphic Disorder: What Can We Learn from Passive Smartphone Data?**

**Hilary M. Weingarden, Massachusetts General Hospital and Harvard Medical School, USA**

**Aleksandar Matic, Roger Garriga Calleja & Oliver Harrison, Telefónica Innovación Alpha, S. L., Spain**

**Sabine Wilhelm, Massachusetts General Hospital and Harvard Medical School, USA**

Understanding predictors of treatment response is critical for optimizing CBT. Smartphone-delivered CBT offers a unique avenue for gaining novel insights into treatment predictors, as smartphones can unobtrusively (i.e., in the background, without user input) collect a wide

variety of data related to treatment engagement and behavioral patterns over the course of treatment. To this end, we first sought to characterize typical patterns of engagement with smartphone CBT for body dysmorphic disorder (BDD) (Perspectives), in a 12-week open pilot trial of adults with BDD (N=10). Second, we initially tested how participants' app usage and behavioral patterns corresponded with treatment response. Results showed that most interactions with Perspectives were brief and frequent (i.e., 73% of uses lasted 0-5 mins, app was used for a mean (SD) of 28.7 (15.6) days across treatment). This pattern of engagement is somewhat different from how patients engage in traditional outpatient CBT. Interestingly, results showed that consistent app usage – as opposed to total usage time – correlated strongly with treatment response on the Yale-Brown Obsessive-Compulsive Scale Modified for BDD (BDD-YBOCS),  $r=.64$ ,  $p<.05$ . Moreover, as BDD is characterized by substantial avoidance, we examined changes in users' time spent at home, a potential digital marker of avoidance, via GPS at beginning, midpoint, and endpoint. Time at home decreased across treatment, and decreases in time at home correlated with reductions in BDD-YBOCS scores,  $r=.49$ ,  $p<.01$ . Altogether, results provide initial evidence that consistent (even if brief) practice of CBT skills may be key for optimizing treatment response. Results also initially suggest that improvements across CBT may be detected passively using GPS. Given our small sample, results should be used for hypothesis generation at this stage, to inform testing in larger trials. If validated in a larger trial, GPS could be used to unobtrusively detect clinical improvement or deterioration, enabling just-in-time interventions. Moreover, results could inform how we instruct patients to engage with CBT (e.g., brief daily practice) for optimal response.

## **Recent Advances in Understanding Body Dysmorphic Disorder: a Developmental Perspective**

**Convenor: Georgina Krebs, King's College London, United Kingdom**

**Chair: Amita Jassi, South London and Maudsley NHS Foundation Trust, United Kingdom**

**Discussant: Katharine Phillips, Cornell University, USA**

### **Body Dysmorphic Disorder in the Youth: Prevalence, Psychosocial Impact and Associations with Suicidality**

**Georgina Krebs, King's College London, United Kingdom**

**Tamsin Ford, University of Exeter, United Kingdom**

**Thalia Eley, King's College London, United Kingdom**

**Argyris Stringaris, National Institutes of Health, USA**

**BACKGROUND:** Body dysmorphic disorder (BDD) has been shown to affect approximately 2% of adults and typically has its onset during adolescence. The disorder can have a profound effect on functioning in young people, including withdrawal from leisure activities, social isolation and school absenteeism. Despite the serious impact of BDD, research in youth is sparse. Thus, many fundamental questions regarding the epidemiology and phenomenology of BDD in young people remain unanswered.

**METHOD:** The current study utilised data from a population-based cohort of over 6,000 young people and had several objectives. First, we aimed to establish the prevalence of BDD in youth as this has implications for early detection and service provision. Second, we examined patterns of comorbidity associated with BDD in youth. Third, we tested the extent to which BDD is linked with impaired psychosocial functioning. Fourth, we explored the association of BDD with suicidality.

**RESULTS:** The estimated prevalence of BDD was approximately 2%, and it was significantly more common in girls than boys. The disorder was associated with a range of psychiatric comorbidity and impaired psychosocial functioning. BDD was associated a significant increased risk of suicidality, even when controlling for coexisting psychiatric symptoms.

**DISCUSSION:** BDD is a relatively common condition in youth, especially among adolescent girls, highlighting the need for increased awareness and detection. The presentation of BDD in young people is often complex, with high rates of psychiatric comorbidity and impairment. Furthermore, BDD predicts suicidality independent of other psychopathology, emphasising the need for careful risk assessment and management in this group.

### **Mindfulness and Self-Compassion Protect Against the Adverse Effects of Peer Appearance Teasing on Adolescents' Body Dysmorphic Symptoms**

**Lara Farrell, Carly Roberts, Lara Farrell, Melanie Zimmer-Gembeck, Griffith University, Australia**

This study examined whether peer appearance-related teasing was associated with adolescents' body dysmorphic symptoms (BDS). Further, given that mindfulness and self-compassion have been found to be associated with less body dissatisfaction, we expected these constructs may protect against the negative impact of peer teasing on BDS among adolescents. Participants were 170 Australian high school students (Mage = 15.44 years, 59% female) who completed a survey administered during class time. BDS was measured using the newly developed Multidimensional Youth Body Dysmorphic Inventory (MY BODI), a 21-item measure designed to assess DSM-5 BDD among adolescents, across three sub-scales including Insight/Distress, Preoccupation/Repetitive behaviours, and Impairment/Avoidance. In hierarchical regressions, self-compassion, and two components of mindfulness, describing and being non-judgmental, were uniquely associated with reduced BDS. There was evidence that one mindfulness component, observing, was associated with greater BDS. Furthermore, self-criticism moderated the prospective relationship between teasing and BDS, whereby when self-criticism was high as opposed to low, adolescents were higher in BDS at all levels of peer teasing. Conversely, peer teasing was associated with more BDS at all levels of self-criticism, and had greatest influence on those youth who were lowest on self-criticism, relative to youth higher on self-criticism. Findings will be discussed in light of current cognitive-behavioural models of BDD, highlighting implications for research and practice with youth at-risk for BDD, and well as for those youth seeking treatment.

### **Anxious and Angry Rejection Sensitivity and Body Dysmorphic Disorder Symptoms in Female Adolescents**

**Cynthia Turner, University of Queensland, Australia**

**Benjamin Lewis, Australian Catholic University, Australia**

**Jane Scott, Advanced Psychology Training Institute**

**Jen Hudson, Macquarie University, Australia**

Due to the negative impact that BDD symptoms have upon adolescent development, it is important to investigate potential risk factors for the onset of this disorder. One pertinent risk factor is rejection sensitivity; defined as the tendency to expect, perceive and intensely react to rejection. Rejection Sensitivity can be divided into two separate components: anxious rejection sensitivity and angry rejection sensitivity. This study sought to investigate the relationship between both anxious and angry rejection sensitivity and adolescent BDD symptoms in a large non-clinical sample. A self-report questionnaire was completed by 1008 female Australian adolescents aged between 11 and 18 years

(M=14.11 years). Anxious and angry rejection sensitivity were positively correlated with adolescent BDD symptoms, with anxious rejection sensitivity having a significantly stronger correlation. In a cross-sectional analysis, anxious but not angry rejection sensitivity predicted increased adolescent BDD symptoms when controlling for anxiety symptoms. These results suggest that anxious rejection sensitivity may be more closely related to adolescent BDD symptoms than angry rejection sensitivity.

### **Treatment Outcomes of a Large Sample of Adolescents with Body Dysmorphic Disorder in a Naturalistic Setting**

**Daniel Rautio & Lorena Fernández de la Cruz, Karolinska Institute, Sweden**

**Maria Silverberg Mörsé, Stockholm Health Care Services, Stockholm County Council, Sweden**

**Georgina Krebs, King's College London, United Kingdom**

**Amita Jassi, S. London and Maudsley NHS Foundation Trust, United Kingdom**

**David Mataix-Cols, Karolinska Institute, Sweden**

Body dysmorphic disorder (BDD) is a relatively common disorder in adolescence, with prevalence estimates around 2%. Despite this, few studies have focused on the development and testing of treatments for the disorder in this age group. In the only randomized controlled trial (RCT) to date for adolescents with BDD, cognitive-behavior therapy (CBT) showed to be efficacious, compared to a control condition.

The aim of the current study was to test the developmentally tailored CBT-protocol for BDD used in the previous pediatric RCT in a naturalistic, clinical setting. The study included two national and specialist clinics, experts in the treatment of BDD and related conditions, based in Stockholm (Sweden) and at the Maudsley Hospital in London (England).

A total of 153 young people (120 female) aged 10 to 19 were assessed at one of the two sites and diagnosed with BDD by a specialist team according to DSM-IV criteria. All patients completed clinician-rated interviews (BDD-YBOCS-A) and self-report questionnaires assessing BDD symptom severity, depressive symptoms, and general functioning. The mean BDD symptom severity score at baseline for the whole sample was 32, according to the BDD-YBOCS. About two thirds of the patients (n=100) undergoing the initial assessment undertook CBT treatment at their corresponding specialist clinic. Approximately half of the patients were also on medication during the CBT treatment. Patients were assessed again after completion of the treatment and followed-up 3, 6, and 12 months after the end of the treatment.

Our preliminary results show a significant decrease in BDD symptom severity at post-treatment in those undergoing treatment (mean BDD-YBOCS score at post treatment was 16). A total of 78% of the patients were classified as treatment responders (defined as  $\geq 30\%$  reduction on the BDD-YBOCS) and 54% as full or partial remitters (defined as  $\leq 16$  on BDD-YBOCS) at post-treatment. Improvements were also seen in secondary measures. The improvement was maintained over time from the end of the treatment to the different follow-up time points.

Mirroring the results from the only RCT in pediatric BDD, a protocol-driven CBT treatment shows to be an effective intervention for young people with BDD also in naturalistic, specialist settings. Importantly, improvements are maintained in the long term, up to one year after the end of the treatment.

### **Neurobiological and Personality Underpinnings of Buying-Shopping Disorder**

**Convenor: Astrid Müller, Hannover Medical School, Germany**

**Chair: Astrid Müller, Hannover Medical School, Germany**

**Discussant: Michael Kyrios, Flinders University, Australia**

### **Cue-Induced Craving and Inhibitory Control in Patients with Buying-Shopping Disorder**

**Astrid Müller & Birte Vogel, Hannover Medical School, Germany**

**Patrick Trotzke, University Duisburg-Essen, Germany**

**Sabine Steins-Loeber, University Bamberg, Germany**

**Jana Stenger, University Basel, Switzerland**

**Martina de Zwaan, Hannover Medical School, Germany**

**Matthias Brand, University Duisburg-Essen, Germany**

The current study investigated if mechanisms that play a prominent role in disorders due to substance use or addictive behaviors are relevant in buying-shopping disorder (BSD), particularly cue reactivity, craving, cognitive bias and reduced inhibitory control regarding addiction-relevant cues. The sample consisted of 39 treatment-seeking patients with BSD and 39 healthy control (HC) participants (29 women and 10 men in each group). Subjective responses toward buying/shopping-relevant visual cues were compared in patients vs. control participants.

Experimental paradigms with neutral and semi-individualized buying/shopping-related pictures were administered to assess attentional bias, implicit associations and response inhibition with respect to different visual cues: Dot-probe paradigm (DPP), Implicit Association Task (IAT), Go/nogo-task (GNG). The severity of BSD, craving for buying/shopping, and symptoms of comorbid mental disorders (anxiety, depressive and hoarding disorders) were measured using standardized questionnaires. The BSD-group showed more general craving for buying/shopping, stronger subjective craving reactions towards buying/shopping-related visual cues, and more symptoms of anxiety, depression and hoarding disorder than control participants. Task performance in the DPP, IAT and GNG paradigm did not differ between the two groups. The present findings confirm previous research concerning the crucial role of craving in BSD. The assumption that attentional bias, implicit associations and deficient inhibitory control with respect to buying/shopping-related cues are relevant in BSD could not be proven. Future research should address methodological shortcomings and investigate the impact of acute psychosocial stress and present mood on craving responses, cognitive processing, and response inhibition in patients with BSD.

### **Buying-Shopping Disorder and Comorbid Psychiatric Disorders: Shared and Differential Personality Traits**

**Fernando Fernández-Aranda, University Hospital Bellvitge and the Spanish Biomedical Research Centre in Physiopathology of Obesity and Nutrition, Spain**

**Susana Jimenez-Murcia, University Hospital Bellvitge-IDIBELL and CIBERobn, Spain**

**Roser Granero, Universitat Autònoma Barcelona and CIBERobn, Spain**

The specific etiology of buying-shopping disorder (BSD) is still unknown. Diverse factors have been proposed as likely contributors and the few BSD studies conducted to date have largely been centered on neurobiological factors, personality traits and cultural mechanisms. BSD is prevalent in other psychiatric disorders, such as mood disorders, anxiety disorders, substance use, other impulse control disorders, and eating disorders. Regarding the BSD phenotype, research studies highlight shared common features with other mental disorders (e.g. impulsivity

and other personality traits, dysfunctional emotion regulation, risky behaviors), such as eating disorders and other behavioral addictions (namely pathological gambling). Shared and differential personality traits and general psychopathological symptoms will be explored in this presentation among BSD and other mental disorders in over 5,000 consecutive samples of female patients. In preliminary studies where BSD have been compared with other mental disorders (namely bulimia nervosa –BN- and gambling disorder -GD), high impulsivity traits were shared by most of the groups (BSD, BN+BSD and GD). The extent, to which comorbid presence of BSD predicts poorer outcome to CBT will be presented and discussed.

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### **Compulsive Buying and Hoarding as Identity Substitutes: The Role of Materialistic Value Endorsement and Depression**

**Laurence Claes, University of Antwerp, Belgium**

**Astrid Müller, Hannover Medical School, Germany**

**Koen Luyckx, KU Leuven, Belgium**

In the present study, we investigated whether the relationship between identity confusion and compulsive buying (offline/online) and hoarding is mediated by materialistic value endorsement and depression. The community sample consisted of 254 Flemish adults who completed self-report questionnaires to assess identity confusion (Erikson Psychosocial Stage Inventory), compulsive buying tendencies (Compulsive Buying Scale/short-Internet Addiction Scale, adapted for shopping), hoarding tendencies (Saving-Inventory Revised), materialistic value endorsement (Materialistic Value Scale), and depression (Patient Health Questionnaire-9). We found significant positive associations between identity confusion, compulsive buying, and hoarding. The association between identity confusion and compulsive buying was fully mediated by materialistic value endorsement; whereas depression mediated the association between identity confusion and hoarding. The results suggest that the collection or buying of material goods can be considered as identity substitutes.

### **Psychological Factors in Buying-Shopping Disorder**

**Michael Kyrios, Flinders University, Australia**

**Daniel Fassnacht & Kathina Ali, Flinders University and Australian National University, Australia**

**Bronte McLean, Australian National University, Australia**

**Randy Frost, Smith College, USA**

Introduction: Buying-Shopping Disorder (BSD) is beginning to be recognised as a widespread highly disabling mental condition associated with serious negative psychological, interpersonal, and financial consequences. Various etiological models of BSD have been developed which implicate psychological factors and on which treatments can be based.

Method and results: The current paper presents results using clinical and non-clinical samples from Australia and the USA with a range of measures of BSD severity, examining various factors implicated in the aetiology of BSD. Evidence from correlational and regression studies, as well as experimental studies indicate that gender, depression, buying-related cognitions, self-ambivalence and poor self-esteem are consistent predictors of BSD.

Conclusion: Given limitations to the efficacy of BSD treatments, future treatments need to include specific strategies to target such factors.

### **Cognitive Behavioral Therapy for Buying-Shopping Disorder: Predictors for Treatment Outcome**

**Susana Jimenez-Murcia, University Hospital Bellvitge and the Spanish Biomedical Research Centre in Physiopathology of Obesity and Nutrition, Spain**

Background: Buying-shopping disorder (BSD) is receiving increasing consideration in both consumer and psychiatric-epidemiological research, yet empirical evidence on treatment interventions is scarce and mostly from small homogeneous clinical samples. Objectives: To estimate the short-term effectiveness of a standardized, individual cognitive-behavioral therapy intervention (CBT) in a sample of n=97 treatment-seeking patients diagnosed with BSD, and to identify the most relevant predictors of therapy outcome. Method: The intervention consisted of 12 individual CBT weekly sessions, lasting approximately 45 minutes each. Data on patients' personality traits, psychopathology, sociodemographic factors, and BSD were used in our analysis. Results: The risk of poor therapy adherence was 27.8%. The presence of relapses during the CBT program was 47.4% and the dropout rate was 46.4%. Significant predictors of poor therapy adherence were being male, high levels of depression and obsessive-compulsive symptoms, low anxiety levels, high persistence, high harm avoidance and low self-transcendence. Conclusion: Cognitive-behavioral models show promise in treating BSD, however future interventions should be designed via a multidimensional approach in which patients' sex, comorbid symptom levels and the personality-trait profiles play a central role.

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### **Advances in the Etiology and Treatment of Tourette Disorder**

**Convenor: Jordan Stiede, Marquette University, USA**

**Chair: Jordan Stiede, Marquette University, USA**

**Discussant: Matthew Capriotti, San Jose State University, USA**

### **Determining the Long-Term Effects of Comprehensive Behavioral Intervention for Tics (CBIT)**

**Douglas Woods, Marquette University, USA**

**John Piacentini, UCLA Semel Institute, USA**

**Matthew Specht, Weill Cornell Medicine, USA**

**John Walkup, Northwestern University, USA**

**Flint Espil, Stanford University, USA**

**Jordan Stiede & Christopher Bauer, Marquette University, USA**

**Jennifer Schild, Weill Cornell Medicine, USA**

Comprehensive Behavioral Intervention for Tics (CBIT) is a nonpharmacological treatment option for individuals with tic disorders. Since its development, the efficacy of CBIT has been established in randomized controlled trials in both child and adult populations, with results

showing that an 8 session CBIT intervention significantly lowers tic severity and tic-related impairment compared to a psychoeducation and supportive therapy (PST) condition. Unfortunately, the long-term efficacy of CBIT has not been established. Piacentini et al. (2010) and Wilhelm et al. (2012) reported positive efficacy at 6-months post-treatment, but longer-term follow-up data have not been reported. The current study conducted a 7-10 year follow-up of the original CBIT-child study participants (i.e., those originally reported in Piacentini et al.). An assessment battery, similar to the one utilized in the original CBIT study, was used to assess multiple areas, including demographics, severity of tics, comorbid functioning, and psychosocial functioning. In the original study, participants were either assigned to complete 8 sessions of CBIT or PST at baseline. Of the 126 original CBIT-child study participants, 80 participated in the 7-10 year follow-up study. Data are all collected and being prepared for analysis. A 2 (treatment condition) x 2 (responder status at posttreatment) x 3 (pre, post, 7-10 year follow-up assessment) mixed analysis of variance (ANOVA) will be conducted to evaluate impact on tic severity at follow-up.

### **Intensive Exposure Treatment for Tic Disorders and Its Underlying Working Mechanisms**

**Cara Verdellen, PsyQ Nijmegen and TicXperts, the Netherlands**

**Jolande van de Griendt, TicXperts, the Netherlands**

**Annet Heijerman, Dutch Knowledge Centre for Child- and Adolescent Psychiatry and Dutch Tourette Association, the Netherlands**

**Danielle Cath, GGZ Drenthe, the Netherlands**

**Chaim Huyser, De Bascule, the Netherlands**

**Lisbeth Utens, De Bascule and University of Amsterdam, the Netherlands**

**Marc Verbraak, Pro Persona Nijmegen and Radboud University Nijmegen, the Netherlands**

Behavioral treatment for tics is considered a first-line intervention for tic disorders (Roessner et al., 2011; Verdellen et al., 2011). Despite demonstrated efficacy, there is room for improvement on tic reduction and a need to optimize treatments. Behavioral treatments intervene in the sequence of unpleasant sensations or 'tic alarms', the subsequent tic and the following decrease of the sensation. In exposure and response prevention (ERP) patients learn to suppress their tics for a long time (response prevention), while the focus remains on these sensations (exposure). This allows the patient to learn to tolerate these sensations, resulting in a reduction of tics. Recent insights into possible working mechanisms are discussed. Research seems to indicate that habituation is not a mechanism by which ERP works (van de Griendt et al, in preparation). An alternative explanation may be inhibitory learning or cognitive change. Intensive ERP may accelerate or enhance this learning process. A brief intensive group-based exposure treatment program for children and adolescents (9-17 years) with tic disorders was tested in the Netherlands into its feasibility and acceptability. The aim of the pilot study (funded by Tourettes Action) was to explore if this intensive treatment, consisting of 3 consecutive days and 1 booster day after 1 week, reduces tics and family stress, and improves quality of life, emotional and behavioral functioning and treatment satisfaction. The program, named Tackle your Tics, consists of intensive ERP, the ERP training app BT-Coach, psychoeducation, coping strategies, relaxation activities, group support and parent meetings. Two groups followed the program in September 2018 and February 2019 (N=14). Preliminary data seem promising.

Griendt, J., van de, Berg, N., van den, Verdellen, C., Cath, D., & Verbraak, M. (in preparation). The working mechanism of exposure and response prevention in the treatment of Tourette syndrome and other tic disorders revisited: no evidence for habituation to premonitory urges.

Roessner, V., Rothenberger, A., Rickards, H. & Hoekstra, P.J. (2011). European Clinical Guidelines for Tourette Syndrome and other tic disorders. *European Child and Adolescent Psychiatry* 20, 153-154.

Verdellen, C., Griendt, J. van de, Hartmann, A., Murphy, T., & ESSTS guidelines group (2011). European clinical guidelines for Tourette syndrome and other tic disorders. Part III: Behavioural and psychosocial interventions. *European Child and Adolescent Psychiatry*, 20, 197–207.

### **Risperidone Versus Exposure and Response Prevention in the Treatment of Tic Disorders - a Randomized Single-Blinded Trial**

**Jolande Van de Griendt, TicXperts, the Netherlands**

**Agnes Wertenbroek, Ziekenhuis Groep Twente, the Netherlands**

**Danielle Cath, GGZ Drenthe, the Netherlands**

**Cara Verdellen, PsyQ, the Netherlands**

**Judith Rath, LangeLand Ziekenhuis, the Netherlands**

**Irene Klugkist, Universiteit Utrecht, the Netherlands**

**Bas de Bruijn, Haga Ziekenhuis, the Netherlands**

**Marc Verbraak, Radboud University Nijmegen, the Netherlands**

In the treatment of Tourette Syndrome, pharmacotherapy is a frequently used treatment strategy. The atypical antipsychotic that has been most extensively studied in relation to the treatment of tics, Risperidone, can be considered as an A-level drug with a high quality of evidence. At this time, it is also the most commonly prescribed medication for tics by European experts (Roessner et al., 2011). Behaviour therapy has shown to be an effective and promising treatment in tics and Tourette Syndrome as well. Many patients with tics experience an unpleasant premonitory urge right before a tic. Behaviour therapy is designed to intervene in the negative reinforcement cycle of this sequence of “premonitory urge – tic - relief of urges”. Exposure and Response Prevention (ERP) (Verdellen, Keijsers, Cath, & Hoogduin, 2004) is a behavioural intervention, consisting of tic suppression (“response prevention”) while being optimal exposed to premonitory urges (“exposure”). ERP has shown good treatment effects and is recommended in treatment guidelines as a first-line psychological intervention for tics, as is habit reversal treatment (HRT) (Verdellen, van de Griendt, Hartmann, & Murphy, 2011). In a randomised, single-blinded, controlled study, behaviour therapy (ERP) was compared with pharmacotherapy (Risperidone) with respect to tic severity and quality of life as assessed during pre-treatment, post-treatment, and at follow-up. Also, side effects and dropout rates were considered. A total of 33 participants were randomly assigned either to ERP (n=17; 12 weekly, 1-hour sessions) or Risperidone (n=16; flexible dosage of 1-6 mg). Bayesian statistics were used and showed that both treatments were equally effective with respect to tic severity, both post treatment and at follow-up. Dropout rates were equally divided in both conditions, yet significantly more side effects were found in the medication condition; patients were more bothered by side effects as tiredness, increased fatigability, inner tension, headache, and weight gain when using medication. The present study suggests that behaviour therapy and medication could be offered as equally viable options in the treatment of tic disorders. Depending on the patients preference, motivation, and the availability of the treatment, both ERP and Risperidone can be advised, with some caution with respect to side effects of medication.



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Verdellen, C., van de Griendt, J., Hartmann, A., & Murphy, T. (2011). European clinical guidelines for Tourette syndrome and other tic disorders. Part III: behavioural and psychosocial interventions. *European Child & Adolescent Psychiatry*, 20(4), 197-207.

### **Cognition and Meta-Cognition in Onset and Management of Tic Disorders**

**Kieron O'Connor, University of Montreal, Canada**

**Julie Leclerc, University of Quebec at Montreal, Canada**

**Marc Lavoie, University Institute of Mental Health at Montreal, Canada**

**Philippe Valois, University of Quebec at Montreal, Canada**

**Bruno Gauthier, University of Montreal, Canada**

**Laurie Bonenfant-Menard, University Institute of Mental Health at Montreal, Canada**

Although behavioural factors have grown in importance in the understanding and controlling of tic disorders, cognitive and meta-cognitive factors also have a proven role. For example the way people think and evaluate their tics and evaluate the situations producing tics are key triggers in onset. Recent research has shown that although physical situations producing tics are idiosyncratic, exploring the way that these situations are individually evaluated allows for a more systematic pattern to emerge. A personal construct analysis has revealed that personal low and high risk situations for tic onset are perceived differently and that often controlled situations are linked to different cognitive and metacognitive associations. In addition expectancies, anticipations, beliefs and interpersonal perceptions may inhibit or facilitate tic onset. The Cognitive psychophysiological model of tics (CoPs) integrates these insights into an embodied cognition model of tics, where cognitive feed forward and feedback determines a style of approaching action often producing tension and tic onset. This style of action has been operationalised by the style of planning action (STOP) questionnaire which comprises 3 dysfunctional styles characteristic of tic disorders: namely: over preparation; over activity; and over complexity in planning action. These styles of planning can produce tension which can lead up to tic onset. Hence the CoPs treatment program addresses these dimensions in order to reduce prior tension and eliminate tic onset. There are 10 steps to achieving this goal including: physiological; cognitive and behavioural strategies. An RCT compared this approach with the current CBIT approach in children and adults. Preliminary data are presented here on the first 40 completers. Results showed that CoPs and CBIT were equally effective in reducing tics as measured by the Yale global Tic Severity Scale (YGTSS) but the CoPs approach showed a great effect size for the adults and further reduction at 6 months follow up. Changes in style of planning action was a predictor of further reduction at follow-up. Integrating cognitive factors into current behavioural approaches seem advantageous. Ways of combining cognitive and behavioural aspects in achieving incompatible response, which is antagonist to tension are elaborated.

### **Symposia 7: Old Age/Neurobehavioral Disorders**

#### **Recent Developments in Dementia Family Caregiving Research: Understanding and Targeting Emotional and Physical Health Risk Factors**

**Convenor: Isabel Cabrera, Universidad Autónoma de Madrid, Spain**

**Chair: Rosa Romero-Moreno, King Juan Carlos University, Spain**

**Discussant: Brent Mausbach, University of California, San Diego, USA**

#### **The Health and Psychosocial Problems Spousal Carers of People with Dementia Present to Their General Practitioner During the Dementia Care Trajectory. A Longitudinal Analysis of General Practice Records**

**Karlijn Joling, Iris van der Heide, Anneke Francke, Robert Verheij, Marianne Heins & Hein van Hout, Amsterdam University Medical Center, the Netherlands**

**Background:** Providing informal care for a relative with dementia can be physically and psychologically burdensome, particularly for spouses of people with dementia. However, large population-based studies examining the type of health and psychosocial problems in family caregivers during the dementia care trajectory are scarce.

**Objective:** This study examined the prevalence of health and psychosocial problems which cohabiting spouses of people with dementia present to their general practitioner during the care trajectory from one year prior the diagnosis of dementia up to six years after the diagnosis, in comparison with a matched comparison group of older people with a spouse without dementia. In addition, we evaluated whether problems changed during two important event: institutionalization and death of the person with dementia.

**Methods:** People with incident dementia were identified from medical records of general practitioners who participated in the NIVEL primary care database, covering 10% of the Dutch population. Spouses were identified by the presence of the same address as the person with dementia and an age difference of less than 20 years. Information from nationwide administrative databases was linked to determine the date of institutionalization and death of the person with dementia. Contact diagnoses from the electronic medical records of the spouses were analyzed with regression analyses to determine the prevalence of health problems during the trajectory and compare rates with a matched control group.

**Results:** A total of 1785 spouses and 6408 comparison spouses were identified. During the care trajectory, spouses of people with dementia contacted their GP on average 9 to 12 times per year from the year before dementia diagnosis up to 6 years after diagnosis compared to 8 to 10 times in the comparison group ( $p < 0.005$ ). Urinary infection, excessive ear wax, cough, sleep disturbance, partner illness problem, and loss/death of partner problem were the most frequent reasons for spouses to contact their GP and were consistent during the care trajectory. A problem with the illness and loss/death of their partner and sleeping disturbance were significantly more often presented by spouses of persons with dementia compared to matched comparison spouses. The year before and after institutionalization and death of the person with dementia, a partner illness problem and loss/death of partner problem were most prevalent in dementia spouses.

**Conclusion:** Spouses with dementia contact their GP more often and present problems with the illness and loss or death of their partner more frequently than spouses of people without dementia. Other health and psychosocial problems they presented frequently were similar to the problems presented by the comparison group.

### **Associations Between Familism and Pleasant Leisure Activities with Biomarkers of Cardiovascular Risk. Preliminary Data of the Caregiving Spanish Longitudinal Study (CUIDA-LONG)**

**Rosa Romero-Moreno & Carlos Vara-García, Universidad Rey Juan Carlos, Spain**

**Javier Olazarán, Hospital Gregorio Marañón, Spain**

**Brent Mausbach, University of California, USA**

**Roland von Kanel, UniversitätsSpital Zürich, Switzerland**

**Eloisa Navarro, Hospital Infanta Leonor, Spain**

**María María del Sequeros Pedroso-Chaparro & Andrés Losada, Universidad Rey Juan Carlos, Spain**

Caring for a relative with dementia has been related to increased morbidity, particularly an increased cardiovascular disease (CVD) risk. Circulating C-reactive protein (CRP), reflecting low-grade inflammation, is a well-established biomarker of an increased CVD risk. The sociocultural stress and coping model adapted to caregiving (Knight and Sayegh, 2010) has highlighted the importance of considering specific cultural values for a better understanding of the stress process. Specifically, familism in terms of familial obligations is a cultural value that has been associated with higher levels of emotional problems. However, studies analyzing the role of familial obligation as predictor of cardiovascular risk (specifically, through biomarkers of CVD risk) are lacking.

The aim of this cross-sectional study was to conduct preliminary analyses of the effects of familial obligation and pleasant leisure activities on C-reactive protein (CRP) levels after controlling for kinship and established risk factors for CVD, including health behaviors and stressors. Multiple regression analyses were conducted using the data of the Caregiving Spanish Longitudinal Study (CUIDA-LONG) collected at baseline. Participants were 80 caregivers caring for a spouse ( $n=30$ ) or a parent ( $n=50$ ) with dementia (mean age=59.7 years;  $S.D.=12.9$ ; 67.1% females).

Results showed that among spousal caregivers higher levels of familial obligations ( $p=0.05$ ) and being male ( $p=0.04$ ) were associated with higher CRP levels, after controlling for age, body mass index (BMI), physical exercise, stressors (daily time spent on care, duration of caregiving, distress associated with behavioral problems) and pleasant leisure activities. However, among child caregivers, higher BMI ( $p=0.01$ ), male sex ( $p=0.03$ ) and lower frequency of leisure activities ( $p=0.04$ ) were associated with higher CRP levels after controlling for the above covariates. The explained variance of CRP levels in the final fully adjusted model was 15.1% and 42.5% for spousal and child caregivers, respectively. There were no significant effects of familism or pleasant leisure activities on CRP when considering the total caregiver sample.

The findings of this study highlight the importance of considering cultural and behavioral variables when analyzing the effects of dementia caregiving on cardiovascular health, specifically considering different kinship profiles. Although the results are preliminary and should be considered with caution, the findings suggest that in spousal caregivers a higher familial obligation may contribute to explain a higher cardiovascular risk, whereas in child caregivers low frequency of leisure activities is associated with higher cardiovascular risk. Practical implications in order to improve caregivers' cardiovascular health will be discussed.

### **Attentional Bias Related to Emotional Distress in Dementia Family Caregivers**

**Isabel Cabrera, María Márquez-González, Laura Gallego-Alberto & Ana Pérez-Miguel, Universidad Autónoma de Madrid, Spain**

**Samara Barrera-Caballero, María del Sequeros Pedroso-Chaparro & Carlos Vara-García, Universidad Rey Juan Carlos, Spain**

**Beatriz Simón, Universidad Autónoma de Madrid, Spain**

**Introduction:** Cognitive theories of anxiety point out that biased attention plays a central role in the development and maintenance of anxiety (e.g., Mathews & MacLeod, 2005). Specifically, clinical and subclinical individuals are likely to pay relatively more attention to negative information. However, the relation between attentional bias and emotional distress has been scarcely explored among family caregivers of persons with dementia. Being a family dementia caregiver has been considered to be a chronic stressful situation, linked with negative psychological consequences. The aim of this study was to explore the relation between attentional bias and anxiety symptomatology, guilt, ambivalent feelings, and experiential avoidance in caregiving in a sample of dementia family caregivers.

**Method:** The sample was composed of 228 caregivers of a relative suffering dementia. The mean age of the participants was 63 years ( $SD=12.9$ ) and most of them were women (67.1%). An adaptation of the attentional dot-probe task was created. First, a scenario related to the caregiving situation that could elicit negative emotions appeared in the computer screen (e.g., "Yesterday I screamed at my relative because he/she did not want to go to bed after dinner"). Participants were instructed to read the sentence and press the space bar to continue. Second, two words stimuli appeared, one negative and the other neutral, in different locations on the screen, during 500 ms. Both words were related to the scenario (e.g., negative word: mistake; neutral word: pyjamas). Third, a probe appeared in the same spatial location as one of the previous stimuli, with participants having to identify it ("E", "F"). Finally, in some trials a Yes/No questions related with the scenario were presented, in order to test whether participants had read the sentences.

**Results:** Participant's sample were divided into high and low anxiety symptomatology, guilt, ambivalent feelings and experiential avoidance groups using the medians of each variable. As expected, caregivers with high levels of anxiety paid attention to negative words, in contrast to caregivers with low levels of anxiety ( $p=.008$ ). A similar trend was found with guilt about failing to meet the challenges of caregiving ( $p=.068$ ) and ambivalent feelings ( $p=.061$ ). Finally, caregivers with high levels of experiential avoidance in caregiving trended ( $p=.069$ ) to present an attentional avoidance of negative words.

**Discussion:** Caregivers reporting high levels of anxiety presented a tendency to pay attention to negative information. This result is consistent with the literature of cognitive bias and anxiety disorders and extends the evidence to the dementia family caregiving research. Furthermore, caregivers with high levels of guilt and ambivalence feelings also seem to present an attentional preference for negative information, whereas caregivers reporting high levels of experiential avoidance seem to present the opposite pattern. These results point out the relevance of the analysis of emotional information processing to increase our understanding of the emotional distress in the dementia family caregiver population.

### **Effectiveness of a Telephone-Based Cognitive-Behavioral Therapy for Family Caregivers of People with Dementia: A Three-Year Follow-Up**

**Franziska Meichsner, Goethe University Frankfurt and Friedrich Schiller University Jena, Germany**

**Gabriele Wilz, Mareike Sittler, Christina Theurer & Nils F. Töpfer, Friedrich Schiller University Jena, Germany**

**Background:** Cognitive-behavioral therapy (CBT) for family caregivers of people with dementia has been found to be effective across various outcome measures, yet investigations into the long-term effects of these interventions remain scarce. It was therefore the purpose of the present study to evaluate whether Tele.TAnDem, a telephone-based CBT intervention for family caregivers of people with dementia, yields positive effects three years after intervention onset.

**Method:** 273 family caregivers of people with dementia were randomly assigned to receive the intervention (IG) or usual care (CG). IG participants received twelve 50-min sessions of individual CBT by trained psychotherapists over 6 months. Symptoms of depression (CES-D), physical health symptoms (GBB-24), challenging behavior (BEHAVE-AD), quality of life (WHOQOL-BREF), utilization of psychosocial resources (RES), burden of care, coping with the care situation, and emotional well-being (visual analogue scales) were assessed again three years after baseline. Data were analyzed using generalized ANCOVA.

**Results:** 164 participants (IG: n = 83, CG: n = 81; 60% of the baseline sample) participated in the three-year follow-up. Based on changes in the caregiving situation at three-year follow-up, we divided the sample into three subgroups: “still caring at home” (n = 52), “nursing home placement of the care recipient” (n = 29), “bereaved caregivers” (n = 83). Positive effects were found for Tele.TAnDem in the subgroup of caregivers “still caring at home” (on burden of care, coping with challenging behavior, social relationships QoL-domain) and “bereaved caregivers” (on overall QoL and physical health QoL-domain) compared to the CG. However, IG participants who decided for “nursing home placement of the care recipient” had poorer outcomes on a few measures (overall QoL, psychological health, utilization of resources related to well-being).

**Discussion:** It is impressive that CBT for family caregivers of people with dementia consisting of 12 telephone-based sessions yielded positive effects in caregivers still caring at home and bereaved caregivers in the first study investigating long-term effects three years after baseline. The particular suitability of CBT for helping dementia caregivers develop cognitive and behavioral skills for managing their complex and demanding roles will be discussed. Many different challenges arise over the course of the different caregiving trajectories with changes in the caregiving situation being probably particularly influential. Thus, it is not surprising that effects of Tele.TAnDem which have been found at earlier assessments (post-test, six-month follow-up) were not maintained at three-year follow-up and not in all groups of caregivers. We will provide some ideas on how effects could be further sustained and discuss the need for further investigating the impact of changes in the caregiving situation including the potential negative psychological impact of nursing home placement on IG participants.

## **Older Adults: Schema Theory and Schema Therapy**

**Convenor: Ian Kneebone, University of Technology Sydney, Australia**

**Chair: Arjan Videler, Tilburg University, the Netherlands**

### **Schema Theory and Older Adults: A Preliminary Study**

**Ian Kneebone & Katelyn Phillips, University of Technology Sydney, Australia**

**Robert Brockman, Australian Catholic University, Australia**

**Phoebe Bailey, Western Sydney University, Australia**

Particularly with respect to personality disorder, as a means of understanding psychopathology schema theory is well established in younger adults. Evidence demonstrating its relevance to older adults is minimal however. We investigated whether consistent with the schema mode model, schema modes were associated with psychopathology in older adults and whether maladaptive modes were associated with unmet needs in this population. Further we considered whether the relationship between maladaptive schema modes and unmet needs is mediated by the healthy adult mode of responding. Participants were N = 104 older adults recruited via an established database. They completed questionnaires assessing psychopathology (GDS: Geriatric Depression Scale; GAI: Geriatric Anxiety Inventory and the Germans' (Personality) Screener, schema modes (YAMI: Young-Atkinson Mode Inventory) and basic psychological needs (BPNS: Basic Psychological Needs Scale - autonomy, competence and relatedness). As predicted maladaptive child modes (angry and vulnerable child) were associated with increased psychopathology and the healthy adult schema mode with reduced psychopathology. The healthy adult schema mode was also found to mediate the relationship between maladaptive child modes and needs satisfaction. We conclude that, consistent with schema theory, the presence maladaptive child modes makes it difficult for an older adult to have their needs met, and that the presence of healthy adult mode, works to support this.

### **Schemas in Older Adults: What Structures Apply?**

**Marjolein Legra, Maastricht University and GGz Breburg, the Netherlands**

**F.R.J. Verhey, Alzheimer Center Limburg and School for Mental Health and Neuroscience, the Netherlands**

**S.P.J. van Alphen & G. Rossi, F., Free University of Brussels, Belgium**

Schema-theory and schema-therapy developed by Young (1994) provides us with a widely accepted framework for the effective treatment of persons with personality disorders. However, when it comes to older people (>60), literature is scarce. At this point we do not know if the maladaptive schemas can be generalized to the elderly or whether schemas change during the life course and especially into old age. First the results of a Delphi study will be presented. The concepts of schema triggering and schema coping during the life course will be explicated; schemas are constructs that can fade or intensify due to multiple factors. Second results will be presented of our study on the schema-structure in a nonclinical aging population in the Netherlands (N=240) using the Dutch Schema Questionnaire for the Elderly (YSQ-SFE). Data were analysed by Mokken Scale Analysis.

Legra, M.J.H., Verhey, F.R.J. & van Alphen, S.P.J. (2017). A first step toward integrating schema theory in geriatric psychiatry: a Delphi study. *International Psychogeriatrics*, 29(7), 1069–1076.

Legra, M.J.H., Verhey, F.R.J., van Alphen, S.P.J. & Rossi, G. (2018). Exploration of Youngs Schemata in a nonclinical elderly population; respondent and informant information. Article in preparation.

### **Schema Therapy in Older Adults**

**Arjan Videler, Tilburg University and GGz Breburg, the Netherlands**

Schema therapy is an effective treatment for personality disorders and other complex disorders in adults. Nevertheless, until recently, schema therapy has been neglected as a treatment option for older adults. First, results of a multiple baseline case series study (N=8) in older adults with cluster C personality disorders (63-76 years) will be discussed. Schema therapy appears effective in the treatment of cluster C personality disorders in older adults. Then, a protocol of an ongoing study into schema therapy for borderline personality disorder in later life is presented. Finally, a review will be given of the literature on age-specific adaptations of schema therapy in older adults. Although the first test of effectiveness of schema therapy in older adults is encouraging, age-specific adaptations of existing therapy protocols, both for individual and group schema therapy, are wanted. Integrating age-specific moderators for change, such as wisdom enhancement, attitudes to aging, and especially positive schemas, deserves recommendation.

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Videler, A.C., van Royen, R.J.J., Legra, M.J.H., & Ouwens, M.A. (submitted). Positive schemas in older adults: clinical implications and research suggestions.

### **Group Schema Therapy: Modifications for Older Adults with Personality Disorders**

**Sylvia Heijnen-Kohl, Mondriaan Hospital, the Netherlands**

Only recently, group Schema therapy protocols have been applied to older adults. One version of such a protocol is Schemafocused Cognitive Behavioral Therapy for Groups (SCBT-g; Broersen & Van Vreeswijk 2012). It is found to be associated with an improvement of early maladaptive schemas and psychological symptoms in elderly patients with recurrent mood disorders and personality disorder features. Compared to younger adults however, the effectiveness appears to be less. Therefore suggestions for adjustments of the protocol for older adults were made to enhance its effectiveness. These suggestions are based on studies (Videler et al, 2014; Videler, van Royen, van Alphen, Rossi, & van der Feltz-Cornelis, 2017) as well as on clinical experience. A new protocol for group schema therapy for older adults has been developed and is currently carried out. Preliminary results will be discussed.

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### **Improving Mental Health Treatment for Older Adults: Age-Specific Considerations and New Interventions**

**Convenor: Brooke Schneider, Friedrich Schiller University, Germany**

**Chair: Brooke Schneider, University Medical Center Hamburg-Eppendorf, Germany**

#### **How Does a Patient's Age Influence Treatment Attitudes of Psychotherapists?**

**Eva-Marie Kessler, & Christin Blachetta, Medical School Berlin, Germany**

**Objectives:** Ageism on the part of service providers has been widely cited as an important factor limiting access to and adequate quality of mental health services for old, especially very old adults. The objective of this study was to analyze how treatment attitudes depend on age cues in patients' descriptions.

**Method:** A sample of psychotherapists-in-training (N=114) responded to questions concerning a naturalistic case vignette of a male patient with symptoms of depression. Based on random assignment, participants either read the original (real-life) case description including very-old age cues ('very-old patient condition') or the manipulated case description ('middle-aged patient condition') which was identical with the exception that the most salient age cues were replaced by a younger chronological age of the patient (52 years) and age-neutral cues (e.g., "black hair" instead of "light grey hair"). All other aspects of the vignette including the patient's psychological symptoms and medical conditions were kept constant.

**Results:** Participants showed less favorable attitudes towards the patient in the 'very-old patient condition' relative to the patient in the 'middle-aged patient condition', as indicated by more negative affect, less conviction in the treatability of the patient, a poorer prognosis, less interest in treatment provision as well as less subjective treatment competence.

**Conclusion:** Mental health care providers' 'age bias' continues to be a problematic factor in psychotherapy with older adults. An "age-aware education" for psychotherapists is needed for better realizing the potentials of psychotherapy with older adults.

#### **Age-Appropriate Cognitive Behavioral Therapy: Exploring the Use of 'Lifeskills' with the Oldest-Old to Enhance Outcome**

**Kenneth Laidlaw, University of Exeter, United Kingdom**

CBT is particularly appropriate as an intervention for older people as it is skills enhancing, present-oriented, problem-focused, straightforward to use and effective. While depression and the anxiety disorders in later life are often misunderstood as a 'natural' consequence of challenges and losses associated with ageing. Process research has very often overlooked the psychological needs of the oldest-old. This talk addresses that omission and considers how to enhance the power of CBT for older people to bring about positive changes especially in regard to age-related challenges. This talk introduces a specific approach to using timelines in CBT with older people and promotes the use of lifeskills. Lifeskills are emotional and psychological resources that the client brings into therapy. This is a relatively simple idea where we recognise that our older clients have lived longer than the therapist and as such will have likely faced and overcome many adversities over their lifetime (e.g. loss of spouse, changes to physical health and independence, role status change etc.). The therapist, as they are younger than their client, will not yet have faced such challenges. This approach promotes a collaboratively empirical approach in therapy and facilitates a strong working alliance. The lessons learned in overcoming adversity in the past can be used by the therapist to enable older people to better manage their current problems in the here and now. The use of the timeline technique and the cultivation of the concept of lifeskills encourages self-acceptance and promotes symptom reduction.

#### **Metacognitive Training for Late Life Depression (MCT-Silver): Results of a Pilot Study and Further Development**

**Lara Bucker, Lena Jelinek, Evangelos Karamatskos, Sönke Arlt & Brooke Schneider, University Medical Center Hamburg-Eppendorf, Germany**

Depression remains one of the most prevalent psychological disorders among adults 60 years and older. Although older adults report interest in psychotherapy, a significant treatment gap exists with only a minority receiving psychotherapy. Moreover, use of antidepressants to treat geriatric depression is limited because of known risks such as adverse events due to polypharmacy and age-related physiological changes. As such, there is increasing interest in the development of low-threshold group interventions, particularly those, which can be readily integrated into existing proximate mental health settings (e.g., primary care, senior living facilities). The acceptance and feasibility of MCT for

depression (D-MCT) as an add-on intervention was tested in a pilot study among older adults participating in an intensive inpatient psychiatric treatment program (Schneider et al., 2018, *Zeitschrift für Klinische Neuropsychologie*). Based on these findings, we adapted a new version of D-MCT specifically for depression in later life (MCT-Silver; [www.clinical-neuropsychology/mktsilber](http://www.clinical-neuropsychology/mktsilber)). MCT-Silver is a low-threshold, cognitive-behaviorally based group intervention, which aims to reduce depressive symptoms by targeting depression-related (meta-)cognitive biases. Specifically developed for geriatric depression, MCT-Silver adopts a gerontological perspective to address issues relevant to later life (e.g., coping with loss, retirement and role changes, physical decline). Moreover, MCT-Silver includes modules drawn from third-wave therapies on acceptance, identification of values, and imagery rescripting. MCT-Silver is structured so that professionals working in a variety of healthcare settings can easily use it, yet it can be tailored for specific groups of older adults. The study protocol for a randomized control trial examining the efficacy of MCT-Silver in comparison to an active control (cognitive remediation) among community-dwelling older adults with depression will be presented.

### **Exploring Potential Mechanisms of Change in Complicated Grief Treatment for Older Adults**

**Franziska Meichsner, Friedrich Schiller University, Germany**

**Christine Mauro, M. Katherine Shear & Natalia Skritskaya, Columbia University, USA**

**Background & Objective:** Main symptoms of ICD-11 Prolonged Grief Disorder (PGD) are pervasive intense yearning or longing, or persistent preoccupation with the deceased that persist at least six months after bereavement. Complicated Grief Treatment (CGT) is an efficacious treatment for PGD. The treatment model posits that PGD results from impediments to adaptation following loss (e.g., maladaptive cognitions, dysfunctional behaviors, emotion regulation problems, or social problems) and CGT targets the resolution of these impediments. It was the aim of the present study to explore potential change mechanisms of CGT.

**Method:** We performed secondary analyses with assessment completers ( $n = 131$ ) from a randomized-controlled trial that tested the efficacy of CGT for older adults. Patients received 16 sessions of CGT or Interpersonal Therapy (IPT). Outcomes were reductions in PGD symptoms and grief-related related impairment, and treatment response. Reductions in avoidance, maladaptive-grief-related cognitions, and negative thoughts about the future were explored as mediators.

**Results:** Reductions in avoidance between baseline and week 16 mediated reductions in PGD symptoms (proportion mediated 26.3%, CI [3.3, 56.0]) and grief-related impairment (28.3%, CI [3.1, 100.0]); reductions in maladaptive grief-related cognitions over the same period mediated treatment response (25.2%, CI [6.1, 54.0]), reductions in PGD symptoms (27.7%, CI [6.5, 58.0]) and grief-related impairment (32%, CI [6.3, 98.0]). Hypotheses regarding the mediational role of negative thoughts about the future were not confirmed.

**Conclusion:** The positive effects of CGT are at least partly due to reductions in avoidance and maladaptive grief-related cognitions. CGT was more successful than IPT at achieving these reductions, probably because it includes interventions designed for this purpose. Results are consistent with the treatment model and previous research. They imply that PGD treatments need to include interventions that change maladaptive cognitions related to grief and the death and resolve avoidance.

### **Initial Evaluation of Mobile Application-Based Intervention for Depression in Middle Aged and Older Adults**

**Christine E. Gould, Department of Veterans Affairs Palo Alto Healthcare System and Stanford University, USA**

**Chalise Carlson, VA Palo Alto Health Care System, USA**

**Flora Ma, VA Palo Alto Health Care System & Palo Alto University, USA**

**Riku Lindholm & Kristian Ranta, Meru Health, USA**

**Ruth O'Hara, Stanford University and VA Palo Alto Health Care System, USA**

Technology-based approaches represent a promising strategy to improve dissemination of evidence-based mental health treatments for adults of all ages. We examined the feasibility and acceptance of a mobile-based app intervention (Meru Health Ascend Program) for depression among middle aged and, for the first time, among older adults. The Meru Health Ascend Program is a mobile-app based intervention delivered across 8 weeks in an anonymous group format. Users have access to video instructional content and guided practices that provide cognitive behavioral and mindfulness techniques to manage depressive symptoms and related symptoms such as worry. In this hybrid technology intervention, users have access to a therapist, as needed, who provides guidance throughout the program. They also may use a moderated discussion board in the app where group members can share their thoughts and experiences. Eligible study participants were aged 40 years or older, experiencing moderate to severe depressive symptoms (Patient Health Questionnaire 9-item; PHQ-9  $\geq 10$ ), smartphone owners, and California residents. Exclusion criteria assessed via a telephone screen were: the presence of psychosis, alcohol abuse, cognitive impairment, active suicide ideation with a plan, and ongoing psychotherapy. The study included three assessment timepoints: baseline, 4 weeks (phone), and 8 weeks. At the baseline visit, the Mini International Neuropsychiatric Interview was administered followed by depression measures, anxiety measures, and the Mobile Device Proficiency Questionnaire. Fifty-six individuals were screened by phone, 24 were eligible, and 20 enrolled in the study. Enrolled participants had a mean age of 61.7 years ( $SD = 11.3$ , Range 42-81 years) and 70% were female, 55% were white/non-Hispanic, 40% were working part or full time. Seventy percent met criteria for current major depressive disorder (MDD), 20% had past but not current MDD, and two individuals did not meet criteria for MDD past or current. Participants' PHQ-9 ( $M = 13.90$  ( $SD = 4.25$ ), and Generalized Anxiety Disorder Scale scores ( $M = 12.10$ ,  $SD = 4.24$ ) correspond to moderate levels of depressive and anxiety symptoms. Findings from the depression and anxiety measures administered at 4 and 8 weeks will be presented and discussed. At the final assessment, participants completed a semi-structured qualitative interview about the program. Of the 15 participants completing the program to date, 73% believed that it somewhat or completely met their expectations. Qualitative findings highlight the perceived benefits including greater patience, increased awareness of negative thoughts, and encouragement of self-care. Practices and therapist chat were identified as the most helpful component by 60% and 40% of participants, respectively. Qualitative findings also revealed technology challenges that participants encountered with recommended program modifications. Our findings indicate that the Meru Health Ascend Program was acceptable to most participants. Further refinement of the program, including improved technical support, would address feasibility issues that arose and are particularly relevant to older participants. Modifications such as compatibility with tablets to facilitate use of a larger screen would assist older adults with vision difficulties. Overall, programs such as this, have the potential to be scalable.

## **Symposia 8: Children & Adolescents**

### **Collaborative and Proactive Solutions as an Alternative to Parent Management Training for Youth with Oppositional Defiant Disorder: A Comparison of Therapeutic Models**

**Convenor:** Anna Dedousis-Wallace, University of Technology Sydney, Australia

**Chair:** Brechtje de Mooij, University of Amsterdam, the Netherlands

**Discussant:** Ross Greene, Virginia Polytechnic Institute & State University, USA, and University of Technology Sydney, Australia

#### **Testing Multiple Conceptualizations of Oppositional Defiant Disorder in Youth**

**Thomas Ollendick, Virginia Polytechnic Institute & State University, USA, Australia**

**Sarah Ryan Radtke, Virginia Polytechnic Institute & State University, USA**

**Jordan A. Booker, University of Missouri, USA**

**Introduction:** Oppositional-defiant disorder (ODD) is a commonly diagnosed childhood psychiatric condition that is characterized by a pattern of negativistic, hostile, and defiant behavior (American Psychiatric Association, 2004; 2013; Murrihy, Kidman, & Ollendick, 2010) that can impact social, emotional, and academic performance during childhood and persist into adulthood if left untreated. Recent theories conceptualize ODD as a two-dimensional construct with angry/irritable (i.e., affective) and argumentative/defiant (i.e., behavioral) components. This view has been supported by studies of non-referred youth but not studies of clinic-referred youth. In a reanalysis of data regarding children who received one of two psychosocial ODD treatments (Ollendick et al., 2016), we examined whether children showed improvements across these ODD dimensions; and whether main and joint effects of ODD dimension improvement predicted clinical outcome.

**Methods:** One-hundred thirty-four clinic-referred youth (ages 7 – 14 years, 38% female, 84% white) who met DSM-IV criteria for ODD received one of two psychosocial treatments: Parent Management Training (PMT; Barkley, 1997) or Collaborative and Proactive Solutions (CPS; Greene, 1998). At pre-treatment, one-week follow-up, and six-month follow-up, mothers reported child aggression and conduct problems, clinicians reported global clinical impairment and clinical improvement, and ODD symptom counts were collected from a semi-structured diagnostic interview with mothers. Baseline ODD symptoms were used to test previously supported multi-dimensional models. **Results:** One- and two-factor conceptualizations were supported; however, the two-factor solution was preferred. With this solution, each dimension significantly and similarly improved across our two treatment conditions, PMT and CPS. We had predicted that CPS would result in greater changes on the affective dimension and PMT greater effects on the behavioral dimension. Improvements across affective and behavioral ODD factors also had significant effects across treatment conditions on clinician- and mother-reported clinical outcomes. **Discussion:** Although our study possesses some limitations, to our knowledge this is the first attempt to examine the angry/irritable and argumentative/defiant dimensions of ODD separately in a clinic-referred sample and to examine how changes in these dimensions relate to improvement following two different psychosocial treatments. As noted, no differences between the two treatments were noted for these dimensions, both resulted in significant changes. The differential response of these unique but inter-related dimensions to other treatments, if present, awaits examination of other forms of intervention.

#### **Patterns in the Parent-Child Relationship and Clinical Outcomes in a Randomized Control Trial**

**Jordan Booker, University of Missouri, USA**

**Thomas Ollendick, Virginia Polytechnic Institute and State University, USA**

**Introduction:** Initial comparisons of Parent Management Training and Collaborative and Proactive Solutions for the treatment of children's oppositional defiant disorder (ODD) have shown both treatments to be effective and comparably efficient (e.g., Ollendick et al., 2016). Yet, even with the empirical support behind these and other interventions for ODD (Eyberg, Nelson, & Boggs, 2008), up to 50% of children do not respond to ODD treatments, suggesting there are additional factors at the level of the child or family that may influence treatment outcomes. Previous findings have shown that child (Booker, Ollendick, Dunsmore, & Greene, 2016) and parent (Burke et al., 2002) factors moderate treatment response. The current study aimed to extend these findings by considering family patterns in the parent-child relationship (parenting strategies; mother-child interactions) to determine additional moderating influences on treatment. This study had two major goals: first, to identify distinct parent-child relationship patterns among treatment-seeking families and second, to test the ways patterns may moderate children's post-treatment response.

**Method/Techniques:** A secondary analysis considered the pre- and post-treatment outcomes of 134 children and their parents from a randomized clinical trial for ODD (Ollendick et al., 2016). Mothers and fathers reported on their parenting beliefs at pre-treatment, and children and mothers completed a problem solving task (the Tangram puzzle task) at pre-treatment. Following pre-treatment assessment, families were randomly assigned to one of the two treatment conditions for up to 14, weekly, 75-minute treatment sessions: Parent Management Training (PMT) or Collaborative and Proactive Solutions (CPS). Children were assessed for outcomes of externalizing problems and adaptive skills at pre-treatment, one-week post-treatment, and six-months post-treatment.

**Results/Outcome:** Principal components were formed from the multiple indicators of the parent-child relationship. Four components were supported indicating a) parental warmth; b) parental monitoring; c) family hostility; and d) family permissiveness. These patterns were found to moderate treatment outcomes. Families who entered CPS with marked hostility reported greater adaptive skills for their children relative to hostile families who entered PMT. In contrast, families who entered PMT with marked parental warmth reported higher adaptive skills for children following treatment and continued improvements in reports of adaptive skills over time.

**Discussion:** The clinical implications of broad family patterns upon treatment entry will be highlighted, alongside a focus on how to better anticipate affordances and complications given the broader patterns of warmth and hostility families bring upon entering treatment. These findings may have implications for addressing select family patterns and improving treatment outcomes for certain families.

## **Translating Efficacy Research into a "Real World" Setting: A Randomised Comparison Trial Comparing Collaborative and Proactive Solutions to Parent Management Training for Oppositional Youth**

**Rachael Murrihy, Anna Dedousis-Wallace, Sophia Drysdale, Louise Remond & John McAloon, University of Technology Sydney, Australia**

**Ross Greene & Thomas Ollendick, Virginia Tech, USA**

**Introduction:** The current gold standard of care for children with conduct problems is Parent Management Training (PMT). PMT has been widely practised for 40 years, and has been the single most successful treatment approach for reducing conduct problems (Brestan & Eyberg, 1998). Whilst an impressive body of research has documented the efficacy of PMT (Murrihy, Ollendick & Kidman, 2010), the therapy is not effective for everyone. Between 20-40% of families treated with PMT do not respond to a satisfactory level (Dishion & Patterson, 1992). Thus, the need exists for the study of alternative approaches to the treatment of youth conduct problems. It has been suggested that the effectiveness of PMT may be limited due to its exclusive focus on parenting behaviors, and a lack of focus on child characteristics that contribute to the development of oppositional behaviors (Webster-Stratton & Hammond, 1997). This has led to an increased focus on treatments that address child characteristics, such as Collaborative and Proactive Solutions (CPS; Greene, 2010). In 2016, Ollendick and colleagues published the results of a RCT which compared CPS to PMT, and a waitlist control, in the treatment of 7-14 year olds with oppositional defiant disorder (ODD). Results showed that children, in both CPS and PMT conditions, had significantly fewer oppositional behaviors following treatment. In their conclusion Ollendick et al. suggested that an effectiveness study should follow these positive findings for CPS for the purposes of trialling CPS "in a real world setting". This paper sets out to present the results of an effectiveness trial, conducted in a "real world" community-based setting in Sydney, Australia.

**Method:** This randomized comparison trial has been conducted in an established community clinic. One hundred and twenty-nine families, with youth aged 7-14 years, were randomized to either PMT or CPS conditions. Participants met criteria for ODD as defined in the Diagnostic and Statistical Manual of Mental Disorders (4th ed.). Families received up to 16 one-hour sessions of psychological treatment. They were assessed at pre and post-treatment and at 6 month follow-up. Assessment comprised semi-structured interviews, child and parent report questionnaires and clinician assessment of symptom severity and global improvement.

**Results:** The treatment phase of the trial and assessments have been completed. Results will be presented comparing (a) oppositional behaviors and general functioning at post-treatment and follow-up for youth in the CPS and PMT conditions; and the (b) acceptability and attrition associated with CPS.

**Discussion:** Positive results for the CPS condition in this effectiveness trial would buttress earlier findings from Ollendick et al.'s RCT (2016) and strengthen the evidence for the use of CPS with families of youth, aged 7-14 years, with conduct problems.

**Conclusions:** For families with oppositional youth who do not respond well to PMT or find the treatment to be unacceptable, alternative evidence-based treatments are greatly needed. This paper will add to the current literature by providing data on the effectiveness of an innovative model, Collaborative and Proactive Solutions, for the treatment of families with oppositional youth.

## **Moderators and Mediators of Parent Management Training and Collaborative Proactive Solutions in the treatment of oppositional defiant disorder in youth**

**Anna Dedousis-Wallace, Sophia Drysdale & Rachael Murrihy, University of Technology Sydney, Australia**

**Thomas H. Ollendick, Virginia Polytechnic Institute & State University, USA**

**John McAloon, University of Technology Sydney, Australia**

**Introduction.** Once treatment effectiveness has been established, treatment mediators and moderators become an important focus in identifying potential mechanisms of change and with whom and under what conditions a treatment works. In the treatment of disruptive behaviour disorders in children and adolescents, extensive research has established Parent Management Training (PMT) to be the most effective intervention (e.g., Eyberg, Nelson, & Boggs, 2008; McCart, Priester, Davies, & Azen, 2006; Ollendick et al., 2016). However, PMT does not work satisfactorily for up to 50% of children (Ollendick, Greene, Austin et al., 2016; Murrihy, Kidman & Ollendick, 2010). This has led to the development of alternative treatments such as Collaborative and Proactive Solutions (CPS; Greene, 2010), which has been found to have equivalent results as PMT in the treatment of disruptive behavior disorders. (e.g., Ollendick et al., 2016; Greene, Ablon, & Martin, 2006). Determining why some children and adolescents do not benefit from these evidence based therapies is an important next step - there is limited research addressing treatment mediators and moderators, particularly with regard to CPS as a treatment for disruptive behaviour disorders. Therefore, the goal of the current Randomised Control Trial (RCT) was to address this gap in the literature by examining parent and youth (7-14 years of age) characteristics as potential moderator and mediator variables in the treatment of 119 families of young people presenting with Oppositional Defiant Disorder (ODD).

**Method/techniques.** Participants were assessed for ODD using the Anxiety Disorders Interview Schedule for DSM-IV, child and parent versions (ADIS-C/P; Silverman & Albano, 1996) at pre and post-treatment and 6-month follow-up. Those who criteria for ODD were randomized to CPS or PMT for up to 16 weeks of treatment.

**Results/Outcome.** Mediator examined variables included lagging skills, parenting practices, emotion regulation (parent and child), parental attributions and perceived parental self-efficacy and were measured at 6 time points during the therapy process. Moderator analyses were undertaken looking at the impact of child age, parenting style, emotion regulation (parent and child), perceived parental self-efficacy, parental attributions and maternal depression on treatment outcomes for PMT versus CPS.

**Discussion.** The clinical implications of the mediator and moderators of treatment will be presented, with a focus on how treatment might be personalized to enhance and improve treatment outcomes for children and adolescents with ODD.

## **Uncovering Effective Components of Psychosocial Training Programs for Youth Using a Micro-Trial Approach**

**Convenor: Brechtje de Mooij, University of Amsterdam, the Netherlands**

**Chair: Thomas Ollendick, Virginia Polytechnic Institute and State University, USA**

**Discussant: Ross Greene, Virginia Polytechnic Institute and State University, USA**

### **Meta-Analysis of Components of Behavioral Parent and Teacher Training Interventions for Children with Attention Deficit Hyperactivity Disorder**

**Rianne Hornstra, Rijksuniversiteit Groningen, the Netherlands**

**Annabeth P. Groenman, Pieter J. Hoekstra & Barbara J. van den Hoofdakker, University of Groningen and University Medical Center Groningen, the Netherlands**

**Saskia van der Oord, KU Leuven, Belgium**

**Marjolein Luman & Anouck I. Staff, Vrije Universiteit Amsterdam, the Netherlands**

**Lianne van der Veen-Mulders, University of Groningen and University Medical Center Groningen, the Netherlands**

Behavioral parent and teacher training are effective interventions for children with attention-deficit/hyperactivity disorder (ADHD), especially in reducing behavioral problems. However, it is unknown which behavioral techniques that are being taught to parents and teachers are associated with effectiveness. The objectives of this meta-analysis were to examine which techniques are associated with a decline in ADHD symptoms and behavioral problems. We systematically searched randomized controlled trials that examined the effectiveness of behavioral parent or teacher training for children and adolescents with ADHD below 18 years old. The manuals of the included interventions of eligible trials were scored and sample, intervention and content components were extracted. Content components were subdivided into the following categories; a) shaping knowledge, b) observation and monitoring, c) stimulus control techniques, d) contingency management, e) generalization and maintenance, f) relationship building communication skills. Currently data have been extracted and the first analysis are run. In this presentation we will present which elements are related to effectiveness.

### **Preliminary Results of a Randomized Controlled Microtrial into the Effectiveness of Behavioral Teacher Training Techniques for Childhood Attention Deficit Hyperactivity Disorder**

**Anouck Staff & Marjolein Luman, Vrije Universiteit Amsterdam, the Netherlands**

**Saskia van der Oord, KU Leuven, Belgium**

**Pieter Hoekstra & Barbara van den Hoofdakker, University of Groningen, The Netherlands**

**Jaap Oosterlaan, Vrije Universiteit Amsterdam, the Netherlands**

There is a wealth of evidence showing that behavioral parent- and teacher interventions for children with ADHD effectively reduce behavioral problems of the child and improve teacher/parental skills and confidence. Although there is still room for improvement (es .3). The common elements of these interventions, among others, include behavioral techniques such as changing behavior through stimulus control (e.g., provide structure and clear instructions) and consequent techniques (e.g., complement desired behavior and ignore unwanted behavior). So far, research into uncovering effective elements for ADHD interventions is scarce. However, these type of studies are needed in order to improve the effectiveness of current psychosocial interventions for ADHD. Using a randomized controlled microtrial approach, a short term, individualized behavioral teacher training consisting of stimulus control techniques or consequent techniques was compared to a waitlist control group. Participants were 90 children (6-12 years) with (symptoms of) ADHD without medication attending regular education of whom the teacher was trained. Primary outcome was the daily assessment of the child's problem behaviors. Data have been collected and the first results on the effectiveness of stimulus control and consequent techniques in behavioral teacher training will be presented.

### **Core Components of Cognitive Behavioral Therapy in Preventing Depression in Youth: Does the Type and Sequence of Components Matter?**

**Marieke van den Heuvel, Trimbos Institute and Erasmus University Rotterdam, the Netherlands**

**Denise Boddien, Utrecht University & Radboud University Nijmegen, the Netherlands**

**Filip Smit, Trimbos-institute and Free University Amsterdam, the Netherlands**

**Rutger Engels, Erasmus University Rotterdam, the Netherlands**

Both depressive disorder and subclinical depressive symptoms during adolescence are a major public health concern. Therefore, it is important that depression is detected at an early stage and is treated preventively. Prevention based on the principles of Cognitive Behavioural Therapy (CBT) has proven to be the most effective, however research has mainly focused on the effectiveness of "prevention packages" consisting of multiple CBT-components, rather than on the distinct CBT-components. In this study we evaluate the relative effectiveness of four core components of CBT (cognitive restructuring (CR), behavioural activation (BA), problem solving (PS) and relaxation (RE)). In addition, we examine the relative (cost-)effectiveness of four different sequences of these components: (1) CR – BA – RE – PS, (2) BA – CR – RE – PS, (3) PS – GA – CR – RE and (4) RE – PS – BA – CR. We use a non-blinded multisite cluster randomized prevention microtrial to evaluate the differential effectiveness of different types and sequences of CBT-elements in the prevention of depression among 256 adolescents. We are still collecting post treatment data for the study until July. In this presentation, preliminary findings will be presented.

### **Exposure or Cognitive Restructuring? Training Components Aimed at Decreasing Social Anxiety**

**Brechtje de Mooij, University of Amsterdam, the Netherlands**

**Minne Fekkes, TNO Child Health, the Netherlands**

**Anne Miers, Leiden University, the Netherlands**

**Ron Scholte, Radboud University Nijmegen, the Netherlands**

**Geertjan Overbeek, University of Amsterdam, the Netherlands**

Social anxiety is related to negative child outcomes, such as peer rejection, loneliness, depression and poor school performance (e.g. Biedel, Turner, Morris, 1999). Cognitive behavioral training programs aimed at reducing social anxiety generally implement multiple training components, including relaxation, psychoeducation, social skills, cognitive restructuring and exposure (McLellan, Alfano, Hudson, 2015). However, at this time it is unknown which of these components drive program effects. By understanding the effectiveness of individual



training components, more insight is gained into which components are most potent for elementary school aged children, which in turn makes it possible to tailor child development programs to individual needs. Two key components of social anxiety programs are cognitive restructuring and gradual exposure. Therefore, in the present micro-trial we sought to identify the effectiveness of these individual training components as well as the combination of both components in reducing social anxiety in elementary school aged children. Study participants were 175 students from sixteen Dutch primary schools that scored above their class average on social anxiety as measured using the Social Anxiety Scale for Adolescents (SAS-A; La Graca & Lopez, 1998). Participants were in grades four to six, with a mean age of 10.48 years old (SD = 1.07). Schools were randomized into three groups: exposure exercises only (n = 82), cognitive restructuring exercises only (n = 60) and a combination of both components (n = 33). In all conditions, a certified professional provided a four-session program, each session lasting 60 minutes. Questionnaires were completed on four occasions: five weeks before the start of the training program (screening), the week prior to the start of the training program (pre-test), the week after the program had ended (post-test) and three months after the program had ended (follow-up). Preliminary results from separate repeated-measures ANOVAs for the three conditions showed that children in both the exposure-condition as well as the cognitive restructuring-condition reported significant decreases in anxiety, anxious behavior and avoidance from pretest to posttest. These children also reported increases in self-esteem and positive thoughts from pretest to posttest. We did not find these results for the combination-condition. Regardless of condition, children reported less distress, more approach behavior and higher self-efficacy after the training program. Forthcoming analyses using latent difference score models should corroborate these results. This study provides insight into the relative effectiveness of exposure and cognitive restructuring as individual training components as well as their combined effectiveness in reducing early symptoms of social anxiety. Preliminary results suggest that both exposure and cognitive restructuring are effective in reducing social anxiety in primary school age children and that a combination of components does not outperform either individual component.

### **Parenting and Translational Approaches to Child Conduct Problems: A Focus on Emotion**

**Convenor: David Hawes, University of Sydney, Australia**

**Chair: David Hawes, University of Sydney, Australia**

**Discussant: Mark Dadds, University of Sydney, Australia**

### **Gene and Temperament-Based Moderators of Parenting Interventions for Child Disruptive Behavior: Evidence from a Randomized Trial of the Incredible Years Program**

**Geertjan Overbeek & Joyce Weeland, University of Amsterdam, the Netherlands**

**Rabia Chhangur, Municipal Health Services Amsterdam, the Netherlands**

**Bram Oriobo de Castro & Walter Matthys, Utrecht University, the Netherlands**

**Alithe Van den Akker, University of Amsterdam, the Netherlands**

Parent-child conflict, negative parental discipline, and lack of parental warmth and sensitivity are widely examined as major determinants of children's disruptive behaviors. In doing so, scholars have mostly applied a diathesis-stress perspective, focusing on family stress and negative developmental outcomes. Another viable hypothesis, however, holds that some children based on their genetic or temperament make-up may perhaps be more sensitive for parental upbringing, be it characterized by positive or negative affect (e.g., Belsky & Pluess, 2009). In order to rule out alternative explanations for the existence of a gene or temperament-based susceptibility to parenting (G×E or T×E) and to boost statistical power, an intervention trial formed the backbone of our approach. In this approach, environmental risk is manipulated by an intervention to which children varying on genotype and temperament are randomly assigned. A total of 387 parent-child dyads participated in a randomized trial (pre-test, post-test, and 4-month follow up) of the parent training Incredible Years. Families were screened for inclusion based on a ECBI intensity score > 75th percentile. At each of the assessment points, parents filled out questionnaires about their parenting behavior (PPI) and their child's problem and prosocial behavior (ECBI; SDQ; MESSY). In addition, parent-child interactions were observed and coded using DPICS. Children in our sample were between 4 and 8 years of age at baseline (M age = 6.31, SD = 1.33), mostly born in The Netherlands (97.4%), and about half of them (55.3%) were boys. Participating parents (91% mothers) in our sample were between 23 and 51 years of age (M age = 38.10, SD = 4.84), mostly born in the Netherlands (over 80% across parents), and about half of them were higher educated. We examined allelic variation in all participating children across the 5HTT-LPR, DRD2, DRD4, MAOA, and DAT1 genes, and examined child temperament (i.e., negative emotionality, surgency, effortful control). Latent growth curve and latent change models were estimated in Mplus, specifying an intercept (i.e., baseline level) and slope or change scores over time (i.e., development over time) for children's problem behavior. Results show that children whose parents received the Incredible Years parent training significantly decreased in disruptive behavior, compared with controls. This intervention effect was significantly moderated by child genotype. Specifically, children with a higher score on a polygenetic susceptibility index more strongly decreased in disruptive behavior than children with a lower score on this genetic index. Analyses with regard to temperament, show that temperament did not moderate the Incredible Years intervention effects, but rather that temperament scores on effortful control and negative emotionality were predicted by the intervention—with effortful control increasing and negative emotionality decreasing in children whose parents received the Incredible Years program.

### **What Do We Know About the Children Whose Callous and Unemotional Traits Respond Well to Parenting Intervention?**

**David Hawes, University of Sydney, Australia**

**Therese English & Subodha Wimalaweera, University of New South Wales, Australia**

**Olivia Schollar-Root & Mark Dadds, University of Sydney, Australia**

Among children with conduct problems, high levels of callous and unemotional (CU) traits (e.g., a lack of guilt and empathy) are associated with a particularly severe and chronic trajectory of antisocial behaviour and distinct neurodevelopmental correlates related to the processing of emotional stimuli and reinforcement learning. The effects of intervention on CU traits remain poorly understood, yet clinical research suggests that the CU traits of some children respond well to treatment. Specifically, the same parenting interventions that have been found to have the strongest effects on conduct problem behaviours have also been associated with the strongest effects on the affective features of CU traits, with social-learning based parent training being found to produce change in CU traits in the order of a large effect size when delivered early in development (Hawes, Price & Dadds, 2014). Such findings are consistent with broader evidence that developmental trajectories of CU traits are shaped by neurobiological as well as environmental influences, including parental warmth/sensitivity. Very little, however, is known about the potential for adjunctive or modified components of parent training interventions to further enhance treatment effects on CU

traits in young children, or why the CU traits of some children may be more amenable to such interventions than others. Moreover, an important limitation of research to date has been that clinical trials have generally been conducted with children whose CU traits span a broadly distributed range, meaning that it has been unclear whether treatment outcome findings apply to CU traits that are indeed trait-like (e.g., elevated and temporally stable) prior to intervention. Novel findings will be reported from a study investigating child and family factors associated with therapeutic change in CU traits among young children with clinic-referred conduct problems. Participants were families of ( $n = 40$ ) children aged 3-to-8 years who were screened at multiple assessment points and sampled based on evidence of high and stable patterns of CU traits at baseline. Using data from a randomised controlled trial of two intensive parenting interventions that were found to produce large change in CU traits at the group level (previously reported by Dadds, English, Wimalaweera, Schollar-Root, & Hawes, 2019), participants were classified as responders/nonresponders based on individual-level change in multi-informant measures of CU traits, and compared on a range of child, parent, and family variables. Factors that do and do not appear to characterise children who exhibit treatment-related change in otherwise stable patterns of CU traits will be discussed, along with related implications for models of intervention for this high-risk population.

### **Callous-Unemotional Traits and Parental Mind-Mindedness Among Families of Young Children with Conduct Problems: An Observational Study**

**Carri Fisher, David Hawes & Mark Dadds, University of Sydney, Australia**

Among children and adolescents with disruptive behaviour disorders, those with co-occurring callous and unemotional (CU) traits show a distinct trajectory of antisocial behaviour, characterised by an earlier onset and more chronic, severe, and aggressive behaviour problems. In addition to evidence associating CU traits with biological underpinnings, there is increasing evidence that characteristics of the child's social context, including parenting processes, contribute to the development of these traits. This is consistent with developmental theories of early childhood socialisation, which posit that parental responsiveness helps scaffold emotion understanding and the internalisation of moral and rule-based values, which are known deficits for children with CU traits. Furthermore, the affective quality of the parent-child relationship appears to be a particularly strong predictor of conscience development among children with a fearless/under-aroused temperament, such as that associated with CU traits. One specific form of parental responsiveness that may potentially serve to protect against the emergence of CU traits is that of mind-mindedness. Mind-mindedness refers to a caregiver's capacity to recognize and make attuned comments in response to a child's thoughts and emotions (Meins, 1997). Research on mind-mindedness has emphasised the use of observational methods to index caregivers' representations of their children's mental states in real time, and there is evidence that such indices capture unique aspects of parental attunement beyond those reflected in broader constructs such as warmth/sensitivity. Importantly, this includes evidence from emerging research into CU traits. A longitudinal study by Centifanti et al. (2016) found that reduced parental mind-mindedness in infancy predicted CU traits in middle childhood, whereas early maternal sensitivity did not. The aim of the current study was to examine associations between parent mind-mindedness, antisocial behaviour, and CU traits, in young children (aged 2-8) with clinically-severe conduct problems ( $n = 100$ ) as well as typically developing comparison children ( $n = 30$ ). A key strength of the study was the collection of data from both mothers and fathers, which allowed for the investigation of individual and joint contributions of parental mind-mindedness to child behaviour and CU traits. Maternal and paternal mind-mindedness, in terms of appropriate or non-attuned verbal and nonverbal responses to their child, was coded from 5-minute speech samples and from a family interaction task involving narrative-based play (see Haden et al., 2001; Meins & Fernyhough, 2015). Linear regression was used to test the prediction that mind-mindedness would explain unique variance in child conduct problems over and above other parenting risk factors, and that mind-mindedness would be more strongly associated with conduct problem severity among children with high rather than low levels of CU traits. Findings will be discussed in terms of implications for the role of mind-mindedness in developmental models of conduct problems and psychopathy, and clinical implications for early intervention practices focused on parents.

### **Do Childhood Conduct Problems Disrupt Parental Emotion Socialisation Processes?**

**Jaimie Northam, Charlotte Burman, David Hawes & Mark Dadds, University of Sydney, Australia**

Children with conduct problems (CPs) and high callous-unemotional (CU) traits are known for their severe behavioural profiles, coupled with a lack of empathy and disregard for the feelings of others (Frick & White, 2008). These children have been found to be less responsive to emotional stimuli than others, informing child specific, biologically-based theories for the deficits in emotion processing and responding (e.g. Blair, 2005). However, recent evidence suggests that there is more to this picture. Reduced emotionality in children with high CU traits has been demonstrated to be less stable than previously thought (e.g. Ezpeleta et al., 2017; Pasalich et al., 2014), with some studies showing that emotional deficits can be ameliorated under specific conditions, notably those depicting a character in distress associated with attachment threat (e.g. Dadds et al., 2016). Such findings raise questions about the development of these traits – for example; if children with high CU traits are, in fact, just as emotionally responsive as other children, how can the observed differences in emotion-cued behaviours be explained? If the findings of Dadds et al. (2016) hold true, explanations beyond traditional biologically-based accounts are required. This study asked whether the findings of Dadds et al. (2016) could be explained by how these children understood the emotional content they had viewed, and asked whether childhood CPs (with high and low CU traits) are associated with differences in emotional comprehension and parenting behaviours when discussing emotional content. Participants were 130 children, aged 2 to 8 years old, with varying levels of CPs and CU traits (CP+CU, CP-CU, control sample) and their parents. After watching a highly emotional six-minute excerpt from Disney's 'The Lion King', children were directed to summarise the content to their parents, who were instructed to prompt discussion as desired. Videos were transcribed verbatim and coded for instances of child references to emotion, comprehension of film content and parent emotion-socialization behaviours. This study looks beyond emotional hyporeactivity-based explanations for deficits in emotion-cued behaviours in children with CPs and high CU traits by exploring specific emotion-based parenting behaviours and child deficits in emotional comprehension.

## **Enhancing Effectiveness of Cognitive Behavioral Treatment for Children and Adolescents with Externalizing Behavior Problems: New developments**

**Convenor: Juliette Liber, Utrecht University, the Netherlands**

**Chair: Juliette Liber, Utrecht University, the Netherlands**

**Discussant: Robert Friedberg, Palo Alto University, USA**

### **Using Interactive Virtual Reality to Treat Aggressive Behavior Problems in Children**

**Sophie Alsem, Anouk van Dijk, Esmée Verhulp & Bram Orobio de Castro, Utrecht University, the Netherlands**

The effects of current evidence-based cognitive behavioral treatments (CBT) on children's aggressive behavior problems are modest. The goal of the present research is to test whether CBT effectiveness can be enhanced using interactive virtual reality. CBT is expected to be most effective when children's aggressive cognitions are challenged in emotionally involving social situations—i.e., the types of situations that trigger their aggression in real life. Virtual reality allows for such exposure within a controlled treatment context. In addition, virtual reality has been found to enhance treatment motivation, which may foster intervention adherence as well as effectiveness. This talk presents the design of interactive virtual reality CBT and a study to examine the effectiveness of CBT with virtual reality to treat children's aggressive behavior problems. Further, we will share the first experiences of therapists with our virtual reality treatment. For the study, 200 boys age 8-12 years will be recruited in clinical institutions. These children will be randomized into three groups: individual CBT with virtual reality, individual CBT with roleplays (active control group), and a care-as-usual group (passive control group). This study combines 3-wave assessment (pre-test, post-test and 6-month follow-up) with a more fine-grained weekly assessment in order to capture both group-level differences as well as change within individuals. We expect that boys receiving CBT with virtual reality (versus the two control conditions) will show larger decreases in aggressive cognitions and behavior, as well as larger increases in emotion regulation and treatment motivation. By sharing our experiences and ideas, we hope to inform and inspire researchers and practitioners who are trying to improve treatment outcomes for children with aggressive behavior problems.

### **Internet-Enhanced Cognitive-Behavioral Intervention for Aggressive Children**

**John Lochman, Shannon Jones, Bradley White & Meagan Heilm, University of Alabama, USA**

Despite extensive research on evidence-based interventions programs for conduct problem children, there have been consistent implementation difficulties in engaging many children and parents in time-consuming interventions that last many months. As a result, successful wide-spread dissemination of evidence-based interventions in real-world settings has lagged. This presentation will address this concern by presenting recent efforts to make a traditional evidence-based intervention more efficient and engaging through use of internet components. First, we will describe the results from a feasibility study of an innovative indicated prevention intervention with hybrid face-to-face and web-based components for preadolescent youth (CP-IE), and then will describe a pilot study of an almost exclusively internet version of this intervention (CP-IP). The CP-IE intervention includes a considerably briefer set of face-to-face sessions from the evidence-based Coping Power (CP) program and a carefully integrated internet component with practice and teaching activities and cartoon videos for children and for parents. The Full Coping Power program uses traditional face-to-face group or individual sessions with children and their parents, and has been found to be efficacious in a series of studies (e.g. Lochman, Wells, Qu & Chen, 2013). The Coping Power – Internet Enhanced (CP-IE) program introduces the set of cognitive-behavioral skills in 12 small group sessions for children (instead of 34 sessions in the full CP program) delivered during the school day and 7 group sessions for parents (instead of 16 sessions in the full CP program). In this feasibility CP-IE study, eight elementary schools were randomly assigned to CP-IE or to Untreated Control, and six children at each school were identified each year based on 4th grade teacher ratings of aggressive behavior. Path analyses of teacher-rated disruptive behavior outcomes for 91 fifth grade children, across two annual cohorts, indicated Control children had significantly greater increases in conduct problem behaviors across the 5th grade year than did CP-IE children (Lochman, Boxmeyer, Jones, Qu, Ewoldsen & Nelson, 2017). This much briefer version of Coping Power provided beneficial preventive effects on children's behavior in the school setting similar to the effects of the longer version of Coping Power, and did so in a cost-effective way. The website materials appeared to successfully engage children, and parents' use of the website predicted children's changes in conduct problems across the year. Based on these encouraging findings, we have recently completed a small no-control pilot study of a version of the program that has only minimal initial contact with therapists (Coping Power – Predominantly Internet; CP-IP), and the next part of the presentation will describe the preliminary use of an abbreviated version of CP-IP with six children and their parents. CP-IP includes additional videos illustrating the CP emotion regulation and problem-solving skills. Following one face-to-face session with a therapist to introduce the program and the technology, remaining contact with children and parents was only through separate webpages for children and for parents. Children displayed a 13.8% decrease in reactive aggression and 12% decrease in proactive aggression. Future directions and implications for inte

### **Daily Routines as an Antecedent Intervention for Behavior Problems in Children with Attention Deficit Hyperactivity Disorder: A Randomized Controlled Pilot Study**

**Urdur Njardvik, Arnar Baldvinsson & Anna Vala Hansen, University of Iceland, Iceland**

Daily routines have an important role in teaching children appropriate behaviors (Spagnola & Fiese, 2007) and may serve as setting events for positive behaviors and provide valuable opportunities for antecedent interventions for children with externalizing disorders. Several studies have reported fewer routines and less family organization for children with ADHD and routines have also been linked to oppositional behaviors (Schroeder & Kelley, 2009; Lanza & Drabick, 2011). Sleep problems are also frequently reported in children with ADHD, especially initiating and maintaining sleep (Owens, 2005) and have been linked to poorer academic functioning, attention skills and working memory performance (Sciberras, DePetro, Mensah & Hiscock, 2015). Our previous results show that families of children with ADHD report strong discipline routines while having fewer daily living routines, and that daily living routines are strongly related to behavior problems and sleep problems, especially bedtime resistance. The purpose of this study was to examine the effects of a brief antecedent intervention for behavior problems in children with ADHD, focusing on altering and increasing daily living routines. Potential effects on sleep problems were also assessed. Participants in this pilot study were parents of 21 child aged 6-12 years, all diagnosed with ADHD, combined presentation. Participants were randomly assigned to either treatment group or control group (wait-list condition). The treatment group attended two individual sessions where daily living routines were discussed in relation to behavior problems. Parents answered the Child Routine Questionnaire (CRQ), the Disruptive Behavior Rating Scale (DBRS), the ADHD Rating Scale, and the Children's Sleep Habit Questionnaire (CSHQ) pre and post intervention. Results showed that daily living routines increased significantly for the treatment group and oppositional behavior problems, as measured by the DBRS, were significantly reduced. No changes were seen in the control group. Results

indicate that daily living routines may be worth exploring as an additional treatment component to traditional parent training interventions for children with ADHD. Data on sleep-related problems will also be presented and discussed.

### **A Cognitive Versus Behavioral Approach to Emotion Regulation Training for Externalizing Behavior Problems in Adolescence**

**Lysanne te Brinke, Ankie Menting, Hilde Schuiringa, Maja Deković & Bram Orobio de Castro, Utrecht University, the Netherlands**

Over the past years, knowledge regarding the effectiveness of interventions for externalizing behavior problems in adolescence has increased. However, these interventions are still found to be only moderately effective and treatment responsiveness is variable. Therefore, this study aims to increase intervention effectiveness by examining effective approaches to train a crucial mechanism involved in behavior problems: emotion regulation. Specifically, we aim to disentangle a cognitive and behavioral approach to emotion regulation training. To this end, we designed an experimental emotion regulation training (the Think Cool Act Cool training) consisting of two modules: cognitive training (Think Cool) and behavioral training (Act Cool). The modules are designed based on components of evidence-based treatments for adolescents with externalizing behavior problems, such as Coping Power and Aggression Replacement Training. In the Think Cool module, participants learn cognitive emotion regulation skills (e.g. cognitive distraction, reappraisal), whereas the Act Cool module focuses on behavioral emotion regulation skills (e.g. behavioral distraction, relaxation). In both modules, a three-step model is used: signaling emotions, regulating emotions, and solving problems. In order to examine the effectiveness of the Think Cool Act Cool training, a randomized controlled parallel-group study with two arms is being used. Participants are 95 adolescents between 12 and 16 years old, with elevated levels of externalizing behavior problems, who are randomly assigned to either a intervention or a control condition. Participants in the intervention condition receive both the cognitive and behavioral emotion regulation module, but in different sequences. Primary outcome measures are emotion regulation skills, emotion regulation strategies, and externalizing behavior problems. Questionnaires are completed at pre-test, in-between modules, and post-test. In this talk, the content of the Think Cool Act Cool intervention and first results will be shared.

### **New Developments in Parenting Interventions for Parents of Adolescents**

**Convenor: Alan Ralph, University of Queensland, Australia**

**Chair: Kielstra Carine, Triple P Netherlands, the Netherlands**

**Discussant: Matthew Sanders, University of Queensland, Australia**

### **A Brief Overview of the Teen Triple P – Positive Parenting Program for Parents of Adolescents**

**Ralph Alan, University of Queensland, Australia**

Teen Triple P is an upward extension of the Triple P – Positive Parenting Program developed by Professor Matt Sanders and colleagues at the Parenting and Family Support Centre, University of Queensland, in Brisbane Australia. Together they comprise an evidence-based, multi-level system of prevention and early intervention. The program comprises a system of interventions with a common set of principles that parents are encouraged to adopt: ensuring a safe, engaging environment; creating a positive learning environment; using assertive discipline; having realistic expectations; and, taking care of them self as a parent. They translate into 15 specific strategies known to aid parents in the promotion of healthy adolescent development. The 15 strategies are grouped into 4 categories as follows: Developing Positive Relationships (Spending time with a teenager, Talking to a teenager, Showing affection), increasing Desirable Behaviour (Using descriptive praise, Giving attention, Providing opportunities for engaging activities), Teaching New Skills and Behaviours (Setting a good example, Coaching problem-solving, Using behaviour contracts, Holding a family meeting), and Managing Problem Behaviour (Establishing family rules, Using directed discussion, Making clear calm requests, Backing up requests with logical consequences, Using behaviour contracts, Holding family meetings). These strategies all derive from the extant behavioural and developmental research literature which shows them to be powerful and effective agents of change. The Teen Triple P system is best conceptualised as a pyramid of 5 levels. At its base is a media-based parenting information campaign that is predominantly web-based. It is designed as an engagement tool whereby parents can decide which level of Triple P best suits their needs. Next is Level 2 whereby parents may attend a series of brief seminars that provide an introduction to the strategies exemplified in a variety of key contexts: at home, at school, and out in the wider world. Level 3 provides parents with a 2-4 session brief consultation with a trained Triple P Provider, or participation in a 2-hour Discussion Group of topics of common concern. For parents requiring more intensive support, Level 4 can be accessed either by attendance at an 8-session group program with other parents and a trained facilitator, or with a 10-session individual consultation. There is also a self-directed version plus a new self-guided online version. Level 5 interventions provide parents with additional programs that address anxiety, stress, depression, and parental conflict. The promotion of self-regulation is a central platform which runs through the entire system from trainer to practitioner to parent and finally to the child. A second key element is that of minimal sufficiency. Research over the past 40 years has demonstrated that more is not necessarily better and that providing parents with 'just enough support' is often an efficient and effective approach. The studies that follow all focus on recent adaptations of the Level 4 Group Teen program in the Netherlands, Turkey and with parents of teenagers with a disability.

### **Does Triple P Promote Positive Parenting? A Quasi-Experimental Research on the Outcomes of Teen Triple P Program in the Netherlands**

**Steketee Majone, Erasmus University of Rotterdam, the Netherlands**

**Harrie Jonkman, Verwey-Jonker Institute, the Netherlands**

**Pauline Naber, Hoge School In Holland, the Netherlands**

**Marjolijn Distelbrink, Verwey-Jonker Institute, the Netherlands**

**Willemijn Roorda, Hoge School In Holland, the Netherlands**

Triple P is a preventative, positive parenting program used in the youth and health care professional practice of most Dutch municipalities to support parents in the upbringing of their children, in particular for spotting and addressing developmental problems. This, originally Australian, intervention is theoretically well-founded and, according to international and partly Dutch research, effective for parents with children up to the age of twelve. It shows positive effects on parenting skills and on the reduction of parents' child rearing stress and childhood behavioral and emotional problems. This study examined the effectiveness of the Teen Triple P Positive Parenting Program, a parenting program specifically designed for parents of young adolescents. With the use of propensity score matching, 103 parents who participated in the Teen Triple P Program were compared in a quasi-experimental study with 397 parents in a control group. Compared to the control group, parents who received Teen Triple P reported a significant improvement of their parental practice; they are more involved with

their child, more responsive to the needs of the young adolescent, and they report fewer parent-child conflicts. Some differences in behavioral problems among the adolescents, as reported by their parents as well as parental stress could be found among the experimental group. These findings remained the same at the three-to-five-months follow-up.

### **Enhancing the Effects of Treatment for Teen Depression: Triple P for Parents of Depressed Teenagers**

**Kielstra van der Schalk Carine, Families Foundation, the Netherlands**

Twenty-five percent of teens in the Netherlands have experienced episodes of depression before their 18th birthday. Several studies have demonstrated that lack of warmth and excessive criticism and aggression from parents predicts depression in teens. In the Netherlands a study showed that 30% of depressed teens state that they experience parental emotional maltreatment (excessive criticism) and neglect. It's therefore very important that this group receives support that involves the parents, in order to enhance the relationship between the parents and the teens and to ensure that parents can support a depressed teen. Furthermore, having a depressed teenager is very challenging for parents. Depressed children have the tendency to withdraw and/or react with irritation which often leads to frustration and hostility from parents, enhancing the vicious circle of criticism, lack of warmth and depression. At the same time, during the teenage years, parents and children try to find a new balance between autonomy and independence. For depressed teenagers this transition phase to independence is even more complex and it can be hard for parents to support their children in the right way. Group Teen Triple P was delivered to 3 groups of Dutch parents of severely depressed teenagers that were being treated for depression. Group Teen Triple P is an 8 week parenting group for parents of teenagers with emotional and/or behavioural problems, consisting of 5 group sessions and 3 telephone consultations. In this trial we delivered Group Teen Triple P with flexibility, staying within the limits of delivery fidelity. In this presentation we will focus on the content of this tailored program, on the changes it made to the lives of these parents, the teenagers and the family. The clinical significance of this group and the essential elements for change will be presented. The effects of the intervention have been evaluated quantitatively and qualitatively and these data will be shared during this presentation. After this presentation you will have an understanding of ways Group Teen Triple P can be delivered efficiently and effectively to change the lives of families of depressed teenagers.

### **The Efficacy and Acceptability of the Teen Triple P - Positive Parenting Program with Turkish Parents**

**Burcu Arkan, Uludag University, Turkey**

**Taner Guvenir, Dokuz Eylul University, Turkey**

**Alan Ralph & Jamin Day, University of Queensland, Australia**

**Aim:** To evaluate the effectiveness of Group Teen Triple P with parents who have behaviourally disturbed adolescents

**Methods:** The research was conducted in an experimental (randomised controlled) manner. The sample was 76 parents who were grouped as 38 cases and 38 controls with a block randomisation method. Data were collected using the Family Background Questionnaire, General Health Questionnaire (GHQ-12), Strengths and Difficulties Questionnaire (SDQ), Conflict Behavior Questionnaire (CBQ) and Parent Satisfaction Questionnaire. Group Teen Triple P Programme was implemented with the case group for 8 weeks. Data were collected immediately after the programme and again after 3 months. Data were evaluated using variance analysis, t- test and chi-square test.

**Results:** It was found that participation in Group Teen Triple P resulted in the improvement of parental mental health, decreased problematic behaviour of the adolescents and fewer problems between adolescents and their parents.

### **The Effectiveness of an Adaptation of Teen Triple P for Parents of Teenagers with Developmental Disabilities**

**Alan Ralph, Tahlia Gash & Kate Sofronoff, University of Queensland, Australia**

Associate Professor Kate Sofronoff and her Doctoral student Tahlia Gash from The University of Queensland have conducted a clinically registered controlled trial exploring the effectiveness of a new parenting program, Building Bridges Triple P for parents of teens with developmental disabilities (DD). Building Bridges aims to promote parenting skills and confidence, while reducing reported adolescent behavioural and emotional problems. In doing this, it is hypothesised that family relationships and parental mental wellbeing will also improve. Building Bridges Triple P (BBTP) draws on the key principles of Stepping Stones Triple P (SSTP) and Teen Triple P (TTP). SSTP is designed to assist caregivers in parenting a child with a disability, while TTP is a parenting program for caregivers of teenagers. SSTP has been shown to reduce child behaviour problems, influence adjustments in parenting style, increase parental satisfaction and efficacy, and improve parental relationship outcomes for parents of children with developmental disabilities (Tellegen & Sanders, 2013; Whittingham, Sofronoff, Sheffield & Sanders, 2009; Roux, Sofronoff, & Sanders, 2013). Furthermore, TTP has been associated with significant reductions in well-established parenting risk factors such as conflict with their teenager, and on measures of over-reactivity, laxness, and disagreements with their partner over parenting issues (Ralph & Sanders, 2003). While research does support the efficacy of Triple P parenting programs for typically developing teens and children with disabilities, as it stands, there is an absence of parenting-based intervention programs tailored to adolescents with a DD. This is concerning given the increased vulnerability of adolescents with a DD and their families to a range of factors including behavioural problems, teen mental illness, parental psychological distress and child relinquishment. As such, it is clear that this high risk population requires unique support which as it stands, is not readily available to them. It is therefore anticipated that this novel family intervention has the potential to make a positive and enduring difference to the lives of many parents and teens. Fifty families with a child aged between 11 and 18 participated in the controlled trial. Thirty two families were in the intervention group and 18 families were in the waitlist control group. The mixed disability sample for this trial was recruited primarily through schools with a large proportion of the adolescents diagnosed as lower functioning. The 8 week group-based program included 5 face-to-face 2 hour long sessions and three brief phone sessions, all facilitated by the Tahlia Gash, the lead researcher and a provisionally registered psychologist. The study explored the within group differences for both groups at pre and post-intervention and 2 month follow-up (intervention group only), as well as between group differences. Primary outcome variables included parenting style and confidence and teen behavioural and emotional outcomes. Secondary outcomes variables included parental relationship outcomes, psychological adjustment, and program satisfaction. The trial is currently in the final stages of data collection and analysis and as such the outcomes from the trial will be presented here.

## **Tackling Adolescent Depression: Basic Bio-Psycho-Social Mechanisms and Novel Interventions**

**Convenor: Stella Chan, University of Edinburgh, United Kingdom**

**Chair: Stella Chan, University of Edinburgh, United Kingdom**

### **In Search of Vulnerability Mechanisms for Adolescent Depression**

**Stella Chan, Elaine Gray, Heather Whalley & Toni Clarke, University of Edinburgh, United Kingdom**

**Background:** Depression is a highly prevalent and highly recurrent mental illness, with earlier onset being predictive of episode duration and severity. Previous research has identified neuroticism and cognitive biases to be salient markers of depression in adults. This study specifically examined the role of these markers in predicting symptoms in adolescents, alongside other novel factors including stress coping strategies, sleep quality, lifestyle, cortisol responses, and DNA methylation.

**Aim:** The aim is to identify markers for adolescent depression in order to be able to predict mood over time; this would lead to being able to identify those at risk to ensure they receive early intervention.

**Methods:** A total of 100 adolescents have been recruited so far; the age range was 12 to 17 years old which are the ages prior to and around the typical onset age of adolescent depression. Participants completed three mood questionnaires measuring depression, anxiety, and wellbeing, provided a hair sample (for cortisol analysis) and a saliva sample (for DNA methylation analysis), wore an actiwatch for a weeknight (to measure sleep quality), and completed 15 questionnaires online examining lifestyle, cognitive biases, stress coping strategies, amongst others. Participants will be asked to complete the depression, anxiety, and mental wellbeing questionnaires twice more in the following two years. Consent for NHS data linkage was sought to examine the predictivity of these measures over the longer term.

**Results:** Data analyses are currently underway as participant recruitment is still ongoing. It is hypothesised that the predictors of depression identified in previous research (such as neuroticism and cognitive biases) will be found to be predictors here, as well as other factors emerging as significant predictors. It is further hypothesised that age will play a significant role, with older participants (15 to 17 year-olds) showing more symptomatic behaviour of mood problems than younger participants (12 to 14 year-olds). Regarding the DNA methylation analysis, it is hypothesised that individuals with mood problems will show accelerated epigenetic ageing. Preliminary results will be presented at the conference.

**Conclusion:** This work will help identify the most suitable measures for predicting depression in adolescents in order to develop an objective screening tool to assess long-term risk and resilience.

### **Consequence or Risk Factor? The Role of Interpretation Biases in Youth Depression**

**Anca Sfärlea, Christina Buhl, Johanna Löchner, Jakob Neumüller & Laura Thomsen, Ludwig Maximilian University of Munich, Germany**

**Elske Salemink, University of Amsterdam and Utrecht University, the Netherlands**

**Gerd Schulte-Körne & Belinda Platt, Ludwig Maximilian University of Munich, Germany**

Cognitive biases for negative information have been found to characterise adults with depression and to play a role in the development and maintenance of the disorder. However, less is known about the role of cognitive biases in youth depression. We investigated if i) interpretation biases characterise children and adolescents with depression and ii) to what extent these biases are correlates/consequences of depression or risk factors that can already be found in high risk groups before disorder onset. Interpretation biases were assessed in three groups of 9-14 year old children and adolescents: children and adolescents with a diagnosis of major depression ( $n = 32$ ) as well as children and adolescents with a high (children of depressed parents;  $n = 48$ ) or low risk for depression ( $n = 42$ ). We found depressed children and adolescents to exhibit more negative interpretation biases than both high-risk and low-risk groups. The high-risk group, in turn, showed more negative interpretation biases than the low-risk group. The results indicate that negative interpretation biases are to some extent already present in high-risk populations before disorder onset but are strongly amplified by current depressive symptomatology. To further examine if interpretation biases are not only present in children and adolescents at high risk for depression but are indeed a risk factor for the development of a depressive disorder, we follow up high- and low-risk youth to assess if interpretation biases prospectively predict depression onset after 30 months. Preliminary results of this follow-up study will also be presented.

### **Differences in Cognitive Deficits in Anxious and Depressed Adolescents**

**Jeni Fisk, Faith Orchard, Judi Ellis & Shirley Reynolds, University of Reading, United Kingdom**

Cognitive problems are a common and disabling symptom of depression in adolescents (Orchard, Pass, Marshall & Reynolds, 2017). It is widely accepted that problems with autobiographical memory may increase the risk of and maintain depression. The CaR-FA-X model (Williams et al, 2007) has been developed to explain why individuals with depression have difficulty retrieving specific details of their past. We tested the model in 3 groups of young people matched for IQ: 30 with a primary diagnosis of depression, 22 had a primary diagnosis of an anxiety disorder (but not depression) and 29 non-clinical controls. We assessed autobiographical memory and each component of the CaR-FA-X model; rumination, functional avoidance and executive functioning. As hypothesised depressed young people had impaired autobiographical memory in that the depressed group retrieved fewer specific memories. There were no group differences in functional avoidance or verbal fluency. Anxious and depressed participants had impaired inhibition and rumination. However, only the depressed young people had significant impairment in working memory. This suggests that working memory problems may drive the deficit in autobiographical memory. The causal mechanisms are not yet clear but this provides one possible target for interventions aimed to prevent and treat depression. In addition, working memory deficits impact negatively on multiple academic and life tasks and should be considered in school and therapy environments.

### **My Memory Forest: Increasing the Specificity of Future Images and Past Memories Using Storybook Narratives and Character Illustrations**

**Victoria Pile, Ali Winstanley, Eleanor Bennett, Abigail Oliver & Jennifer Y. F. Lau, King's College London, United Kingdom**

**Background:** Maladaptive cognitive styles confer vulnerability for emotional disorders and may develop in childhood. Imagery interventions could target problematic cognitive styles, such as overgeneral memory and avoidance of negative memories, and are indicated for use in children. Here we discuss three stages in the development of a novel intervention for children. First the co-design of the intervention with children, parents and teachers. Second, a case series to provide a preliminary assessment of the acceptability of the intervention. Third, a feasibility randomised controlled trial (RCT) to further evaluate viability and the clinical potential of the intervention against a matched control intervention. **Methods:** The co-design consisted of two focus groups ( $n=30$ ) and consultation with teachers and parents. For both the

case series (n=12) and feasibility RCT (n=56), children and their parents completed a parent-led intervention, with assessments pre and post-intervention. Parents reported on acceptability and engagement in the intervention as well as internalising and externalising symptoms. Self-report questionnaires measured anxiety and depression as well as imagery vividness. In the feasibility RCT, participants were allocated either to the intervention or a matched control intervention. Results: The focus groups and consultation informed the development of the intervention. Acceptability and intervention engagement was good and no harm was reported by parents or participants. The case series indicated decreases in self-reported anxiety and depression but little change in parent-reported symptoms, following intervention. There was no change in how vividly participants imagined positive past events but a decrease in vividness of past negative events. Results from the feasibility RCT will also be discussed. Conclusions: The findings indicate that the intervention is acceptable to participants and may reduce anxiety and depression. Further assessment is necessary to further evaluate it against an appropriate control group.

### **Does Working Memory Updating Training Reduce Repetitive Negative Thought?**

**Henrietta Roberts, Anna Adlam & Mohammad Mostazir, University of Exeter, United Kingdom**

Repetitive negative thinking (RNT, worry and rumination) is a proximal risk factor implicated in depressive onset, maintenance and relapse. Adolescence may be a key developmental window to target RNT and prevent the emergence of depression. Impairments updating the contents of working memory are hypothesised to causally contribute to RNT, and some theorists have suggested these difficulties may be specific to the manipulation of negative information. Computerised cognitive control training to improve working memory updating may thus help reduce RNT and prevent depression. The present study compared adaptive working memory updating training using neutral vs negative stimuli to a non-adaptive control task in a sample of 124 healthy young people. Participants were randomised to 20 sessions of (i) working memory updating training using neutral stimuli (ii) working memory updating training using negative stimuli or (iii) non-adaptive working memory updating training. Worry, rumination, working memory capacity, and working memory updating were assessed before and after the intervention.

### **Recent Developments and Future Pathways in the Treatment of Specific Phobia in Children**

**Convenor: Rachel de Jong, University of Groningen, the Netherlands**

**Chair: Rachel de Jong, University of Groningen, the Netherlands**

**Discussant: Lars-Göran Öst, Stockholm University, Sweden**

### **Recent Advances and Findings in Bibliotherapy for Nighttime Fears/ Phobias in Young Children**

**Thomas Ollendick, Virginia Polytechnic Institute and State University, USA**

**Background:** Nighttime fears are a normal part of child development. However, when they are frequent and intense and evolve into a specific phobia, they may harm not only the child's quality of sleep and daytime behavior but also cause a major disruption in the family. Here, we aimed to evaluate the efficacy of brief CBT-based bibliotherapy for nighttime fears/phobias in young children.

**Methods:** Two studies are presented. In the first multiple baseline design study, nine (9) children between 5 and 7 years of age with a specific phobia and living in the United States were randomized to one of three baseline conditions (1, 2, or 3 weeks). Treatment consisted of the family coming into the clinic for an hour-long session to receive the reading material ("Uncle Lightfoot: Flip that Switch," Coffman, 2012). Subsequently they were asked to read the book and implement the CBT procedures over a 4-week period. In the second RCT, 68 children between 4 and 6 years of age and their caregivers from Brazil participated. These children exhibited excessive nighttime fear behaviors. Participants were randomly assigned to the intervention and control groups. The intervention consisted of a single one-hour session in which parents were instructed to read the book over a 4-week period ("Sleeping with Rafi," Rafihi-Ferreira, Silveira, & Ollendick, 2016).

Throughout, children were encouraged to complete a series of pre-sleep routines and to face their fears of sleeping alone. The control group simply came in for assessments at pre-treatment, post-treatment and follow-up three months later. The following instruments were used: The Fear Survey Schedule for Infants-Preschoolers, Sleep Habits Inventory for Preschool Children, Child Behavior Checklist and Preschool Anxiety Scale. The nighttime fears, sleep, anxiety and other behaviors were analyzed with a mixed ANOVA (group by time).

**Results:** In the multiple baseline design, 8 of the 9 children demonstrated clinically significant changes in anxiety severity. Decreases in separation anxiety and increases in number of nights slept in own bed also increased. Results for the RCT study demonstrated improvements across time for the treatment group, but not the control group, on all study variables (sleep habits, sleep problems, anxiety, fears, internalizing and externalizing behavior problems). Gains at post-treatment were maintained at the three month follow-up.

**Conclusion:** This study provides initial support for use of CBT-based bibliotherapy in the treatment of nighttime fears/phobias. Such a treatment might also be used to supplement standard CBT approaches in routine clinical practice.

### **Optimizing Exposure in the Treatment of Specific Phobia in Children: Facing Fears In-Session or Out-Session?**

**Rachel de Jong & Miriam J.J. Lommen, University of Groningen, the Netherlands**

**Rowella C.W.M. Kuijpers, Radboud University Nijmegen, the Netherlands**

**Wiljo J.P.J. van Hout, University of Groningen, the Netherlands**

**Lisanne Stone, Karakter Child and Adolescent Psychiatry, the Netherlands**

**Peter J. de Jong & Maaike H. Nauta, University of Groningen, the Netherlands**

Despite the empirical evidence of its efficacy, a gap between theory and practice remains, with exposure-based interventions being underused in clinical practice. For example, a Dutch survey of 490 psychologists found that exposure was mostly practiced outside the formal therapy sessions as homework assignment (Sars & van Minnen, 2015). Although homework is important, since children need to exercise their skills in daily situations outside therapy for optimal generalization of what is learned inside therapy (De Jong, Lommen, de Jong & Nauta, 2018), it is questionable whether exposure is effective when it is limited to homework assignments. Especially since avoidance of the anxious object or situation is part of their problem, it might be hard for children to do these assignments independently (e.g., without the help of a therapist or their parents). 60 children with the animal/situational subtype of specific phobia (aged 8-12) were randomized to one of the following three-sessions treatments, namely therapist-guided exposure or self-guided exposure with or without the use of parents as co-therapists. Before and after treatment, specific phobia severity, approach/avoidance behavior and different subjective ratings of anxiety were measured (including feelings of fear and tension, fearful beliefs and approach/avoidance behavior). Preliminary results will be reported and discussed.

## **The Role of Cognitive Biases in Childhood Specific Phobias and Future Directions for Improving Treatment**

**Jeanine Baartmans & Anke Klein, University of Amsterdam, the Netherlands**

**Mike Rinck, Radboud University, the Netherlands**

**Silvia Schneider, Ruhr University Bochum, Germany**

**Susan Bögels, University of Amsterdam, the Netherlands**

**Ron Rapee, Macquarie University, Australia**

**Thomas Ollendick, Virginia Tech, USA**

With estimated prevalence greater than 10%, specific phobia is the most common and also one of the earliest onset mental disorders in children. Early recognition and intervention is thus important, but unfortunately, few children with phobias receive adequate treatment. Furthermore, there is limited research on underlying active ingredients of anxiety that can help improve treatment, and the few existing studies examined these factors in relative isolation. An early intervention treatment approach that seems very promising is the exposure-based One-Session Treatment (OST). While OST has found to be a low-cost yet highly effective exposure-based intervention, relapse rates are relatively high. Digital health innovations are particularly useful in supporting the newly learned skills during OST. The current presentation therefore focuses on 1) underlying mechanisms, and on 2) an individualized app to facilitate the transition of the skills newly acquired in the OST program.

The current presentation discusses two studies that examine underlying mechanisms related to specific phobias in children. In the first study, 81 children with varying levels of spider fear completed the Spider Anxiety and Disgust Screening for Children (SADS-C) and performed two Emotional Stroop tasks, a Free Recall task, an interpretation task including size and distance indication, an Affective Priming Task, and a Behavioral Assessment Test (BAT). We found an attention bias, interpretation bias, and fear-related associations, but no evidence for a memory bias. The biases showed little overlap. Attention bias, interpretation bias, and fear-related associations predicted unique variance in avoidance of spiders. In the second study, 169 children varying in their level of spider fear completed the SADS-C and performed a BAT. They also performed the Ambiguous Scenarios Task twice (AST; once with and once without priming) and a size and distance estimation task as an indication of interpretation bias. Both the AST with and without priming, and the size-estimation correlated significantly with spider fear. Priming did not increase the relation between interpretation bias and spider fear. Furthermore, the AST with priming, and the size-estimation predicted unique variance in avoidance behaviour of spiders, over and above the variance explained by self-reported state anxiety and spider fear. This unique insight can be used to further conceptualize theoretical models of childhood anxiety and to improve treatment.

Additionally, the current presentation focuses on a new study that we are currently preparing. This study employs a multicenter pragmatic randomized controlled trial with 2 active treatments, and a 4-week waiting baseline control period. In total, 168 children will be included who have a specific phobia between the ages of 6 and 13 years. The two active treatments will either be 1) a combination of OST supported by an app that helps children to complete exposure exercises for 4 weeks following OST, or 2) face-to-face OST only. The interactive app will be therapist-supported, personalized to, for example, age, gender, subtype of fear of the child and contain movie fragments of the child's own OST session. Additionally, the study includes physiological, cognitive and behavioral measures to be able to study the underlying mechanisms of OST.

## **Never Work with Animals AND Children! A Virtual Reality One-Session Treatment for Specific Phobia of Dogs Among Children**

**Lara Farrell, Taka Miyamoto, Caroline Donovan, Allison Waters, Kirra Krish, Griffith University, Australia**

**Thomas Ollendick, Virginia Polytechnic University, USA**

Specific Phobia (SP) typically onsets in childhood and frequently predicts other serious mental health disorders later in life. Thus, treatment of SP in childhood is vital to improving functioning for children and their families, and preventing the development of adult mental health disorders. Exposure-based cognitive-behavioural therapy in the format of a one-session treatment (OST) is a well-established treatment for children and youth. However, there are a number of notable barriers to accessing evidence-based exposure treatments in community settings, including therapist confidence and competence in delivering exposure therapy, personal discomfort for the therapists in conducting exposures, and managing the practicalities of multiple stimuli within a single session to deliver in-vivo exposure therapy. Thus, this study aimed to examine a novel mode of exposure treatment using virtual reality (VR) OST for children with a SP of dogs (aged 8 – 12 years). Using a non-concurrent, multiple-baseline, single case series (n=8), it was hypothesised that specific phobia severity would remain stable during a baseline period and then significantly decline following the VR OST. Participants were 8 children (M age = 10.32 years, SD = 2.43) who were randomised to either a three, four or five week baseline monitoring phase, and whom received a VR OST, with weekly follow up assessments for three weeks, followed by a one-month follow up assessment (study end-point). Results demonstrated that prior to treatment, phobia symptoms remained relatively stable during the baselines. At post-treatment, phobia severity, fear ratings, and behavioural approach significantly improved. Outcomes on response and remission rates, reliable change index and the robust improvement rate difference (RIRD) will be presented, along with treatment satisfaction and adherence with homework. This preliminary study provides promising support for the effectiveness of VR OST, and may serve to inform further research aimed at enhancing exposure outcomes.

## **Developments in Cognitive Behavioral Therapy for Children and Adolescents – Examining Effects of Contextual and Structural Characteristics**

**Convenor: Bente Storm Mowatt Haugland, University of Bergen, Norway**

**Chair: Krister Fjermestad, University of Oslo, Norway**

**Discussant: Krister Fjermestad, University of Oslo, Norway**

## **Effectiveness of Cognitive Behavioral Therapy in Treating Youth Anxiety: A Meta-Regression Analysis of Treatment Components, Modalities and Mode of Delivery**

**Maaïke Nauta & Laura Steenhuis, University of Groningen, the Netherlands**

**Denise Bodden, University of Utrecht, the Netherlands**

Even though we know that CBT is effective as a treatment package in treating anxiety disorders in children and young people, little is known about which (combination of) components of CBT contribute to its effectiveness. This study explores whether contextual and structural characteristics of CBT treatment packages and CBT components (as derived by a taxonomy of CBT protocols) were associated with CBT



outcome in child anxiety. We performed a systematic search in the relevant databases, and 62 articles of randomized controlled trials RCTs were selected by two independent reviewers. RCTs comparing CBT as indicated prevention or treatment, to an inactive intervention (e.g. waitlist, no treatment, monitoring) for (sub)clinical symptoms of anxiety in youth, were included. Data extraction was carried out by two independent researchers. The quality of studies was assessed using the 'Clinical Trials Assessment Measure for Psychological Treatments' (CTAM) scale. Cohen's d was calculated as a measure of effect size for both self- and parent-reported anxiety levels. Treatment outcome was then related to potential main and interacting effects of the structural and contextual factors as well as the CBT components, using meta-regression and the novel meta-'classification and regression trees' (meta-CART). Results will show if any of the components, contextual factors, or structural factors, or their combination, were associated with changes in child and parent reported child anxiety symptomatology.

### **Effectiveness of Brief and Standard School-Based Cognitive Behavioral Interventions for Adolescents with Anxiety**

**Bente Storm Mowatt Haugland & Gro Janne Wergeland, University of Bergen, Norway**

**Valborg Baste, Regional Centre for Child and Youth Mental Health and Child Welfare, Norwegian Research Center, Norway**

**Background:** Anxiety disorders are common among adolescents, often causing impairment and problems in the life of young people. Cognitive behavioral therapy (CBT) has proven to be effective in treatment and prevention of anxiety disorders. However, the majority of youths with anxiety problems do not receive help, due to considerable barriers facing young people in need of mental-health services. Low-threshold interventions, delivered in schools, may make interventions more accessible to adolescents. Brief interventions may be easier to implement in a school setting than programs of longer duration requiring more time and resources. Whereas brief-CBT has been studied in clinical settings, the effect of brief- compared to standard-CBT has not previously been evaluated in school-based interventions.

**Method:** A randomized controlled trial (RCT) was conducted, comprising 18 junior high schools in Norway. Participants (N= 313, M age = 14 years, range 12-16 years, 84% girls) were randomized to groups of 5 to 8 adolescents receiving either brief- CBT (a 5-session group program; VAAG, n=91), standard length CBT (a 10-session group program; COOL KIDS, school version, n= 118), or delayed access wait-list control group (WCL, n=104). School health nurses recruited youth (scoring above a defined cut-off on anxiety symptoms and impairment from anxiety). Primary outcomes were assessed pre- and post-intervention and at 1-year follow-up, and included youth and parent rated youth anxiety symptoms (Spence Children's Anxiety Scale, SCAS), and functional impairment (Children's Anxiety Life Interference Scale, CALIS). Secondary outcomes were self-reported and parent-reported youth depressive symptoms (SMFQ) and clinical ratings of impression of severity of anxiety (CGI-S). The effect of school-based CBT was evaluated (comprising both the brief and the standard program) compared to WCL. Thereafter analyses were conducted to test whether brief-CBT was non-inferior to standard length CBT intervention.

**Results:** Significant reductions in anxiety, impairment and depressive symptoms was found for the school-based interventions (comprising both the brief and the standard program) compared to WL ( $p < 0.02$ ). Between-group effect sizes ranged from small to large ( $d = .16 - 1.00$ ), depending on time (post-intervention or 1-year follow-up) length of program (brief- or standard-CBT), informant (adolescent, parent, group-leader) and measure (anxiety, impairment or depressive symptoms). Brief-CBT was not found to be non-inferior to standard-CBT.

Furthermore, outcomes from brief- and standard-CBT were sustained at 1-year follow-up.

**Conclusion:** Low-threshold, school-based group CBT-interventions for adolescents with anxiety symptoms is effective compared to waitlist. The intensity of the intervention influence the effectiveness. Although both brief- and standard-CBT demonstrate efficacy, brief-CBT is not non-inferior to standard length CBT. Given training and supervision, acceptable effect of CBT-interventions is achieved, when delivered by health personnel with limited prior CBT-training. By implementing school-based interventions for anxious youth, we may reach adolescents who struggle with anxiety at an earlier phase in their life. Trial Registration: ClinicalTrials.gov Identifier NCT02279251.

### **Predictors of Treatment Outcome of Brief and Standard School-Based Cognitive Behavioral Interventions for Youth Anxiety**

**Gro Janne Wergeland & Bente Storm Mowatt Haugland, University of Bergen, Norway**

**Åshild Tellefsen Haaland, Clinic of Mental Health, Sorlandet Hospital HF, Norway**

The present study examined predictors of treatment outcome among 302 youth (aged 12–16 years), participating in one of two school-based targeted cognitive behavioral therapy (CBT) interventions for anxiety. The interventions were either a brief (5-session) or a standard duration (10-session) program. The brief program (Vaag) comprised 5.5 hours of face to face contact between the adolescents and group leaders (primarily school health personnel), whereas the standard program (Cool Kids) comprised 15 hours of contact. Potential predictors of effect for the interventions included baseline demographic-, youth-, and parent factors. Outcomes were self-reported and parent-reported youth anxiety and impairment from anxiety, at post-treatment and at 1-year follow-up. The most consistent findings across outcome measures were that higher youth-rated anxiety symptoms, perceived parent support and lower parent reported treatment credibility predicted poorer outcome at post-treatment both for the brief- and the standard program. Higher youth- and parent-rated anxiety symptoms and higher impairment from anxiety predicted poorer outcomes at 1-year follow-up. In youth with higher levels of parent reported anxiety symptoms at baseline, and in youth who perceived their parent's as supportive, there was a greater reduction of anxiety symptom levels after the standard duration program compared to brief-CBT. The results suggest that anxious youth with more severe anxiety, and youth who perceive their parent's behavior as supportive may benefit more from an intervention of standard duration compared to brief-CBT. Implications of the present findings will be discussed.

### **Improving the Transition to School by Treating Preschool Sleep Problems: Preliminary Findings**

**Caroline Donovan, Griffith University, Australia**

**Lisa Meltzer, National Jewish Health, USA**

**Lara Farrell, Allison Waters, Michael Gradisar & Amy Shiels, Griffith University, Australia**

**Background:** Sleep problems in the preschool years represent a transdiagnostic risk factor for numerous child mental health problems and academic problems, in the short- and long-term. The transition to primary school is one of the first developmental challenges that children face, and poor primary school transition itself is a risk factor for the development of child mental health and academic problems. Given that sleep problems are modifiable, it follows that successful treatment BEFORE children begin primary school will reduce child sleep and mental health problems, improve the transition to primary school, and enhance academic outcomes. **Method:** The trial is ongoing over three years, and the design involves a multi-site, single-blind, randomised controlled trial (RCT) whereby parents of pre-schoolers are randomly assigned to either the behavioural program (BSP) or the care-as-usual (CAU) condition. To date, assessments have been conducted with 60 parents at two time points: pre-treatment and post-treatment. Assessments at the end of Term 1 of the first year of formal schooling will have been conducted by the time of presentation. **Results:** Results are pending. However, preliminary analyses from pre- to post-treatment suggest improvements in child sleep problems.

## **Searching for the HERO in Youth: Does Psychological Capital (PsyCap) Predict Mental Health Symptoms and Subjective Well-Being in Australian School-Aged Children and Adolescents?**

**Lara Farrell, Jules Finch & Allison Waters, Griffith University, Australia**

The prevalence of childhood mental health disorders is of global concern. Schools provide a unique platform for identification and intervention of mental health issues in young people. Developed in the field of positive organisational behaviour, Psychological Capital (PsyCap) comprises a suite of four capabilities: hope, efficacy, resilience and optimism; which is commonly ascribed the acronym HERO (Luthans, Luthans, & Jensen, 2012). PsyCap has demonstrated strong empirical associations with decreased psychopathology and increased well-being among adults in workplace settings. Emerging studies among school students have also shown preliminary, positive associations between PsyCap and student well-being and academic outcomes. Whilst promising, there are only a few studies to date which have been conducted with students and largely these studies are limited by methodological measurement issues. This study represents the first to examine PsyCap and associations with mental health symptoms and subjective well-being in Australian school-aged children. Combining hope, efficacy, resilience and optimism, this study aimed to cross-sectionally test the predictive utility of PsyCap on student subjective well-being (i.e., flourishing), and mental health outcomes (i.e., subjective anxiety and depression). It was hypothesised that each HERO capability would be significantly and positively associated with each other, and moreover, that each capability would uniquely and independently predict both reduced mental health symptoms, as well as increased student subjective flourishing. Furthermore, it was expected that the overall model (PsyCap) would be significant. The sample comprised 456 children and adolescents aged 9 to 14 years (Mage = 11.54, SD = 1.20; 47% were female) from across Grades 4 to 7 in one of four independent colleges on the Gold Coast, Australia. Schools were participating in a broader evaluation of the LifeFit assess-reflect-connect model of student wellbeing developed by Waters, Farrell and our team. As part of this larger survey of student wellbeing, students completed validated self-report measures of Hope, Efficacy, Resilience and Optimism at a cohort year level during class time. A series of hierarchical multiple regressions demonstrated that PsyCap (including each individual HERO construct, as well as overall model statistic) was a significant predictor of mental health symptoms (reduced anxiety and depression), as well as a significant predictor of student wellbeing (flourishing). Results will be discussed in the context of research and practice aimed at enhancing wellbeing among students through positive psychology curricula within a school context.

## **Adaptive and Maladaptive Emotional Regulation in Childhood Anxiety Disorders**

**Convenor: Helen Dodd, University of Reading, United Kingdom**

**Chair: Helen Dodd, University of Reading, United Kingdom**

**Discussant: Jennifer Hudson, Macquarie University, Australia, and Reading University, United Kingdom**

## **Validating the Radboud Faces Database by Children and the Relation with Social Anxiety**

**Geryal Bijsterbosch, Radboud University, the Netherlands**

**Anke Klein, University of Amsterdam, the Netherlands**

**Iris Verpaalen, Radboud University, the Netherlands**

**Lynn Mobach, Radboud University, the Netherlands and Macquarie University, Australia**

**Gijsbert Bijlstra, Radboud University, the Netherlands**

**Jennifer Hudson, Macquarie University, Australia**

**Mike Rinck, Radboud University, the Netherlands**

To draw valid and reliable conclusions from studies involving facial expression paradigms in children, well-controlled and validated (child) facial stimuli are necessary. The current talk presents two studies that are the first to validate facial emotional expressions of 1) child models and 2) adult models in school-aged children. Additionally, the role of social anxiety, age and gender were examined. In the first study, we validated the Radboud Faces Database child models (RaFD-C) in a large sample of children (N = 547) aged between 8 and 12. In the second study, we validated the Radboud Faces Database Caucasian adult models (RaFD-A) in a large sample of children (N = 652) with the same age range. In addition, associated validation measures as valence, clarity, and model attractiveness were examined. Overall, the results indicated that children were able to accurately identify the emotional expressions on the child faces in approximately 70% of the cases, and adult models in approximately 72% of the cases. The highest accuracy rates in both studies were found for 'happiness', whereas 'disgust' and 'contempt' received the lowest accuracy scores. Children showed roughly the same emotion recognition pattern as adults, but were less accurate in distinguishing emotions. Furthermore, we found no age difference for the child models, but for the adult models, older children were more accurate than younger children. In both studies, girls were slightly more accurate in recognizing the displayed emotions than boys. Additionally, during the presentation, we will also discuss the effect of social anxiety on the perception of adult faces. Do children who score higher on social anxiety make more errors when judging adult faces than children with lower levels of social anxiety? Do children with higher social anxiety scores interpret adult faces as more negative than children who score lower on social anxiety? The current findings imply that researchers can use the RaFD adult pictures in child studies for measuring responses to different emotions, and for manipulating dimensions like valence and clarity. Researchers can select appropriate stimuli for their research using the online available validation data.

## **Evaluation of the Bochum Avoidance and Emotion Regulation Questionnaire for Children (BAER-C)**

**Michael Lippert, Katharina Sommer, Jan Schomberg & Silvia Schneider, Ruhr-Universität Bochum, Germany**

Avoidance plays a critical role in the development and the maintenance of anxiety disorders. However, valid and reliable psychometric measures for children, which differ between different avoidance strategies, are scarce. Derived from Gross' process model of emotion regulation the BAER-C was developed. This new questionnaire assesses the use of three avoidance strategies (cognitive avoidance, behavioural avoidance and security behaviour), as well as reappraisal in anxious situations via child self-evaluation and parent-evaluation. In the present study, 141 healthy German school children aged 8 to 14, as well as 120 children with anxiety disorder and their parents were assessed using the BAER-C as well as other psychometric instruments. Measures of discriminant and divergent validity as well as internal consistency and differences between the groups were calculated. The validation includes a modified Field-Box paradigm to assess a behavioural variable of avoidance. Preliminary results show a satisfactory internal consistency as well as positive convergent and discriminant validity. Children with anxiety disorder show significantly higher avoidance scores than healthy controls. An analysis of the factor structure, as well as the results of the lab study, are still pending and will be part of the presentation. Our analyses suggest that the theory-based BAER-C is a reliable and valid psychometric instrument, which measures different strategies of avoidance and emotion regulation in children. Hence, its use can be recommended for clinical and research settings.

## **The Effect of Cognitive Distraction on Ruminative Processes in Children with Social Anxiety Disorder**

**Julian Schmitz & Leonie Liddle, Leipzig University, Germany**

Cognitive models of social anxiety disorder suggest that ruminative processes before and after social evaluative stress are important disorder maintaining factors. While previous research has focused mainly on social anxiety disorder in adults, much less is known about social anxiety disorder in childhood, a period during which most cases first develop. Further, psychotherapeutic interventions targeting dysfunctional rumination remain mostly unexplored in this age group. In the current study we investigated both anticipatory and post-event rumination in a sample of children (aged 10 – 13 years) with social anxiety disorder and a healthy control group (n=30 per group). Beside rumination, psychophysiological arousal during two experimental social stress tasks was assessed as well as the effect of experimentally induced cognitive distraction. Our results show that children of the clinical group reported more anticipatory and post-event rumination than children of the control group. Further, rumination was related to a higher psychophysiological arousal across both groups. Importantly, cognitive distraction after social stress had a positive effect on post-event rumination. The current study provides novel evidence for the high relevance of rumination as a maintaining factor in childhood social anxiety. Further our results suggest that affected children may profit from cognitive distraction to counter dysfunctional rumination in the aftermath of social stress.

## **Predictors of Anxiety when Children Transition to School: the Role of Behavioural Inhibition, Inhibitory Control and Attention Shifting**

**Helen Dodd, University of Reading, United Kingdom**

**Holly Rayson, Université Claude Bernard Lyon, France**

**Zoe Ryan & Corinne Bishop, University of Reading, United Kingdom**

Childhood Behavioural Inhibition (BI) has been clearly identified as an early risk factor for the development of anxiety disorders. Behavioural Inhibition (BI) can be defined in terms of reactions of withdrawal, wariness, avoidance and shyness in novel, unfamiliar situations (Garcia-Coll, Kagan, & Reznick, 1984; Reznick et al., 1988). In light of the extensive work demonstrating that BI is a risk factor for anxiety, it seems likely that these children will experience elevated anxiety over the transition to school but, to our knowledge, no research has examined BI as a predictor of anxiety during this important period in children's lives. It has further been hypothesised that cognitive processes involved in regulation might moderate the association between BI and anxiety. Therefore, here we examine pre-school BI, inhibitory control and attention shifting as predictors of anxiety when children start school. This research was conducted as part of a longitudinal study of 180 UK preschool-aged children (3-4 years) who completed baseline assessments between 3 and 12 months prior to the start of school. Children's BI was observed using the Lab-TAB and via parent report using the Behavioural Inhibition Questionnaire. All children also completed the NIH-Toolbox early childhood cognitive battery, which includes the fish flanker task as a measure of inhibitory control and a card sort task as a measure of attention shifting. When children started school, their parent provided daily report of their child's anxiety over a 14-day period. As expected, BI was a significant predictor of anxiety when children started school, with BI children experiencing more anxiety than children low in BI. In addition, for both inhibitory control and attention shifting, children experienced less anxiety over the transition to school if they were better able to control their attention. Note, however that the effect only reached statistical significance for attention shifting. There was no evidence for interactions between these regulatory variables and BI suggesting that they act as additive risk factors to affect children's anxiety over the transition to school.

## **Understanding Mechanisms Underlying Adolescent Anxiety: A Bottom-Up Approach to Improving Interventions**

**Convenor: Eleanor Leigh, University of Oxford, United Kingdom**

**Chair: Georgina Krebs, King's College London, United Kingdom**

## **Psychosocial Factors Predicting Social Anxiety in Early Adolescence**

**Ron Rapee, Jasmine Fardouly, Carly Johnco, Natasha Magson, Ella Oar, Miriam Forbes & Cele Richardson, Macquarie University, Australia**

Adolescence is a critical time for the development of emotional distress and resilience. The teenage years are characterised by several major social and personal changes including pubertal development, increased peer influence, romantic experimentation, individuation from family, changes in sleep patterns and diet, and in today's society, increased exposure to social media. Understandably, this is a time of general emotional turbulence and "angst" that often does not reach clinical levels, however, it is during adolescence that we see an increase in the onset of several major mental disorders. One of the primary disorders characterising this developmental period is social anxiety disorder, which has a mean age of onset around 13 years. Prevalence of social anxiety disorder in adolescents is around twice that of pre-teen children. The Risks to Adolescent Wellbeing (RAW) project began in 2016 and aims to understand psychosocial factors associated with mental health during the adolescent period. In 2016/17 525 young people, aged mean 11 years, provided baseline assessments comprised of detailed questionnaires, laboratory tasks, and diagnostic interviews. Key measures included social (e.g., social media use, family relationships, peer relationships), psychological (e.g., cognitive biases, perceptual accuracy, rumination), behavioural (e.g., fear extinction, rejection sensitivity, helplessness, attention), and physiological (e.g., pubertal stage, sleep, BMI) factors. The current talk will describe our results on the predictors of social anxiety, up to two years following baseline. Social anxiety was determined on the basis of both structured diagnostic interview and parent and pre-teen self-reported questionnaires. We evaluated differences between socially anxious pre-teens and their non-anxious peers on a range of psycho-social factors. Results have implications for understanding the development of social anxiety, its prevention, and treatment.

## **Early Adolescent Predictors of Later Anxiety Disorders**

**Jennie Hudson, Macquarie University, Australia, and Reading University, United Kingdom**

**Helen Dodd, Reading University**

**Gemma Sicouri, Macquarie University**

In this longitudinal study, 160 children were assessed at age 12 and 16 years. The sample was drawn from a larger study involving 202 children initially identified as behaviourally inhibited or uninhibited between the ages of 3 years 2 months and 4 years 5 months. The purpose of the current study was to identify early adolescent predictors of anxiety disorders in this at-risk sample. Familial and individual environment variables (including parental psychopathology, stressful life events, parental overinvolvement) were assessed using observation, and child and parent report. Child anxiety symptoms and disorders were assessed using questionnaires and diagnostic interviews.

### **Can the Clark & Wells (1995) Cognitive Model of Social Anxiety Help in Predicting Adolescent Social Anxiety and Peer Victimization? A Prospective Longitudinal Study**

**Eleanor Leigh & Kenny Chiu, King's College London, United Kingdom**

**David Clark, University of Oxford, United Kingdom**

Social anxiety disorder is common, impairing and persistent, and it usually starts in adolescence. Despite the need for effective treatments, there is limited evidence on the specific efficacy of available therapies for adolescents. Cognitive therapy for adults with social anxiety disorder is highly effective and has evidence for treatment specificity. The treatment was developed to reverse the processes invoked in the model proposed by Clark & Wells (1995). Addressing whether these processes are also causally implicated in adolescent social anxiety could provide opportunities to improve treatment outcomes for this population. Most of the studies pertaining to this question so far have been observational studies that have examined the co-variation either between groups or within groups examined at a single time point. Therefore, whilst they indicate an association between each process and adolescent social anxiety, it may be that they are merely correlates or a consequence. In response to this, we undertook a prospective study with a community sample to begin to address whether the processes specified in the Clark & Wells (1995) cognitive model are causally implicated in adolescent social anxiety. We were also interested in how these processes may contribute to the association between social anxiety and social functioning and peer victimisation. We present the findings of the study and discuss the implications.

### **Is Anxiety Sensitivity a Risk Factor for the Development of Obsessive-Compulsive Symptoms in Youth? A Prospective Twin Study**

**Georgina Krebs & Fruhling Rijdsdijk, King's College London, United Kingdom**

**Laurie Hannigan, Nic Waals Institute, Lovisenberg Diaconal Hospital, Norway**

**Alice Gregory, University of London, United Kingdom**

**Thalia Eley, King's College London, United Kingdom**

**Background:** Anxiety sensitivity is viewed as being a broad risk factor for the development of a range of anxiety subtypes. Previous studies have demonstrated a cross-sectional association between anxiety sensitivity and obsessive-compulsive symptoms (OCS), but the prospective relationship remains unknown. Furthermore, most previous studies have been conducted in adult samples, despite the fact that OCS typically emerge during adolescence. In addition, the reasons for the overlap between anxiety sensitivity and OCS are unclear. One view is that OCS arises as a functional consequence of experiencing heightened anxiety sensitivity. An alternative possibility is that the link reflects a common set of underlying genes. In order to test these two hypotheses, genetically-informative studies are needed.

**Methods:** The current study utilised data from the Genesis1219 study of twins and siblings. Adolescents completed self-report questionnaires two years apart (Time 1: N = 2,616, mean age = 15 years, SD = 1.35; Time 2: N = 1579, mean age = 17 years, SD = 1.17) assessing anxiety sensitivity, OCS, anxiety and depression. Linear regression models tested concurrent and prospective associations between anxiety sensitivity and OCS, with and without adjustment for coexisting anxiety and depressive symptoms. Multivariate twin analyses were used to examine genetic and environmental contributions to the cross-sectional and longitudinal associations between anxiety sensitivity and OCS. **Results:** Anxiety sensitivity was associated with OCS concurrently and prospectively, even after controlling for co-occurring anxiety and depressive symptoms. Twin analyses showed that common genetic factors accounted for approximately half of the cross-sectional phenotypic correlation between anxiety sensitivity and OCS, with the remainder being attributable to shared and non-shared environmental influences. In contrast, the longitudinal relationship between anxiety sensitivity and subsequent change in OCS was almost entirely accounted for by the non-shared environment.

**Discussion:** Our findings are consistent with the notion that anxiety sensitivity is a risk factor for OCS during adolescence. The longitudinal association between earlier anxiety sensitivity and later OCS was not simply a reflection of a shared genetic diathesis. On the contrary, the risk conferred by heightened anxiety sensitivity was largely mediated by environmental experiences. Thus, youth with heightened anxiety sensitivity may evoke changes in their environment (e.g. overprotective parenting) and/or respond differently to life experiences (e.g. stressful events), which in turn renders them vulnerable to OCS. Clinical implications of these findings, and directions for future research, will be discussed.

### **Parental Expressed Emotion and Its Relationship with Treatment Outcomes for Adolescents with Co-Morbid Depression and Anxiety**

**Monika Parkinson & Shirley Reynolds, University of Reading, United Kingdom**

**Sarah Halligan, University of Bath**

High expressed emotion in a family (e.g. criticism, hostility, emotional over-involvement) is associated with poorer prognosis and treatment outcomes for a number of psychological conditions in adults (e.g. Hooley, 2007). Expressed emotion has been studied much less with younger populations, particularly in relation to treatment prognosis (Kershner et al., 1996; Asarnow et al., 1993). One previous study found that high levels of parental expressed emotion predicted poorer outcomes for socially anxious adolescents receiving CBT for anxiety (Garcia-Lopez et al., 2007). However, little is known about whether high expressed emotion in parents interferes with successful treatment outcomes for adolescents with internalising disorders more generally. This study will present data from a group of adolescents with co-morbid depression and anxiety disorders who received a focused time-limited psychological intervention for their low mood. Parental expressed emotion was assessed pre-treatment using the brief Five-Minute Speech Sample task (FMSS; Magana et al., 1986) and treatment outcome was determined using self-report symptom measures. The relationship between parental expressed emotion and treatment outcomes in the context of co-morbid adolescent anxiety and depression will be examined. The clinical implications for adolescents experiencing both anxiety and depression will be discussed.

## **Risk Factors and Mechanisms for Psychopathology in the Offspring of Parents with Affective Disorders**

**Convenor: Johanna Löchner, Ludwig-Maximilians University, Germany**

**Chair: Johanna Löchner, Ludwig-Maximilians University, Germany**

**Discussant: Bruce Compas, Vanderbilt University, USA**

### **Infant Risks for Childhood Social Anxiety Disorder**

**Pete Lawrence, University of Southampton, United Kingdom**

**Peter Cooper & Lynne Murray, University of Reading, United Kingdom**

**Cathy Creswell, University of Oxford, United Kingdom**

**Introduction:** Social Anxiety Disorder is common, disabling, and has a median onset of 13 years. Risks include infant behavioural inhibition (BI), parent anxiety disorders and parenting behaviours. We examined i) whether different subtypes of maternal anxiety disorder (Social vs GAD) pose different risks for child anxiety (disorder and symptoms) and ii) whether risk factors in infancy operate additively or interact in predicting anxiety in childhood.

**Methods:** We conducted a longitudinal study in the UK, recruiting 246 mothers during pregnancy, whom we followed up at 4, 10, 14 and 58 months (184 dyads). We assessed maternal anxiety disorder status (SCID-IV) at each time point, maternal behaviours (in socially stressful and non-socially stressful contexts) at 10 and 58 months, BI at 14 months, and child anxiety disorders (ADIS/P) and symptoms (CBCL) at 58 months.

**Results:** i) Maternal Social Anxiety Disorder in infancy, but not maternal GAD, predicted child Social Anxiety Disorder at 58 months; ii) risks did not significantly statistically interact in predicting child Social Anxiety Disorder.

For child anxiety symptoms at 58 months, there was a main effect of concurrent maternal intrusiveness. BI significantly moderated prospective associations between a) maternal comorbid anxiety disorders in infancy and child anxiety symptoms and, b) maternal encouragement at 10 months (only in a socially stressful context, but not a non-socially stressful context) and child anxiety symptoms at 58 months.

**Conclusions:** Maternal Social Anxiety Disorder in infancy, but not GAD, poses a significant risk of Social Anxiety Disorder in childhood. This supports the concept of disorder specificity in the intergenerational transmission of risk. Risks appear to operate cumulatively and interactively, depending on infant temperament, the stressful context for maternal behaviours, timing of maternal behaviours and type of anxiety outcome (disorder or symptoms).

### **Maternal Anxiety as a Predictor of Child and Adolescent Anxiety**

**Jennifer Hudson, Macquarie University, Australia, and Reading University, United Kingdom**

**Helen Dodd, Reading University, United Kingdom**

**Gemma Sicouri, Macquarie University, Australia**

This longitudinal study examined a multitude of early childhood predictors of anxiety symptoms and disorders, including maternal anxiety disorders. The purpose of the study was to identify early life predictors of anxiety across childhood and early adolescence in a sample of at-risk children. The sample included 202 preschool children initially identified as behaviourally inhibited or uninhibited between the ages of 3 years 2 months and 4 years 5 months. Temperament and familial environment variables, including maternal anxiety disorders were assessed using observation and parent report at baseline. Child anxiety symptoms and disorders were assessed using questionnaires and diagnostic interviews at baseline (age 4), and at age 6, 9, 12 and 16 years. In line with our hypotheses, the findings showed that preschool children were more likely to experience anxiety symptoms and disorders over time when there was a history of maternal anxiety disorders.

### **Risk of Depression in the Offspring of Parents with Depression: the Role of Emotion Regulation, Cognitive Style, Parenting and Life Events**

**Johanna Löchner, Ludwig Maximilian University of Munich, Germany**

**Anca Sfärlea & Kornelija Starman, University Hospital, Ludwig Maximilian University of Munich, Germany**

**Frans Oort, University of Amsterdam, the Netherlands**

**Laura Asperud Thomsen, Gerd Schulte-Körne & Belinda Platt, University Hospital, Ludwig Maximilian University of Munich, Germany**

**Objective:** Children of depressed parents are at heightened risk for developing depression, yet relatively little is known about the specific mechanisms responsible. Since preventive intervention for this risk group show only small effects and diminish overtime, it is crucial to uncover the key risk factors for depression. This study compared various potential mechanisms in children of depressed (high-risk; n=74) versus non-depressed (low-risk; n=37) parents and explore mediators of parental depression and risk in offspring.

**Methods:** A German based population sample of N=111 boys and girls from 8 to 17 years were compared regarding children's i) symptoms of depression and general psychopathology, ii) emotion regulation strategies, iii) attributional style, iv) perceived parenting style and v) life events.

**Results:** Children of the high-risk group in comparison to the low-risk group showed significantly more symptoms of depression and general psychopathology, less adaptive emotion regulation strategies, fewer positive life events and fewer positive parenting strategies. Group differences in positive and negative attributional style were small and not statistically significant in a MANOVA test. Maladaptive emotion regulation strategies and negative life events were identified as partial mediators of the association between parental depression and children's risk of depression.

**Conclusion:** The study confirms the elevated risk of depression in children of depressed parents and provides empirical support for existing models of the mechanisms underlying transmission. Interestingly, the high-risk group was characterised by a lack of protective rather than increased vulnerability factors. Those results are crucial for developing more efficient preventive interventions for this specific high-risk population.

## **Cognitive and Learning Mechanisms in Offspring of Mothers with and Without Emotional Disorders of Anxiety and Depression**

**Allison Waters, Griffith University, Australia**

Parental anxiety and depression are significant risk factors for psychopathology in offspring. Despite this heightened risk for developing a mental illness, relatively little is known about the specific mechanisms responsible for the transmission of illness. Biases in the allocation of attention to emotional stimuli, the evaluation of benign events as negative, and impairments in fear learning and extinction characterise emotional disorders in adults and children. The aim of this study was to determine whether these cognitive and learning impairments are mechanisms underlying the transmission of emotional disorders from parents to offspring. This presentation includes findings from an experimental study that assessed fear conditioning and extinction as well as attention and interpretation biases in offspring of mothers with and without emotional disorders of anxiety and depression. The study examined the extent to which a 'risk index' based on the aggregate score formed on the basis of responding on all experimental tasks differentiates high versus low risk offspring and differentially predicts child emotional symptoms over 12 months. Findings suggest that the risk index differentiated high from low risk offspring more reliably than single risk scores and provide evidence that cognitive and learning mechanisms interact to underlie risk for offspring anxiety by virtue of maternal emotional disorders. The present study provides empirical support for existing models of cognitive and learning mechanisms underlying transmission of emotional disorders from parents to offspring. The results will be discussed in relation to preventative interventions targeting these mechanisms in offspring of parents with emotional disorders.

## **Brief Interventions for Adolescent Mental Health**

**Convenor: Laura Pass, University of Reading, United Kingdom**

**Chair: Laura Pass, University of Reading, United Kingdom**

### **A Randomised Controlled Feasibility Study Examining the Efficacy of Brief Cognitive Therapy for the Treatment of Anxiety Disorders in Adolescents**

**Polly Waite & Lucy Taylor, University of Reading, United Kingdom**

**Brynjar Halldorsson, University of Oxford, United Kingdom**

**Ray Percy, University of Reading, United Kingdom**

**Mara Violato & Cathy Creswell, University of Oxford, United Kingdom**

Anxiety disorders affect a quarter of the population during their lifetime, and typically emerge in childhood or adolescence. Anxiety disorders disrupt young peoples' social, emotional and academic development and in the absence of treatment, often follow a chronic course. Although effective treatments, such as Cognitive Behaviour Therapy (CBT) exist, only a small proportion of adolescents with anxiety disorders who need treatment receive them. Barriers to treatment provision include the fact that CBT typically requires 14-16 sessions by a highly qualified therapist and services are stretched – resulting in lengthy waiting lists and limited access to treatment. This highlights the importance of developing new ways of providing effective treatments for adolescent anxiety disorders. This study aimed to assess the feasibility of a future large scale trial using a number of well-defined criteria in order to be able to give a clear indication of the likely success of running a randomised controlled trial to compare a brief cognitive therapy treatment to CBT group therapy for adolescents with anxiety disorders. The feasibility study was a single centre, randomised control trial. Forty eight young people (age 11-17.5 years) attending a University Research Clinic, who met diagnostic criteria for a DSM-5 anxiety disorder, were randomly allocated to receive either (i) Adolescent Cognitive Therapy for Anxiety (ACTA), which involved six 60-90 minute sessions and a booster session, or (ii) group CBT, which involved eight 2-hour sessions and a booster session. As part of the feasibility indicators, patient outcomes, expectations and experiences, as well as health economic factors, were assessed before, at the end of treatment and at a 3 month follow up. This presentation will report the outcomes of this study in relation to the feasibility and acceptability of conducting a definitive RCT comparing these two treatment approaches for adolescents with anxiety disorders.

### **Low Intensity Sleep Intervention with Adolescents in a Secondary Mental Health Service: A Case Series Analysis**

**Rebecca Rollinson, Isabel Price, Jonathan Lyons, Timothy Clarke, Brioney Gee & Ben Carroll, Norfolk and Suffolk NHS Foundation Trust, United Kingdom**

There is increasing evidence of an association between sleep and mental health difficulties in both adolescents and adults. Disrupted sleep is also being cited as a potential causal factor in the development of mental health problems, as well as an area of intervention that can lead to improvements in mental and emotional wellbeing. Sleep interventions based on CBT principles have shown good evidence of effectiveness with adults and adolescents in the general population, but with some difficulty reported in engaging adolescents in this type of work. There are very few studies examining the prevalence of sleep difficulties in adolescents with mental health difficulties however, or indeed the potential effectiveness of sleep interventions with this group. We have therefore carried out a case series analysis (n = 13) looking at the feasibility and accessibility of a low-intensity sleep intervention delivered by an Assistant Psychologist to young people in a secondary care mental health service. We have used routine outcome measures of sleep, psychological distress and functioning to help consider its potential effectiveness.

### **Brief Behavioural Activation (Brief BA) for Adolescent Depression: The Challenges and Opportunities of Delivery in Schools**

**Laura Pass, Shirley Reynolds & Jonathan Totman, University of Reading, United Kingdom**

Adolescent depression is a common and significantly impairing mental health problem, affecting social, academic and family functioning. Access to evidence-based treatment for depression can be challenging due to limited numbers of trained therapists, long waiting lists in specialist mental health services, and difficulties accessing clinic locations. Young people with depression can also struggle with symptoms that can create further barriers to engagement in therapy (e.g. sleep disturbance and fatigue, loss of interest/pleasure, negative self-perceptions including worthlessness which means motivation for therapy can be reduced). This presentation will provide an overview of a feasibility study evaluating Brief Behavioural Activation (Brief BA) for adolescent low mood, delivered within seven secondary schools in the UK. Brief BA (Pass & Reynolds, 2014) is a 6-8 session, manualized intervention adapted from an evidence-based approach with adults (BATD; Lejuez, Hopko et al., 2011) and is designed to be delivered by a range of healthcare professionals. The treatment is based on the behavioural theory of depression and the principle of positive reinforcement. In Brief BA the therapist works 1-1 with a young person to help them identify their personal values, then plan and schedule in intrinsically rewarding valued activities. The challenges of delivering targeted depression assessment and treatment in the school setting will be outlined, including the key issues raised around screening and

identification of depressed adolescents; risk assessment and management; liaison with school staff, parents and others involved in the young person's care; and coordinating therapy sessions around the school schedule. Data will be reported on numbers of young people seen for assessment and Brief BA treatment, as well as onward referrals for young people who were not suitable for the study. Outcome data on engagement in therapy, changes in depression symptoms and day to day functioning over the course of Brief BA will also be reported. Feedback from young people, parents and school staff about their views of Brief BA and delivery of this treatment within school will be presented. This study provides direct clinical evidence about the challenges and opportunities of delivering mental health interventions within secondary schools. These will be discussed in relation to the current transformation plans in the UK to develop school based mental health support teams.

### **Internet-Delivered Cognitive Behavior Therapy for Children and Adolescents with Social Anxiety Disorder – A Randomized Controlled Trial**

**Jens Höglström, Martina Nordh, Maral Jolstedt, Tove Wahlund, Sarah Vigerland, David Mataix-Cols & Eva Serlachius, Karolinska Institutet, Sweden**

**Background:** Social anxiety disorder (SAD) is common among children and adolescents and causes significant impairment in the lives of those affected. Cognitive behavior therapy (CBT) is an effective treatment for SAD but many do not have access to evidence-based treatments such as CBT. An increasing number of studies suggest that Internet-delivered CBT (ICBT) for youth anxiety disorders is a feasible and effective treatment and holds the potential to bridge the current treatment-gap.

**Method:** This randomized controlled trial aimed to test the efficacy of ICBT for youth (10-17 years) with SAD, compared to an active control treatment. Participants (N=103), were randomized to either therapist-guided ICBT or Internet-delivered support and counseling (iSupport). Both treatments were administered online and included ten modules and three skype sessions. The modules included texts, videos, illustrations and homework exercises. Children and parents had weekly contact with an online therapist throughout the treatment. Assessors blind to treatment allocation conducted diagnostic interviews at post-treatment and at a 3-month follow-up. The primary outcome measure was the Clinician Severity Rating (CSR). Participants randomized to iSupport were crossed over to ICBT after the 3-month follow-up.

**Results:** The study is ongoing and all participants have been included in the trial (the last participants are currently finishing treatment). The sample was found to have moderately severe social anxiety (CSR; M=5.0, SD=0.95), a mean age of 14.5 years and a 4-year mean duration time of SAD (since onset). Around 40% of the sample had one or more comorbid disorders, mostly internalizing conditions. The primary endpoint will be reached in April 2019 for all participants and further results will be presented in the symposium.

**Discussion:** ICBT may increase the availability of evidence-based treatments such as CBT, but little is known about how this type of treatment works for youth with SAD. The results from this trial will contribute with important information about efficacy, cost-effectiveness and mediating variables in ICBT treatment of children and adolescents with SAD.

### **Recent Developments in Attention Biases and Attention Bias Modification in Pediatric Anxiety**

**Convenor: Jeremy Pettit, Florida International University, USA**

**Chair: Jeremy Pettit, Florida International University, USA**

**Discussant: Nader Amir, San Diego State University, USA**

### **Eye-Tracking of Attention to Threat in Child and Adolescent Anxiety: A Meta-Analytic Study**

**Jennifer Lau & Stephen Lisk, King's College London, United Kingdom**

Attention biases for threat may reflect an early risk marker for anxiety disorders. Yet questions remain on the direction and time-course of anxiety-linked biased attention patterns in youth. A meta-analysis of eye-tracking studies of biased attention for threat was used to compare the presence of an initial vigilance towards threat and a subsequent avoidance in anxious and non-anxious youth. Pubmed, Psycharticles, Medline, Psychinfo, and Embase were searched using anxiety, children and adolescent, and eye-tracking-related key terms. Study inclusion criteria were: studies including participants  $\leq 18$  years; reported anxiety using a standardised measure; measured attention bias using eye-tracking with a task containing a free-viewing element; comparison of attention towards threatening and neutral stimuli; and available data to allow effect size computation for at least one relevant measure. A random effects model estimated between- and within-group effects of first fixations toward threat and overall dwell time on threat. Thirteen eligible studies involving 798 participants showed that neither youth with or without anxiety showed significant bias in first fixation to threat versus neutral stimuli. However anxious youth showed significantly less overall dwell time on threat versus neutral stimuli than non-anxious controls ( $g = -0.26$ ). Contrasting with adult eye-tracking data and child and adolescent data from reaction time indices of attention biases to threat, there was no vigilance bias towards threat in anxious youth. Instead anxious youth were more avoidant of threat across the time-course of stimulus viewing. Developmental differences in attention networks and their relationship with anxiety are discussed.

### **Attention Mechanisms and Socioemotional Functioning in Infancy: Taking a Person-Centered Approach**

**Koraly Perez-Edgar, Alicia Vallorani & Berenice Anaya, Pennsylvania State University, USA**

**Santiago Morales, The University of Maryland, USA**

**Kristin Buss, Pennsylvania State University, USA**

**Vanessa LoBue, Rutgers University, USA**

Historically, much of the developmental literature has focused on broad patterns of behavior and knowledge, presuming that constructs of interest represent fairly-universal patterns of development that have stable, shared mechanisms. To this extent, the available data primarily speak to nomothetic patterns of development. In addition, there has been a traditional divide between cognitive, “affect-neutral” mechanisms of development, and socioemotional mechanisms that are thought to function prior to, or in spite of, cognitive control mechanisms. Yet, we know that children differ in the timing, rate, and extent of both cognitive and socioemotional development, and that these mechanisms are interwoven in both daily functioning and long-term outcomes. Understanding these interconnections will help us better understand variation within and across individuals, revealing more complex developmental mechanisms. A well-powered individual difference study requires larger samples chosen to reflect heterogeneity across the constructs/mechanisms of interests. Children are then asked to complete multiple paradigms designed to target conditions or processes that are tied to the variations of interest. This presentation will draw on two studies to illustrate how researchers can take on an individual differences approach. Both studies build on the argument that individual differences in attention may shape socioemotional development. Temperamentally extreme children preferentially attend to novelty and uncertainty as infants, show greater difficulty deploying attention when under stress as young children, and, by adolescence, preferentially attend to threat-

cues. Although the literature presupposes that the link between attention and socioemotional functioning arises early in life, this proposition has had little direct empirical testing.

The first study examines the early emergence of the temperament-emotion-attention link in a large (N=260) cross-sectional study of infants between the ages of 4- and 24-months. The protocol included three eye-tracking tasks (Dot-Probe, Overlap, Vigilance) capturing associated components of attention to threat questionnaires and laboratory observation of temperament, and maternal self-report. We will present a latent profile analysis (LPA) characterizing patterns of affect-biased attention across tasks. We found that negative affect increases with age,  $t=2.15$ ,  $p=0.03$ , which in turn is associated with affect-biased attention,  $t=2.13$ ,  $p=0.04$ , but only in conjunction with elevated maternal anxiety,  $ab = 0.004$ , 95% CI=[0.000, 0.010] (Figure 1).

The second study involves longitudinal assessment of infants at 4, 8, 12, 18, and 24 months of age (N to date=250). The infants complete the same protocol outlined in the initial cross-sectional study at each time point. We will present a latent transition analysis (LTA) to capture shifting patterns of attention to threat over the first two years of life. We will then examine three core moderators of early socioemotional development: Maternal anxiety levels, temperamental negative affect, and environmental instability.

We will discuss the promises, and complexities, of implementing protocols designed to generate samples with the necessary power to detect variation across individuals and within individuals over time.

### **A Randomized Controlled Trial of Attention Bias Modification Treatment in Youth with Cognitive Behavior Therapy-Resistant Anxiety Disorders**

**Jeremy Pettit, Michele Bechor & Yasmin Rey, Florida International University, USA**

**Rany Abend, National Institute of Mental Health, USA**

**Michael Vasey, Ohio State University, USA**

**Daniel Pine, National Institute of Mental Health, USA**

**Yair Bar-Haim & Wendy Silverman, Yale University, USA**

Cognitive behavioral therapy (CBT) is the strongest evidence-based psychosocial treatment for anxiety disorders in children and adolescents (hereon referred to as youth). Nevertheless, up to 50% of youth with anxiety disorders do not respond to CBT. No randomized controlled efficacy trials of treatment augmentation strategies for CBT-resistant anxious youth exist. There is critical need to have alternative treatments available for this population given that anxiety is associated with significant distress and impairment in functioning and poses substantial burden on the health-care system. This presentation reports the first randomized controlled efficacy trial that tests an augmentation strategy for youths who continued to meet criteria for an anxiety disorder, despite having completed 12 to 14 sessions of CBT.

Sixty-four youths (34 boys; M age=11.7 years) who continued to meet diagnostic criteria for anxiety disorder after completing CBT were randomized to eight sessions of either attention bias modification treatment (ABMT) or attention control training (ACT). ABMT and ACT consisted of dot-probe attention training trials presenting angry and neutral faces; probes appeared in the location of neutral faces on 100% of trials in ABMT and 50% of trials in ACT. Independent evaluators, youths, and parents completed ratings of youth anxiety severity, and youths completed measures of attention bias to threat and attention control at pretreatment, posttreatment, and two-month follow-up.

Both arms produced statistically significant reductions in anxiety severity, with no differences between arms. Specifically, anxiety severity on the independent evaluator rated Pediatric Anxiety Rating Scale (PARS) and the youth and parent rated Screen for Child Anxiety Related Emotional Disorders – Child/Parent versions (SCARED-C/P) was significantly reduced at posttreatment and reductions were maintained at two-month follow-up. Primary anxiety disorder diagnostic recovery combined across arms was 50% at posttreatment and 58% at follow-up. Attention control, but not attention bias to threat, was significantly improved at posttreatment in both arms, and the improvement was maintained at two-month follow-up.

This is the first study to show anxiety can be reduced in youth who did not respond to CBT, and that anxiety-reducing effect is found using both attention training contingency schedules. These findings, along with increases in attention control in both arms, raise intriguing questions about mechanisms of anxiety reduction in CBT-resistant youth with attention training that require further research.

### **Toward New Technologies: Computerized Treatment for Depression and Anxiety in Children and Adolescents**

**Convenor: Sanne Rasing, Utrecht University and GGZ Oost Brabant, the Netherlands**

**Chair: Sanne Rasing, Utrecht University and GGZ Oost Brabant, the Netherlands**

### **The Effectiveness of Technologically Delivered Interventions for Child Anxiety and Depression: A Systematic Review**

**Paul Stallard, University of Bath, United Kingdom**

**Rebecca Grist, University of Brighton, United Kingdom**

**Abigail Croker & Megan Denne, Oxford Health NHS Foundation Trust, United Kingdom**

This paper will summarise the results of a systematic review and meta-analysis investigating the effect of technology delivered interventions for children and adolescents (aged up to 18 years) with depression and anxiety. A systematic search of eight electronic databases identified 34 randomized controlled trials involving 3113 children and young people aged 6–18. The results demonstrate a small effect in favor of technology delivered interventions compared to a waiting list control group. Type of control condition, problem severity, therapeutic support, parental support, and continuation of other ongoing treatment significantly influenced effect sizes.

### **Accessible Behavioral Intervention for Adolescent Depression: Implications from Two Randomized Controlled Trials**

**Naira Topooco, Linköping University, Sweden, and Center for M2Health, USA**

**Gerhard Andersson, Sandra Byléhn, Ellen Dahlström, Jenny Holmlund, Johanna Lindegaard, Sanna Johansson & Linnea Åberg, Linköping University, Sweden**

**Background.** Depression is a common and serious problem among adolescents. Limited resources and stigma hinder adolescents from accessing care and cause delays or impediments in their evaluation and treatment. We investigated the efficacy of internet-delivered cognitive behavior therapy program (ICBT) blended with real-time therapist sessions via chat; ‘blended treatment’, for adolescent depression. The intervention, which explored access and stigma along with efficacy, was offered to adolescents at national level without the need to visit a care facility or school counselor or inform guardians.

**Methods.** In two randomized trials, adolescents 15-19 years of age were recruited through community settings across Sweden and were allocated to either 8 weeks of treatment or to minimal attention control. Depression level, as measured with the BDI-II, was assessed at



baseline, at post-treatment and at 6/12 months following treatment (in the intervention group.) Studies were conducted in the years 2015 and 2017.

Results. The demographics were similar across studies and are presented as one sample: Participant were female (94.3%), most of whom were minors (55.7%), and whom were currently experiencing major depressive episode (77.1%). The majority reported living in a small town or the country side (72.1%) and nearly one third (30.0%) reported that they had not informed their parent(s) about their depressive state. Outcomes: In the initial study (n = 70), the average treatment completion (as defined by total module and chat sessions completion) was 79%. ICBT participants demonstrated a significant decrease in depression symptoms from pre-to post treatment compared to controls (F (1,67) = 6.18, P < .05), corresponding to a large between-group effect (d = 0.71, 95%, CI: 0.22-1.19). A significantly higher proportion of ICBT participants (42.4%) than controls (13.5%) showed a 50% decrease in BDI-II score post-treatment (P < 0.01). In the second study (n = 70), the average treatment completion was 71%. ICBT participants demonstrated a significant decrease in depression symptoms from pre-to post treatment compared to controls (F (1,67) = 22.23, P < .001), corresponding to a large between-group effect (d = 0.86, 95%, CI: 0.37-1.35). Significant between-group effects were observed in secondary self-/clinician-reported depression outcomes (P's < .005). Clinically significant improvement was found in 46% of ICBT participants compared to 11% in the control group (P = .001).

Conclusions. The studies helped reveal what kind of population is to be expected when providing an online alternative to care. Findings on participant age, geographic location, symptom severity, and guardian awareness are of particular interest in relation to the methods used and findings on treatment effect. The results indicate that if the aim is to reach individuals in need at an early stage of the disorder, the conditions for young people to receive behavioral mental health intervention may benefit from becoming more inclusive.

### **Effectiveness of Blended Cognitive Behavioural Therapy in Clinically Depressed Adolescents: A Pragmatic Quasi-Experimental Controlled Trial**

**Sanne Rasing & Yvonne Stikkelbroek, Utrecht University and GGZ Oost Brabant, the Netherlands**

**Denise Bodden, Utrecht University and Radboud University, the Netherlands**

CBT is described as an effective intervention to treat depressive disorders. However, research has shown that up to 57% of patients drop out during therapy and that 50% of the adolescents is not free of depressive symptoms after treatment. Alternative interventions, such as Interpersonal Psychotherapy and Problem-Solving Therapy, are comparable to CBT in terms of effectiveness, but also in terms of drop-out and remission-rate. So, offering other forms of treatment does not seem to be the solution to improving effectiveness in treating depressive disorders in adolescents. Offering CBT as blended intervention might be. Earlier research showed that online CBT and face-to-face CBT have similar effects in treatment of depressive disorders in adults. It is suggested that online interventions increase motivation, treatment expectancies, independence, accessibility, and decrease resistance and drop-out, because it can be easily tailored to the needs of patients. Furthermore, adolescents seem to prefer self-help. Combining online treatment with therapist guidance through email, online chat and face-to-face sessions is associated with higher completion of treatment. Moreover, therapeutic guidance in treatment of depression is strongly suggested because the suicide risk has to be monitored. In order to evaluate the effectiveness of a blended CBT treatment protocol for depressed adolescents, a pragmatic quasi-experimental controlled trial was conducted in which blended CBT was compared to face-to-face CBT (N = 44) and treatment-as-usual (N = 44), the latter both collected in a previous RCT. The same in- and exclusion criteria were used: adolescents between 12 and 21 years old, with a clinical diagnosis of a depressive disorder, and referred to one of the participating mental health institutions. During this presentation, an overview of literature on treatment of depressive disorders in adolescents with a specific focus on evidence of effectiveness in psychiatric care will be presented. Further, first and preliminary results will be presented of the ongoing study on blended CBT, compared to face-to-face CBT and treatment as usual. Post-intervention results on effectiveness, differences in symptom response, and differences in treatment drop-out between the three conditions will be presented, while 6- and 12-month follow-up measures are still in progress.

### **The Effect of the Video Game 'Mindlight' with and Without Elements of Cognitive Behavioral Therapy on Anxiety Symptoms of Children with Autism Spectrum Disorder**

**Lieke Wijnhoven, Daan Creemers & Ad Vermulst, GGZ Oost Brabant and Radboud University, the Netherlands**

**Roy Otten, Pluryn and Radboud University, the Netherlands**

**Rutger Engels, Erasmus University, the Netherlands**

**Isabela Granic, Radboud University, the Netherlands**

In the clinical setting, a large proportion of children with autism spectrum disorder (ASD) experience anxiety symptoms. Because anxiety is an important cause of impairment for children with ASD, it is necessary that effective anxiety interventions are implemented for these children. Recently, an applied game called Mindlight has been developed that is focused on decreasing anxiety in children. This approach is based on recent research suggesting that video games might be suitable as an intervention vehicle to enhance mental health in children. A randomized controlled trial (RCT) examined whether Mindlight was effective in decreasing anxiety symptoms in 122 children with ASD in the age of 8-16 years old in a clinical setting. The results of this study showed that Mindlight was significantly more effective than a control game in decreasing parent-rated anxiety symptoms, but that Mindlight was not more effective than a control game in decreasing child-rated anxiety symptoms. Based on experiences during the RCT, it was hypothesized that the addition of elements of cognitive behavioral therapy (CBT) could further enhance the effect of Mindlight. This hypothesis was tested in a multiple baseline study with eight children with ASD and anxiety symptoms in the age of 8-12 years old. It was expected that the addition of CBT-elements could lead to a better generalization of coping skills to daily life and in this way to a higher total decrease of anxiety symptoms in children with ASD. Results showed that Mindlight in combination with CBT is a potential effective treatment for at least some children with ASD and anxiety. Future research is needed to give a better insight in the individual factors that could predict which type of children with ASD benefit from which type of anxiety treatment.

## **Identifying and Overcoming Challenges in Therapy for Adolescents with Depression**

**Convenor: Shirley Reynolds, University of Reading, United Kingdom**

**Chair: Shirley Reynolds, University of Reading, United Kingdom**

### **Engaging Young People in Psychological Therapy**

**Joanna Henderson, Cundill Centre University of Toronto, Canada**

Engagement of young people in psychological therapies can be challenging. The CAYPE in Ontario, Canada research program aims to understand youth experiences with psychotherapy in real-world youth mental health settings. In this study youth with documented histories of mood and/or anxiety concerns (N = 88) who had and had not experienced psychotherapy completed questionnaires. A subset (N=60) participated in qualitative interviews about their experiences with psychotherapy (when relevant). A substantial proportion of youth reported negative effects perceived to stem from psychotherapy, including increased hopelessness. Qualitative interviews provide insights into the contexts and factors potentially affecting youth psychotherapy experiences. Implications for youth psychotherapy and future research will be discussed

### **Do Psychological Treatments for Adolescent Depression Reduce Sleep Problems?**

**Faith Orchard & Shirley Reynolds, University of Reading, United Kingdom**

**Ian Goodyer & Raphael Kelvin, University of Cambridge, United Kingdom**

Persistent sleep problems are one of the most common symptoms of depression in adolescence. These are not typically targeted in psychological treatments and it is not known if psychological treatment for depression improves sleep problems. This talk will present data from the IMPACT RCT for depression in adolescents. This is a large, multi-centre, randomised controlled trial (Goodyer et al., 2017b). Young people with a diagnosis of depression (N = 465) were randomised to one of three psychological treatments. Sleep symptoms were assessed at baseline, post treatment and at 1 year follow up with the Schedule for Affective Disorders and Schizophrenia in School-Age Children (K-SADS), and the Mood and Feelings Questionnaire (MFQ). At baseline, 92% of young people described sleep difficulties. With the exception of hypersomnia, these sleep problems significantly decreased from baseline to end of treatment and this decrease was maintained at follow up. However, residual sleep symptoms were reported by 33% of participants, including those who no longer met diagnostic criteria for depression. This suggests that young people who report persistent and residual difficulties with sleep after treatment for depression may benefit from being offered adjunctive sleep interventions as part of their care.

### **'I Just Stopped Going': A Mixed Methods Investigation into Types of Therapy Dropout in Adolescents with Depression**

**Sally O'Keefe, University College London, United Kingdom**

What does it mean to 'drop out' of therapy? Many definitions of 'dropout' have been proposed, but the most widely accepted is the client ending treatment without agreement of their therapist. This study aimed to identify whether there are meaningful categories of dropout and to test whether this refined categorisation of dropout was associated with clinical outcomes. This mixed-methods study used a subset of data from the IMPACT trial, which investigated psychological therapies for adolescent depression. Adolescents were randomly allocated to a treatment arm (Brief Psychosocial Intervention; Cognitive-Behavioural Therapy; Short-Term Psychoanalytic Psychotherapy). Ninety nine adolescents, aged 11-17 year took part: 32 had dropped out of treatment and 67 who completed therapy were included. Three types of dropout were constructed: 'dissatisfied' dropout, 'got-what-they-needed' dropout, and 'troubled' dropout. 'Dissatisfied' dropouts reported stopping therapy because they did not find it helpful. 'Got-what-they-needed' dropouts reported stopping therapy because they felt they had benefitted from therapy. 'Troubled' dropouts reported stopping therapy because of a lack of stability in their lives. Clinicians should be aware of the range of issues experienced by adolescents in treatment that lead to disengagement. Our typology of dropout may provide a framework for clinical decision-making in managing different types of disengagement from treatment.

### **Engaging Young People in Treatment for Low Mood/ Depression: The Brief Behavioral Activation Approach, Resources to Support Therapy and Use of Embedded Routine Outcome Measures**

**Laura Pass, University of East Anglia, United Kingdom**

**Shirley Reynolds, University of Reading**

Symptoms of depression (e.g. anhedonia loss of interest/pleasure, negative self-perceptions including worthlessness, cognitive difficulties, sleep disturbance and fatigue). can make day to day life very challenging for depressed young people and interfere with engaging in psychological therapy. Brief Behavioural Activation (Brief BA; Pass & Reynolds, 2014) is an adolescent specific adaptation of the Brief Behavioral Activation Treatment for Depression (BATD; Lejuez et al., 2001, 2011). The Brief BA approach was designed with the involvement of depressed young people. It aims to support them, and their parents/carers and to help clinicians to successfully engage young people in therapy. This presentation will highlight the key features of Brief BA that maximise accessibility and acceptability to young people with low mood/depression. These include consideration of the development level of the young person and simple strategies to minimise burden, as well as key issues around monitoring and managing risk. Practical ways to overcome potential barriers posed by symptoms of depression will be discussed in terms of the development of the approach and therapy supporting resources. Completion and (clinically relevant) discussion of routine outcome measures assessing symptoms, functioning and the therapeutic alliance at every therapy session were included, and also made central to supervision. Routine outcome measures will be discussed in relation to tracking therapy progress and how their use may have impacted on attendance, engagement, and outcomes.

## **Cognitive Bias Training in Anxiety: Translating Experimental Research to Clinical Applications in Youth**

**Convenor:** Elske Salemink, Utrecht University, the Netherlands

**Chair:** Elske Salemink, Utrecht University, the Netherlands

**Discussant:** Eni Becker, Radboud University Nijmegen, the Netherlands

### **A School-Based Comparison of Positive Search Training to Enhance Adaptive Attention Regulation with a Cognitive-Behavioural Intervention for Reducing Anxiety Symptoms in Children**

**Allison Waters, Griffith University, Australia**

**Steven Candy, Scandy Statistical Modelling Pty Ltd, Australia**

**Melanie Zimmer-Gembeck & Trisha Groth, Griffith University, Australia**

**Michelle Craske, University of California, Los Angeles, USA**

**Brendan Bradley & Karin Mogg, University of Southampton, United Kingdom**

Many children experience anxiety but have limited access to empirically-supported interventions. School-based interventions using brief, computer-assisted training provide a viable way of reaching children. Recent evidence suggests that computer-delivered 'positive search training' (PST) reduces anxiety in children. This multi-informant, randomised controlled trial compared classroom-based, computer-delivered PST (N = 116) to a classroom-based, therapist-delivered cognitive-behavioural intervention (CBI) (N = 127) and a curriculum-as-usual control condition (CAU) (N = 60) in 7-11 year old children. Primary outcomes were child and parent report of child anxiety symptoms. Secondary outcomes were child and parent report of child depressive symptoms and child attention biases. Outcomes were assessed before and after the interventions, and six- and 12-months post-intervention. Teacher report of children's social-emotional functioning was assessed at pre- and post-intervention. As expected, compared to CAU, children receiving PST and the CBI reported greater anxiety reductions by post-intervention and six-month follow-up but, unexpectedly, not at 12-month follow-up. Partially consistent with hypotheses, compared to CAU, parents reported greater anxiety reductions in children receiving PST, but not the CBI, at 12-month follow-up. Contrary to expectation, there was a pre- to post-intervention increase in threat attention bias in PST compared to the other conditions, with no significant differences at follow-up. In support of hypotheses, teachers reported higher post-intervention social-emotional functioning in Year 5 students receiving the CBI but, unexpectedly, lower post-intervention functioning in students receiving PST. There were no effects on depressive symptoms. Further research is needed on strategies to maintain long-term benefits and determine preventative versus early intervention effects.

### **Cognitive Bias Modification Reduces Social Anxiety Symptoms in Socially Anxious Adolescents with Mild Intellectual Disabilities**

**Elske Salemink, Utrecht University, the Netherlands**

**Anke Klein, University of Amsterdam, the Netherlands**

**Elske Salemink, Utrecht University, the Netherlands**

**Eva de Hullu, Open University, United Kingdom**

**Esther Houtkamp, Marlissa Papa & Mariet van der Molen, Vrije Universiteit of Amsterdam, the Netherlands**

The goal of this study was to examine the effects of Cognitive Bias Modification training for Interpretation (CBM-I) in socially anxious adolescents with Mild Intellectual Disabilities (MID). A total of 69 socially anxious adolescents with MID were randomly assigned to either a positive or a neutral control-CBM-I-training. Training included 5 sessions in a three-week period, and each session consisted of 40 training items. Adolescents in the positive training group showed a significant reduction in negative interpretation bias on the two interpretation bias tasks after training compared to adolescents in the control-training group. Furthermore, in contrast to the control-training group, adolescents in the positive training reported a significant reduction of their social anxiety symptoms 10 weeks post-training.

### **Effectiveness of an Online Interpretation Training as a Pre-Treatment for Cognitive Behavior Therapy for Obsessive Compulsive Disorder in Youth: A Randomized Controlled Trial**

**Annelieke Hagen, University of Amsterdam, the Netherlands**

**Elske Salemink, Utrecht University, the Netherlands**

**Lidewij Wolters, de Bascule, the Netherlands, and Norwegian University of Science and Technology, Norway**

**Annelieke Hagen, University of Amsterdam, the Netherlands**

**Vivian Op de Beek, de Bascule, the Netherlands**

**Pascal Dol, Child and Adolescent Psychiatry Arkin Jeugd & Gezin, the Netherlands**

**Els de Hann, University of Amsterdam, the Netherlands**

Cognitive Bias Modification – Interpretation (CBM-I) training is a promising candidate for improving current treatment for pediatric obsessive-compulsive disorder (OCD). First, this online training can be offered during waitlist periods for CBT. Second, given that CBM-I training and cognitive behavioral therapy (CBT) have a different approach in targeting cognitive processes, these interventions could be complementary. Third, CBM-I training is a relatively cheap intervention as no therapist time is needed. In the present study we describe a renewed CBM-I training for children and adolescents with OCD. The objectives of the study are to examine 1) whether the CBM-I training is an effective intervention during a waitlist for CBT, and 2) whether augmenting CBT with CBM-I improves treatment effect. Participants (children 8-18 years with OCD) were randomly assigned to either a CBM-I training or a waitlist, both followed by CBT. Assessments (CY-BOCS) were conducted at baseline, post-CBM-I/waitlist and start CBT, after four, eight and twelve sessions CBT, and post-CBT. Results indicated that the CBM-I training was more effective in reducing OCD severity than a waitlist, with a medium effect size. The CBM-I training did not result in a faster decline of symptoms during subsequent CBT compared to the waitlist condition. However, participants in the CBM-I training condition started CBT with less severe OCD, and this advantage was maintained during CBT. The CBM-I training did not affect CBT effectiveness on comorbid problems. Limitations of the study are that we cannot exclude the possibility of a placebo effect rather than a training effect because the CBM-I was not compared to an active control condition, and missing data for secondary outcomes at the follow-up assessment may have limited our results. In conclusion, CBM-I training, offered as a pre-treatment for CBT, may address several challenges of current treatment and seems a promising intervention to improve treatment for pediatric OCD.

## **Acceptability and Feasibility of a Brief Training Programme Targeting Attention and Interpretation Biases for Threat in Youth with a History of Maltreatment**

**Jennifer Lau, King's College London, United Kingdom**

The physical, sexual and emotional abuse and neglect of children and adolescents is a significant global problem, predicting many serious and costly mental health disorders. To identify effective and accessible interventions to combat problems as they arise in development, cognitive neuroscience research has advocated targeting 'latent vulnerability factors' mediating between adversity and symptomatic outcomes. Tendencies to selectively attend towards threat and to draw threatening, hostile interpretations of ambiguous situations are biases at two stages of information-processing known to characterise victims of childhood maltreatment in youth. Over the last decade, Cognitive Bias Modification (CBM) training programmes that aim to train more adaptive styles of attention-orienting and control towards benign/positive information (CBM-A) and styles of interpreting ambiguous cues in a non-threatening manner (CBM-I) have been developed and implemented in adults with a range of psychiatric conditions, and extended for use in children and young people, largely with anxiety and depression, but also with aggression. Here, we assess the feasibility, acceptability and potential effectiveness of a computerised training tool that targets these attention and interpretation biases in young people with a history of victimisation. We used a multi-session CBM-A and interpretation CBM-I training protocol that respectively used an emotional visual search task to boost attentional control mechanisms and inhibit more involuntary patterns of attention orienting towards threat and an ambiguous scenarios task to encourage resolution of situations in a benign/positive direction. No study has investigated the viability of CBM-A and CBM-I in adolescent victims of maltreatment. To enhance the generalizability of our findings across global contexts, parallel data collection initiatives occurred in the UK and Nepal with young people who had experienced maltreatment. In this talk, we present data from a pilot study followed by a feasibility trial.

## **Cognitive Behavioral Therapy and Childhood Anxiety: Innovative Directions**

**Convenor: Bonny van Steensel, University of Amsterdam, the Netherlands**

**Chair: Bonny van Steensel, University of Amsterdam, the Netherlands**

**Discussant: Maaïke Nauta, University of Groningen, the Netherlands**

## **Does Comorbid Depression Play an Important Role in the Effectiveness of Cognitive Behavioral Therapy for Childhood Social Anxiety?**

**Jeanine Baartmans, Bonny van Steensel, Anke Klein, Reinout Wiers & Susan Bögels, University of Amsterdam, the Netherlands**

In general, cognitive behavioural therapy (CBT) has been proven to be an effective treatment for childhood social anxiety. Nevertheless, around 40% of the children who suffer from an anxiety disorder remain having symptoms after treatment (James, James, Cowdery, Solar, & Choke, 2013). Recent studies suggest that especially children with a social anxiety disorder show worse outcomes after treatment than children with other anxiety disorders (e.g. Hudson et al., 2015). Since social anxiety disorder has a relatively high comorbidity rate with depressive disorders (Essau, Conradt, Petermann, 1999), the goal of the current study was to investigate whether this comorbidity plays a role in the lower effectiveness of CBT for childhood social anxiety disorder than for other anxiety disorders. Participants of the study were 159 children aged between 7 and 18 years old. All children were diagnosed with a primary anxiety disorder and referred to mental health care where they received CBT for their anxiety disorder. The children and their parents reported on their anxiety (and depression) in clinical interviews and questionnaires pre-treatment, post-treatment, three months after the treatment and one year after the treatment. Results of the current study showed that there were indeed worse treatment outcomes for children with a social anxiety disorder than for children with another anxiety disorder, and that depression was more often comorbid with social anxiety disorder than with other anxiety disorders. Additionally, multilevel analyses showed different patterns for the role of comorbid depression for different outcome measures. On the clinical interview measures there was a difference in decrease of the anxiety severity between the group with a primary social anxiety disorder and the group with another primary anxiety disorder, but the presence or not presence of a mood disorder pre-treatment did not predict different outcomes. However, the presence of a mood disorder pre-treatment was related to a larger decrease of anxiety symptoms reported on the questionnaires whereas having a primary social anxiety disorder or another primary anxiety disorder did not predict any differences in questionnaire reported anxiety symptoms. The total anxiety severity and symptoms decreased less when children were diagnosed with a primary social anxiety disorder than with a primary other anxiety disorder, but children profited more from the treatment when they had a comorbid mood disorder than when they did not have a comorbid mood disorder. Implications of the comorbidity between childhood (social) anxiety and depression and experienced treatment effects will be discussed.

## **The Association of Safety Learning Deficits and Fear Extinction in Children with Anxiety Disorders – A Classical Fear Conditioning Study**

**Dirk Adolph, Verena Pflug & Michael Lippert, Ruhr-University Bochum, Germany**

**Hanna Christiansen, Philipps-University Marburg, Germany**

**Alfons Hamm, University Greifswald, Germany**

**Tina In-Albon, University Koblenz Landau, Germany**

**Marcel Romanos, Julius-Maximilians University Würzburg, Germany**

**Brunna Tuschen-Caffier, Albert-Ludwigs-University Freiburg, Germany**

**Hans-Ulrich Wittchen, Technical University Dresden, Germany**

**Silvia Schneider, Ruhr-University Bochum, Germany**

Symptoms of Anxiety disorders (AD) and depression (DEP) frequently co-occur and show substantial overlap. Moreover, there is still considerable debate on how depression and anxiety symptomatology might be separable in terms of their underlying pathogenic processes. While both show a liability to be associated with enhanced negative affectivity, there is also evidence showing that patients suffering from these disorders are distinguishable on basis of their affective responses. For example, it has previously been shown that blunted safety learning is uniquely associated with anxiety-symptom severity (i.e. independent of depression-symptoms) in adult AD and DEP. It is yet unclear, if this relationship also holds for childhood symptoms of anxiety and depression. To test this, in the present study, N=117 children (n=71 female) aged 7-16 years (M=10.7, SD=2.1) suffering from various anxiety disorders (i.e. specific phobia, social phobia, separation anxiety) underwent classical differential conditioning. In addition to diagnoses by clinical interview, intensity of anxiety and depression symptomatology were assessed by questionnaire. In line with previous findings we found that also in childhood AD perturbed safety learning (i.e. elevated responses towards the CS-) is uniquely associated with anxiety symptom severity (i.e., independent of depression

symptomatology). The current data thus extend previous knowledge and add to the literature on mechanisms in childhood AD. Results are discussed in light of the NIMH's Research Domain Criteria (RDoC) Initiative.

### **Anger in Anxious Children: Fighting Threat or Reacting to Non-Reward. Possible Implications for Treatment of Comorbid Children**

**Leonie Kreuz, Maaïke Nauta, Elise Bennik & Peter de Jong, University of Groningen, the Netherlands**

Anger in anxious children: fighting threat or reacting to non-reward. Possible implications for treatment of comorbid children. A substantial amount of children with anxiety disorders suffers from comorbid oppositional and anger problems. Children with this comorbid profile profit less from current treatments, present with greater impairment and have an increased risk for future mental health problems. Improving insight in the underlying mechanism of this comorbidity is needed to improve prospects for these children. The temperamental characteristics of punishment sensitivity (PS) and reward sensitivity (RS) in combination with situational characteristics might help in explaining this intriguing profile in children. We propose two sources leading to anger in anxious children, namely through threat and through frustration of non-reward. We hypothesized that punishment sensitivity is especially related to anger out of threat situations, whereas reward sensitivity is especially related to anger out of non-reward situations. Insight in these different pathways to anger in anxious children might help in improving the fit between treatment techniques and the clinical profile of the child, therefore resulting in better outcomes for the child.

As a first step we conducted a study in 164 children (age 12-18) examining these two different pathways to anger and the moderating role of punishment and reward sensitivity. Children read through 39 anger evoking scripts and rated the level of anger and anxiety these situations would evoke in them and how they interpreted these situations with regard to threat and non-reward. Furthermore, they filled in questionnaires on punishment and reward sensitivity, anxiety and externalizing symptoms.

A hierarchical regression analysis showed that punishment sensitivity predicted the total anger score from the situations, over and above reward sensitivity. Furthermore, the interaction of punishment sensitivity with threat predicted the total anger score from the situations over and above the interaction of reward sensitivity with non-reward, indicating that both pathways help in explain anger in anxious children. Multilevel analyses will be conducted to zoom in on within person differences in evoked emotions in the specific situations and explaining them by situational characteristics and temperament. Results will be presented and possible implications for treatment of comorbid children will be discussed.

### **Therapists' Characteristics and Beliefs About the Use of Exposure in the Treatment of Anxiety Disorders in Youth: A Survey Among Mental Health Practitioners**

**Rachel de Jong, Miriam J. J. Lommen, Wiljo J. P. J. van Hout, Peter J. de Jong & Maaïke H. Nauta, University of Groningen, the Netherlands**

Although there is consensus that exposure is the key ingredient in treating childhood anxiety disorders, several studies suggest exposure to be underused in clinical practice. Two recently conducted surveys among youth anxiety therapists in America show that exposure is only used in 5-15% of the cases (Higa-McMillan, Kotte, Jackson, & Daleiden, 2017; Whiteside, Deacon, Benito, & Steward, 2016). Therapists' beliefs about exposure, their age, experience, caseload, training and theoretical orientation, as well as the level of the therapists' own anxiety have been suggested to play an important role in the underusage of exposure in the treatment of adults with anxiety disorders. An internet-based survey among 207 youth mental health care professionals in the Netherlands and Flanders was conducted to assess the (under)use of exposure in Europe, and whether the same barriers holds these youth mental health care professionals from using exposure. Results showed that exposure was the intervention of choice in about 50% of the cases, in contrast to recommendations from (inter)national guidelines, advising exposure as first line treatment for childhood anxiety disorders (f.e., National Institute for Health and Care Excellence (NICE), 2014). Exposure seems to be a technique that is easily left out, given the strong association between exposure use and the belief that, compared to other techniques, exposure places children at a greater risk of harm. These beliefs about exposure seem to interact with education about and training in exposure-based CBT when affecting its use in clinical practice. Results of this survey will be reported and discussed in more depth, as well as implications for supervision and training of (future) therapists working with anxious youth.

### **Feedback and Mindfulness: New Elements to Add to Cognitive Behavioral Therapy for Treating Childhood Anxiety Disorders?**

**Bonny van Steensel, Liesbeth Telman, Marija Maric & Susan Bögels, University of Amsterdam, the Netherlands**

Anxiety disorders are one of the most common psychiatric disorders in children. Fortunately, Cognitive Behavioral Therapy (CBT) is highly effective for treating anxiety in youth. However, treatment effectiveness may be higher in research-based controlled studies (i.e., efficacy studies) compared to real-life clinical practice where no exclusion criteria are set, comorbidity is more the rule than exception, and individual variation is large. In addition, therapists in real-life clinical settings work under time pressure, and protocol adherence, training and supervision is likely to be less. In the current study, we examined the applicability and effectiveness of a modular CBT in real life clinical practice. Participants were 116 children (56 boys; 48.3%) aged 7-17 years (mean age = 11.14, SD = 2.52), and their parents. Around half of the children were free from their primary anxiety disorder, and effect sizes based on questionnaires were large ( $d > .80$ ). In this presentation, two aspects of the study are further examined and discussed. (1) Children reported weekly about their satisfaction with the treatment session (SRS), how they were doing (ORS), and about their anxious thoughts, feelings and (avoidance) behavior. Children were randomized to (a) feedback condition, or (b) no-feedback condition. When randomized to the feedback condition, their therapists received their weekly reports (and were instructed to discuss these with the child). It was hypothesized that treatment in the feedback condition would be more effective and/or efficient than in the no-feedback condition. (2) With respect to the modular treatment, therapists (together with the family) decided which CBT module was used, and we added mindfulness as an optional module to CBT. It is examined how often mindfulness was used, and whether the higher use of this module is associated with treatment effectiveness. As this second aspect was exploratory, no hypotheses were made on forehand. Results will be presented and discussed.

## **Exposure-Based Treatments for Youth Psychopathology: Enhancing Outcomes and Broadening Reach Through Basic and Applied Clinical Research**

**Convenor: Allison Waters, Griffith University, Australia**

**Chair: Allison Waters, Griffith University, Australia**

**Discussant: Michelle Craske, University of California, USA**

### **Optimising Exposure for Children and Adolescent Anxiety: A Systematic Review and Empirical Study Examining Affect Labelling for Public Speaking Anxiety**

**Polly Waite, University of Reading, United Kingdom**

**Cathy Creswell, University of Oxford, United Kingdom**

The critical ingredient in CBT for the treatment of anxiety disorders is believed to be behavioural exposure. Though exposure-based treatments are effective for treating anxiety disorders, approximately 40-50% of young people do not benefit. Research with adults has identified a number of strategies to optimise learning during exposure. However, the effects of the majority of these strategies have not been considered from a developmental perspective and such, it is not clear which strategies are associated with the most positive treatment outcomes for child and adolescent anxiety disorders. Firstly, we will present a systematic review that we conducted to identify factors associated with differential outcomes from exposure in children and young people (aged 5-18 years) with anxiety and related disorders. This included specific exposure optimisation strategies (e.g. pharmacotherapy and parental involvement) through comparisons with control groups in experimental studies (e.g., randomised controlled trials), as well as specific characteristics of the process of exposure (e.g. cognitive, behavioural, and therapy level characteristics) through within-subject studies. Secondly, we will present the findings from a study that we recently conducted with 81 adolescents (aged 13-14) recruited from secondary schools, who were fearful of public speaking. Participants were asked to deliver a variety of speeches in front of a pre-recorded audience and randomised to one of 3 groups (affect labelling + negative predictions, positive coping statements or exposure alone). The study examined whether affect labelling + negative predictions before and during exposure was associated with a greater reduction in anxiety, distress, avoidance and use of safety behaviours compared to exposure alone and/or exposure with positive coping statements. This presentation will report the outcomes of this study and consider the clinical implications of these findings.

### **A Randomized Controlled Trial of D-Cycloserine Augmented Intensive Exposure Therapy for Paediatric Obsessive Compulsive Disorder Outcomes and Moderators of Response**

**Lara Farrell, Allison Waters, Evelin Tiralongo, Melanie Zimmer-Gembeck, Harry McConnell & Eric Storch, Griffith University, Australia**

**Jennifer Hudson, Macquarie University, Australia**

**Thomas Ollendick, Virginia Tech University, USA**

Obsessive-Compulsive Disorder (OCD) is a chronic neuro-behavioural disorder associated with significant negative impairments for children and adolescents. Unfortunately, only about 50-60% of children with OCD are diagnosis-free following our current best evidence-based treatments, highlighting the need for novel approaches to improve response and remission rates. Anti-tuberculosis drug d-Cycloserine (DCS) has been found to enhance extinction learning, and clinical studies have shown DCS augments outcomes of exposure therapy over and above exposure-therapy alone, although findings across studies to date have been largely mixed. In the largest meta-analysis to date ( $n=1,047$  patients), DCS augmented exposure therapy was found to produce superior clinical improvement from pre- to post-treatment, with participants assigned to DCS having lower symptom severity than those assigned to placebo at both posttreatment and at follow-up (Mataix-Cols et al., 2017). However, little is known about moderators of response, with evidence to suggest that positive DCS augmentation may be associated with specific dosing parameters (dose timing and frequency of dosing), as well as various clinical and patient characteristics (including quality of extinction learning, age, or antidepressant use). This study aimed to conduct a double-blind RCT of DCS-augmented intensive exposure and response prevention (ERP) for paediatric OCD, relative to a pill placebo condition to determine efficacy and explore potential moderators of response at post treatment and 6 months follow-up. It was hypothesised that DCS augmented ERP would result in significantly greater improvements in OCD severity, global functioning and OCD-related impairment relative to the PBO condition. Moderators of response were also examined, including child age and concurrent antidepressant use. The sample comprised  $n=100$  children and youth (7-17 years) with at least moderate severity OCD (CYBOCS) randomised to DCS ERP or PBO ERP. Exposure sessions consisted of three weekly, three hour long sessions, in addition to a one month two-hour booster session. Weight-adjusted DCS (35 mg or 70 mg) or PBO was dosed immediately before each of the four intensive ERP sessions. Gold standard measures were administered at each time point, including measures of OCD severity (CYBOCS, ADIS-P CSR), impairment (OC Impact Scale) and global functioning (CGAS). The primary efficacy analysis will assess average treatment group differences for the primary outcome measures over two primary end points (post-treatment, 6 month follow-up) and will use a likelihood based mixed-effects model, repeated measures approach (MMRM). Moderation analyses (age, antidepressant use) will be conducted within the MMRM by including additional predictors of treatment outcome and interaction effects (moderator  $\times$  time). Results will be discussed in the context of the broader DCS literature with implications of findings for future research and clinical practice highlighted.

Other co-authors: Daniel Geller, Brett McDermott, Mathew McKenzie, Sharna Mathieu, Cassie Lavell, Jacinda Cadman

### **Exposure-Based Cognitive Behavioral Therapy for Severe Irritability in Youth: Theory, Mechanisms, and Outcomes**

**Katharina Kircanski, Ramaris German, Daniel Pine, Ellen Leibenluft & Melissa Brotman, National Institute of Mental Health, USA**

Chronic, severe irritability is common and impairing in youth, yet little is known about its pathophysiology and treatment. This presentation will discuss an exposure-based cognitive-behavioral therapy (CBT) for irritability that our research group has developed, and will cover the theory, potential mechanisms, and outcomes (thus far) of the treatment. With respect to theory, we posit core mechanisms of irritability operating across the brain, behavior, and environment. We focus on neurocognitive processes: youth's encoding of nonreward and threat stimuli, which involves prediction error signaling in the brain, and cognitive control in the context of frustration. These proximal processes surround the symptomatology of irritability and serve as proposed targets for the CBT. The 12-week outpatient CBT uses controlled, in vivo exposure to cues that elicit frustration with the aim to engage fronto-striatal-amygdala neural circuitry involved in cognitive control and target top-down regulation of frustration. Selected parent management training techniques are integrated in the treatment to target symptom reinforcement processes. An open active pilot trial ( $N=10$  youth with disruptive mood dysregulation disorder [DMDD], characterized by severe irritability) was utilized to manualize therapy procedures and document preliminary feasibility and efficacy (Kircanski et al., 2018).

All youth and families attended all sessions. Results indicated significant improvement in irritability symptoms from pre- to post-treatment, as assessed by independent clinicians using the Clinical Global Impressions (CGI) Scales and Clinician Affective Reactivity Index (CL-ARI) (all  $p < .005$ ). Based on the feasibility of the open pilot trial, we are currently pursuing more rigorous treatment testing through a randomized, multiple baseline across subjects design ( $N=40$  youth with DMDD). This study includes functional neuroimaging assessments of youth at pre-, mid-, and post-treatment, measurement of in-session exposure processes, and ratings of treatment adherence, alliance, and satisfaction. Preliminary data to be presented include mediators of clinical efficacy. Continued pathophysiological and treatment studies of irritability will not only refine our emerging understanding of the phenotype, but also inform broader questions on the brain and behavioral mechanisms of CBT efficacy.

### **Enhancing Exposure-Based Treatments for Anxious Youth: Strengthening Attention Regulation During Fear Extinction Experiments and Exposure Therapy**

**Allison Waters, Griffith University, Australia**

Exposure therapy is a first line psychological treatment of childhood anxiety disorders, yet not all anxious children benefit in the short- or long-term, highlighting a need for improvement. The allocation of attention towards versus away from threat stimuli has been found to enhance extinction and exposure therapy outcomes for anxious children. Improving our understanding of the mechanisms by which attending to threat stimuli enhances outcomes could provide valuable insights into strategies that may improve attention regulation during fear extinction experiments and exposure therapy, and further improve outcomes. Therefore, the aim of this presentation is to present findings from several experimental and treatment studies that seek to elucidate these mechanisms and test novel attention regulation strategies. Findings will be presented that suggest that attending to threat stimuli enhances arousal during extinction, prevents arousal generalisation to other stimuli, and improves extinction retention relative to attention avoidance and/or attention control conditions. Studies examining strategies to encourage attention towards threat stimuli will also be reviewed. Findings suggest that verbalisation strategies, instructed attention, and multiple threat exemplars enhance reactivity during, and improve outcomes following, extinction experiments and exposure-based treatments for anxious children. These findings are discussed in terms of an integrated model of attention regulation during extinction and directions for further research.

### **Symposia 9: Cross-Cultural Issues**

#### **Examining Cultural Influences in the Treatment of Anxiety Disorders: Encounters Between East and West**

**Convenor: Honami Arai, Doshisha University, Japan**

**Chair: Shin-ichi Ishikawa, Doshisha University, Japan**

#### **False Safety Behavior Elimination Treatment: Cultural Adaptations**

**Norman B. Schmidt, Florida State University, USA**

False Safety Behavior Elimination Treatment (FSET) is a mechanistic treatment approach focused on targeting and eliminating so-called safety behaviors. Safety behaviors include a wide array of coping responses to “false” threats that are inherent to all forms of anxiety psychopathology. FSET was designed to be transdiagnostic and also to be relatively simple and straightforward. As such, it was hoped that the treatment could be readily taught to inexperienced therapists and readily learned by patients. Early randomized clinical trials suggest that FSET is efficacious when delivered in a group as well as an individual format. More recently, FSET has been adapted by collaborators in a variety of countries. This talk will discuss the general rationale behind the development of FSET as well as the cultural adaptation of FSET to South Africa as well as the transportability of the treatment to low income individuals in remote locations. We will also discuss the adaptation of FSET to a young adult population in Australia.

#### **The Adaptation of the False Safety Behavior Elimination Treatment to Clinical Settings in Japan**

**Honami Arai, Doshisha University, Japan**

Mental health disorders among college students has been recognized as prevalent problems in Japan, especially, social anxiety disorders are frequently found in adolescents. However, evidence-based treatments for college students with social anxiety is scarce in Japan as well as Asian countries. The Safety Behavior Elimination Intervention (SAFE intervention; Korte & Schmidt, 2015) which had been developed from the False Safety Behavior Elimination Treatment (FSET; Schmidt et al., 2012) is a preventive intervention for social anxiety. The FSET and the SAFE intervention have shown its efficacy in Western countries. Therefore, transportability to Asian countries is a current task in terms of dissemination and cultural adaptation of cognitive behaviour therapy to underrepresented culture.

This study examined the efficacy of a grouped SAFE intervention for subclinical social anxiety in Japanese students. Seventy six college students who had sub-clinical social anxiety symptoms participated in the study. The participants were randomly allocated into either the SAFE intervention or health education (attention placebo control) condition. The SAFE intervention consisted of psychoeducation about social anxiety and anxiety control, coping with safety behaviour, and in vivo exposure. The both interventions were provided as a one-session intervention for 120 minutes. Participants in the both conditions completed the Social Interaction Anxiety Scale (SIAS) for social anxiety, the Beck Depression Inventory-II (BDI-II) for depression, Sheehan Disability Scale (SDS) for disability, Anxiety Control Questionnaire (ACQ scale) for anxiety control and Subtle Avoidance Frequency Examination (SAFE scale) for safety behaviors at pre-intervention, post-intervention, and one month follow-up.

For data analysis, 59 students (male = 22, female = 37,  $M = 19.79$  years old,  $SD = 0.91$ ) were included. As primary outcome, a significant interaction was found for the SIAS,  $F(1, 57) = 5.84, p < .01, \eta^2 = .10$ . Post-hoc analysis showed the SAFE condition showed significantly lower scores than the health education at post-intervention and follow-up,  $ps < .001$ . Similarly, a significant interaction was found for the BDI but not for the SDS,  $F(1, 57) = 3.05, p < .01, \eta^2 = .06$ . The SAFE intervention showed lower depression at one month after the intervention. Finally, mediation analyses based on the ACQ scale and the SAFE scale supported relationship between anxiety control and social anxiety mediating safety behaviors. Therefore, this study supported transportability of the SAFE intervention to Japan. Based on the results, we will discuss clinical implication of the study and future task for cultural adaptation.

### **Anxiety, Emotional Intolerance, and Treatment-Seeking Decisions: A Behavioral Economic Perspective**

**Kiara R. Timpano, Caitlin A. Stamatis, Elizabeth Casline, Zabin S. Patel & Amanda Jensen-Doss, Miami University, USA**

Anxiety disorders impact up to 25 percent of individuals, representing a leading cause of disability worldwide. By better understanding barriers to seeking treatment for anxiety disorders, we may begin to reduce the global cost they incur. Most studies on treatment seeking have focused on demographic factors, attitudes, and clinical symptoms as barriers, whereas few have considered the influence of cognitive risk factors such as anxiety sensitivity (AS). AS is linked with greater symptom severity, poorer treatment outcomes, and increased behavioral avoidance, the latter of which stands to impede treatment seeking behavior. Moreover, while prior studies have focused on treatment cost as a barrier, few have accounted for individual differences in risk aversion as a predictor of willingness to seek services, and most have relied on self-reported risk behavior rather than behavioral economic paradigms. In the present study, we employed a novel behavioral economic task to test the influence of AS, risk aversion, and loss aversion on treatment-seeking attitudes.

A dimensional sample of 69 individuals (71.6% female; M age=37.5 years) completed a battery of questionnaires, including the Anxiety Sensitivity Index-3. Two individual items were used to assess dimensions of treatment-seeking attitudes, with one measuring willingness to seek psychological treatment, and one measuring perceived benefit of treatment. Participants also completed a decision-making task, wherein each trial presented a choice between a certain outcome or a gamble for potential losses or gains. By applying Prospect Theory models to the task data, we obtained separate measures of risk aversion, loss aversion, and choice consistency.

Results from regression models revealed no main effects of AS or risk aversion on treatment-seeking outcomes. Though unrelated to willingness to seek treatment, greater loss aversion was associated with viewing treatment as more beneficial ( $B=.26, p=.049$ ). Conversely, interaction models revealed that for individuals high in AS, greater loss aversion predicted a significantly reduced likelihood of seeking treatment ( $B=-.37, p=.032$ ), as well as lower perceived benefit of treatment services ( $B=-.36, p=.036$ ). Taken together, results suggest that a myopic focus on avoiding potential losses may hinder treatment-seeking among individuals high in AS, a group highly in need of psychological services. Findings also highlight the potential for integrative models of cognitive risk factors using behavioral experiments to better characterize and predict treatment attitudes, an early step in reducing anxiety treatment barriers.

### **Positive and Negative Self-Views in Social Anxiety Disorder: Does the Impact of Cognitive Behavior Therapy Differ Between East and West?**

**Jung-Hye Kwon & Jung-Kwang Ahn, Korea University, South Korea**

The role of negative self-construct including self-views, self-presentations, and self-images has been emphasized in cognitive-behavioral models of social anxiety disorder (SAD) and changes in negative self-views has been consistently demonstrated during cognitive behavioral therapy (CBT). However, changes in positive self-views during CBT have not been investigated as much as those in negative self-views. According to Ahn, Lee, & Kwon (2018) which investigated the changes and relationship of social anxiety symptoms, positive and negative self-views during group CBT for SAD, social anxiety symptoms and the negative self-views were significantly reduced and the positive self-views significantly increased during the treatment. It was also demonstrated that the negative self-views were significantly correlated with the reduction of social anxiety symptoms, but the positive self-views were not. This finding is in contrast with that of Goldin, Jazaieri, Ziv, Kraemer, Heimberg & Gross (2013) which showed that changes in positive self-views mediated the therapeutic changes during CBT for SAD. This presentation will address the questions: (a) whether there are cultural differences in the relationships between negative and positive self-views and therapeutic changes, and (b) what factors may contribute to the cultural differences. A brief review will be presented on the previous studies performed in our lab addressing the relationship between positive self-views and SAD, and changes in positive self-views during CBT. Next, results of a preliminary study investigating the relationship among the self-construal, the negative and positive self-views, the fear of negative evaluation and positive evaluation will be reported.

### **Cognitive Behavioral Therapy in Global Mental Health: Adaptation, Evaluation and Dissemination Plan for Implementing the Unified Protocol for Victims of Armed Conflict in Colombia**

**Convenor: Leonidas Castro-Camacho, Universidad de los Andes, Colombia**

**Chair: Leonidas Castro-Camacho, Universidad de los Andes, Colombia**

#### **Adaptation of the Unified Protocol to the Contextual, Cultural and Living Conditions of Internally Displaced Victims of Armed Conflict in Colombia**

**Julián Moreno, Michel Rattner, Diana M. Quant, Laura González, Julian David Moreno & Leonidas Castro-Camacho, Universidad de los Andes, Colombia**

Dissemination to different cultural and international populations is one logical step after establishing efficacy of CBT interventions (Spilka & Dobson, 2015). Nevertheless, adapting the original version to the contextual and cultural characteristics of the target population, balancing the core elements, it is the main challenge (Bernal & Rodriguez, 2012). Therefore, a generic case formulation is an option to overcome this problem in the target population.

Victims of armed-conflict in Colombia present different characteristics as: (1) Exposure to multiple extreme and prolonged violent events like combat attacks, witnessing massacres, torture, sexual violence and forced disappearance, which have led to a diversity of emotional and mood disorders, (2) hardship living conditions after the exposure, and (3) diverse cultural beliefs, customs and ethnic backgrounds.

To address the specific characteristics of the population, the following phases were implemented. First, information was gathered about (1) specific population characteristics, (2) population needs and context, (3) a generic formulation on possible maintaining factors was developed and (4) on the basis of the formulation, evidence-based interventions for identified problems and needs were reviewed. Second, the UP was selected as the most suitable intervention for population's needs and context. Third, UP's core elements and mismatches, and specific examples and terminology were identified. Fourth, the UP manuals were translated and rewritten. Rationale, terminology and examples were modified, simplified or replaced by graphic material to fit the educational level, previous experience and cultural characteristics of participants. The adapted material was evaluated by an expert panel, composed by psychologists with experience of psychosocial interventions for victims, three community leaders and two victims of armed conflict. The fidelity of the adapted manual was evaluated by a member of the original group that developed the UP. Fifth, after recommendations from the expert panel, the adapted protocol was tested in a pilot with 3 participants, whose evaluation led to final adjustments. Sixth, the final version was evaluated through an RCT in which questions of terminology and examples were evaluated in all participants. Implications of contextual adaptations using generic formulations for global mental health are discussed.



## **A Randomized Controlled Trial Evaluating the Effects of the Contextual Adaptation of the Unified Protocol in Victims of Armed Conflict in Colombia: Procedure and Primary Outcomes**

**Leonidas Castro-Camacho, Universidad de los Andes, Colombia**

**David H. Barlow & Fabio Idrobo, Boston University, USA**

Over 60 years of armed conflict in Colombia has left more than 8 million victims, many of whom present a diversity of emotional disorders and reactions that interfere with their quality of life and their capacity to face daily stressors. The efficacy of the contextual adaptation of the UP addressing common processes to different emotional reactions was evaluated through a randomized control trial with a sample of 100 internally-displaced individuals living in Bogotá.

Inclusion criteria were: being 18 years or older, having been exposed to violent events within the context of armed conflict, presenting emotional problems. Individuals with psychotic disorders, antisocial personality disorder and addictions, as well as those whose basic living needs, like food and shelter, were not met were excluded. The following primary outcome measures were administered by blind assessors at Baseline (BL), at the end of treatment (TR) or wait-list (WL) conditions and at three month follow-up(FU): Patient Health Questionnaire (PHQ), Clinical Global Impression Severity and Improvement Scales CGI-S, Overall Anxiety Severity and Impairment Scale (OASIS), Overall Depression Severity and Impairment Scale (ODSIS), PTSD Checklist for DSM-5 (PCL-5) and Quality of Life and Enjoyment and Satisfaction Questionnaire (Q-LES-Q). Repeated measures administered each session were ODSIS, OASIS and a self-report measure of frequency and intensity of specific emotional reactions.

Participants were randomly assigned to treatment condition (N=50) or to waiting-list (delayed-treatment) control (N=50). Treatment was delivered through 12-14 individual sessions by 10 graduate students in Clinical and Health Psychology and master's level clinical psychologists trained by one of the developers of the original UP and by the director of the study.

For the intervention (IG) there were significant decreases between the baseline and end of treatment, for the ODSIS, OASIS, & PCL-5 measures ( $F$ 's < .002, Hedges  $g$ 's > 2.36). The analysis of the Q-LES-Q scores showed a significant increase for both groups following the intervention ( $F$  < .001, Hedges  $g$  = 1.8). Whilst 76% of participants fulfilled clinical criteria for one or more diagnoses at baseline in PHQ, none of the participants had clinical levels of any diagnosis post-treatment. As expected, significant differences were seen between the end of treatment scores of the IG and the baseline scores of the WG.

## **Predictors of Dropout in an Randomized Controlled Trial for Victims of Armed Conflict in Colombia**

**Nicolás García, Iona Naismith, Fabio Idrobo & Leonidas Castro-Camacho, Universidad de los Andes, Colombia**

The efficacy of CBT for emotional disorders is well established (Bradley, et al. 2005; Hofmann et al., 2012). However, high drop-out rates and lack of compliance interfere with the efficacy of interventions (Fernandez et al., 2015). Moreover, attrition in randomized clinical trials represents a threat for interpretations of findings (Habby et al., 2006). Cultural and contextual insensitivity of treatment may be a factor that increases difficulties to access treatment (Sangi-Hagheykar, et al., 2009). Identification of factors associated with dropout may provide useful information for design of clinical trials, data interpretation, and treatment planning in diverse cultural settings.

The objective of this study is to identify variables associated with dropout in an RCT evaluating the efficacy of the Unified Protocol (UP) implemented with victims of armed conflict in Colombia. This population might present a high risk for dropout due to three main reasons. First, exposure to repeated trauma and higher comorbidity may cause higher intensity of symptomatology leading to higher rates of attrition (Garcia, Kelley, Rentz, & Lee, 2011). Secondly, many victims are internally displaced people (IDPs), constantly resettling in different places, difficulting consistent treatment attendance. Thirdly, living conditions lead to difficulties for transportation, inflexible working hours due to unstable employment, and childcare responsibilities without a supportive social network. This presentation describes whether treatment dropout is predicted by demographic variables (including sex, age, educational level, family structure and income), clinical variables such as diagnosis, comorbidity, and symptom severity.

Preliminary data analysis was conducted on data from 97 participants. Dropout from treatment was defined as not attending three sessions consecutively or stating a decision to discontinue. Attrition before starting treatment (post-screening) was 20% (n=19) and during treatment was 30% (n=29). Dropout data was analyzed with a survival analysis, an AFT (Accelerated Failure Time) model was used to identify predictors of attrition. These preliminary analyses revealed that the only significant predictor of dropout was having children (AFT:  $\beta$  = -1.43,  $p$  = .03), and this predictor had no interaction with gender or living with a partner. Demographic variables such as age, sex, marital status, education level, employment, housing, poverty or being under current threat did not predict attrition. Also, clinical variables including number of diagnosis, baseline ODSIS, OASIS, and PCL-5 scores, did not predict dropout. This analysis suggest that childcare could be a central variable to facilitate access and permanence in treatment for the victim population, subsidizing or providing these services with treatment could facilitate the improvement of mental health in the post conflict era.

## **Scaling Up Psychotherapy Interventions in Low and Middle-Income Countries: What We Know and What We Need to Find Out**

**Iona Naismith & Leonidas Castro Camacho, Universidad de los Andes, Colombia**

In low and middle-income countries (LMICs), up to 93% of people with emotional disorders are estimated to have no access to effective interventions (Chisholm et al. 2016). Increasing access to evidence-based therapies for emotional disorders offers an opportunity to significantly improve quality of life and functioning, as well as offering economic benefits via increased work participation and productivity. Unfortunately, most psychotherapeutic interventions evaluated in LMICs cease to be implemented after the original trial is completed.

This talk reviews the available evidence regarding effectiveness, challenges and solutions to scaling up psychotherapies in LMICs. In particular, researchers have recognized a need for non-specialized providers (NSPs) to support dissemination of interventions; however, this poses additional challenges including training and supervision demands. Perhaps for this reason, to date only eight randomized control trials have evaluated multisession cognitive behavioural therapy (CBT)-based interventions delivered by NSPs. As this presentation will outline, these studies differ widely in terms of the intervention nature, provider experience, training and supervision intensity, and participant characteristics (e.g. primary care patients vs. complex trauma survivors).

Drawing from previous findings, we outline a plan to scale up a transdiagnostic CBT intervention (the Unified Protocol) using NSPs, involving an online learning platform to increase access to training in remote areas. We consider how to train and supervise NSPs in both specific and non-specific therapy skills to ensure that such interventions are ethical and effective.

Chisholm, D., Sweeny, K., Sheehan, P., Rasmussen, B., Smit, F., et al. (2016). Scaling-up treatment of depression and anxiety: a global return on investment analysis. *Lancet Psychiatry*, 3: 415–24.

## **Cross-Cultural Issues in Applying Cognitive Behavioral Therapy in Asian Countries I**

**Convenor: Younghee Choi, Metta Institute and Inje University, South Korea**

### **Implementing Cognitive Behavior Therapy in Japanese Clinical Practice: Bridging the Gap Between Research and Practice**

**Atsuo Nakagawa, Keio University, Japan**

Cognitive behavior therapy was introduced into the field of psychiatry in the late 1980s in Japan, and the Japanese Association for Cognitive Therapy (JACT), founded in 2004, now has more than 1900 members. Along with such progress, awareness of cognitive behavioral therapy has spread, not only among clinicians and academics but also to the public. Researchers have conducted a series of clinical trials of cognitive behavior therapy since 2006 and shown its efficacy among Japanese patients. As a result, in April 2010 cognitive behavior therapy for major depression was added to the national health insurance scheme in Japan. However, we face several challenges that need to be addressed to implement cognitive behavioral therapy in routine clinical practice.

In this presentation, the current status of cognitive behavior therapy practice and research in Japan will be introduced, and the challenge is bridging the gap between research and practice will be discussed.

### **Introduction of Cognitive Behavior Therapy in China**

**Ning Thang, The Affiliated Brain Hospital of Nanjing Medical University, China**

Introduction of CBT's starting, training and organizational development in China. At present, four academic organizations in China have set up CBT branch committees, and about 500 people are engaged in CBT related work. We also developed CCBT, to improve the accessibility of CBT, tried to use virtual reality for CBT therapy, and studied the mechanism of CBT by brain imaging, and tried to study the adaptability of CBT in the context of Chinese culture.

### **Cross-Cultural Features in Applying Cognitive Behavior Therapy in Korea**

**Younghee Choi, Metta Institute and Inje University, South Korea**

This presentation illustrates cultural and/or cross-cultural characteristics in applying CBT to Korean clients under the following nine categories; 1) shamanistic healing, 2) drop out in the initial stage of therapy, 3) being afraid of negative judgment from therapist and therapeutic failure, 4) fear of stigma – medical term, 5) religious faith, 6) personal history about trauma or sexual issues, 7) when parents are the source of their children, 8) hwa-byung as a psychosomatic problem, and 9) need for one shot therapy. The ideas presented in this article need to be taken only as a framework to begin working with this client group. The tremendous variety among Koreans requires great care in avoiding overgeneralizations regarding clients and the appropriate treatment methods. Nevertheless, with that caveat, the above solutions will be useful to cross-cultural therapists who work with Koreans.

### **Cognitive Behavior Therapy in Singapore**

**Catherine So-kum Tang, National University of Singapore, Singapore**

The city state of Singapore is a highly urbanized island country situated between Malaysia and Indonesia in South East Asia. Singapore is a multi-ethnic and multi-religious society of about 6 million people, with ethnic Chinese (76% of the citizen population), Malays (15%), and ethnic Indians (7.4%) making up the majority of the population. Mental health needs in Singapore exist as in other developed countries. The main disorders are depression, anxiety disorders, and schizophrenia. There is a need for both formal and informal mental health services, especially for adolescents and elderly people.

This presentation will focus on the practice of cognitive behavioral therapy (CBT) with Chinese Singaporeans. The co-existence of Western and traditional therapies in Singapore will first be discussed. Chinese and Singapore cultural factors that may influence mental health attitudes and acceptance of psychological services and CBT will be presented. The potential strengths and weaknesses of applying CBT in the treatment of Chinese Singaporeans will be highlighted. Empirical studies that documented the efficacy of applying CBT with Singaporean clients will be reviewed. Modification of CBT aiming at enhancing its effectiveness for Chinese Singaporeans within their cultural context will also be discussed. Finally, it is recommended that a professional organization is to be established in Singapore to ensure ethical delivery of CBT and to review its status and practicality.

## **Cross-Cultural Issues in Applying Cognitive Behavioral Therapy in Asian Countries II**

**Convenor: Younghee Choi, Metta Institute and Inje University, South Korea**

### **Cognitive Behaviour Therapy in Malaysia: Current Trends (2015-2019) and Future Pathways**

**Firdaus Mukhtar, Universiti Putra Malaysia, Malaysia**

**Alvin Lai Oon Ng, Sunway University, Malaysia**

Cognitive-behaviour therapy (CBT) has been consistently growth in Malaysia despite all the challenges discussed in 2015. To embark beyond mental health field, we consider as an achievement for CBT to remain most stable psychotherapy. Current focus of government to enhance mental health issues at all level, lead to more opportunities for CBT to sustain. The main issues with regards to the use of CBT in Malaysia concerns training and indigenous research. While there has been some research gaining ground in the past five years, the third wave psychotherapy (eg ACT, DBT) also growing slowly in training, research and clinical service. This paper provides a brief historical journey of CBT in Malaysia based largely on published research as well as commentaries of the evolution of mental health professions, and then discusses its current development leading to future directions. Supporting points will be provided based on related studies into professional development, mental health needs and literacy, as well as psychometric evaluations and validations. The main analysis put forward is that CBT development is currently supported by an increased interest and resource in its training but limited by the relative young fields within mental health, poor mental health literacy and the dominance of psychopharmacology in the treatment of mental illness in Malaysia.

### **Current Status of Cognitive Behavior Therapy Practice, Training and Research in Bangladesh**

**MD Shahanur Hossain, Marzia Al Hakim, Abdul Awal & Ummey Saima Siddika, University of Dhaka, Bangladesh**

Cognitive Behavior Therapy (CBT) in Bangladesh has been started since 1996 -- after starting the professional clinical psychology course at Dhaka University in collaboration with the University College London, UK. Clinical psychology in Bangladesh is a three years' training program (one year MS and two years' MPhil) where students are learning CBT along with other therapies for adult, child and geriatric

mental health problems. So far there are 65 qualified clinical psychologists in Bangladesh, working at home and abroad. Besides these, few psychiatrists, 250 assistant clinical psychologists (having MS in clinical psychology), a number of psychotherapists (with a training of 6 months), counseling psychologists (with one year MS in counseling psychology) and counselors (having 1 to 12 months' training) are offering psychotherapeutic services -- to promote mental health of 160 million people of Bangladesh, where 16.1% is suffering from various mental illness. Basic training for those clinicians are designed based on CBT structure. In case of research, clinical psychologists in Bangladesh have been conducting research on CBT to see different correlates and effectiveness of CBT for different disorder. Dhaka University and Bangladesh Clinical Psychology Society hosted the 6th Asian CBT conference (9-12th February, 2018) and 600 researchers and practitioners from home and abroad participated.

This paper will be prepared by using survey, key informant interview and secondary sources of data, to find the real situation of CBT regarding training, practice and research in Bangladesh. The paper will also attempt to answer the questions like – how successfully CBT has been implanted in the cultural context of Bangladesh, and in case of difficulty, what forms of indigenization is required -- to construct or reconstruct CBT for Bangladesh, as a popular choice among the clinicians and clients.

### **Adapting Cognitive Behavior Therapy Within a Multidimensional Indian Context: Issues & Challenges in Practice, Research and Training**

**Nimisha Kumar, Shree Guru Gobind Singh Tricentenary University Gurugram, India**

India's booming economy and a transitional social context have drastically changed attitudes, lifestyles and family structures as urban Indians prioritize higher / dual incomes, consumerism and career opportunities over traditional family duties and gender-specific roles. The rapid transition towards increasingly westernized lifestyles along with the breakdown of social support systems and tremendous rise in the use of digital and social media has created significant psycho-social disturbances and mental health issues in rural and urban areas. Since there is an immense diversity among the clients that seek psychological help even in the urban areas, psychotherapists need to constantly improvise and individualize therapy for every client, while attempting to follow the basic therapy protocol. In India there is present a diversity in every sense of the word - ethnic, age-related, religious and spiritual orientation, social situation (type of family), socio-economic background, availability of treatment choices, and experience with psychotherapy, attitudes and medical mindset as well as varying levels of psychological sophistication. In this context, psychotherapy may times becomes more of a creative exercise rather than a scientific one.

CBT is a common approach to mental health intervention in India but it is used more as a set of techniques rather than as a systematized form of psychotherapy as in the West. Most Indian psychotherapists follow an eclectic approach wherein they are directed by their basic theoretical orientation, patchy training in psychotherapy as well as their exposure to particular client groups. The lack of systematized training, supervision and thin research mindedness creates a challenging situation for CBT as an evidence-based treatment. This paper will discuss these issues and challenges and present suggestions for the adaptation of CBT for a multidimensional Indian context.

### **Cross-Cultural Issues in Applying Cognitive Behavior Therapy in Pakistan**

**Muhammad Irfan, Riphah International University, Pakistan**

It has been suggested that CBT is underpinned by specific cultural values and for it to be effective for clients from diverse backgrounds it should be culturally adapted. We have conducted more than ten RCTs and many qualitative studies to culturally adapt CBT in Pakistan. This work revealed that in order to apply culturally sensitive CBT in Pakistan a number of issues need consideration. These include, but are not limited to; understanding of cultural, religious and spiritual issues (e.g., illness belief model and cause and effect of the events), capacity of the system (e.g., number of trained therapists, financial resources, pathways to care) and the individuals (e.g., educational level of the person) and differences in cognitions and beliefs (there is evidence to believe there are wide variations in dysfunctional beliefs, similarly it is important to understand their beliefs about illness and the healers). Being aware of these issues can help with a culturally sensitive assessment (e.g., consideration of somatic complaints, misinterpretation of symptoms based on religion or cultural values) and adjustments in therapy (clients are more comfortable with behavioural techniques and problem solving, while they are less comfortable with Socratic dialogue and often find it difficult to separate thoughts from emotions). Literal translations do not work and therefore even the terminology needs to be culturally adapted.

### **International Politics: A Cognitive Therapy Perspective**

**Convenor: Mauro Galluccio, European Association for Negation and Mediation, Belgium**

**Chair: Mauro Galluccio, European Association for Negation and Mediation, Belgium**

**Discussant: Robert L. Leahy, American Institute for Cognitive Therapy, USA**

### **Populism: A Cognitive Therapy Perspective**

**Robert L. Leahy, American Institute for Cognitive Therapy, USA**

Populist movements on the left and right have gained popularity worldwide and have caused concern for many. What are the psychological processes underlying these movements? In this presentation I argue that ten processes may help account for their appeal to so many people. These include Humiliation, Feeling Unheard, Marginalization, Perceived Threat, Intolerance of Uncertainty, Lack of Control, Threats to Identity, Connection to Community, Confirmation Bias, and Cognitive Biases (Dichotomous Thinking, Labeling, Discounting Positives, Fortune Telling, Emotional Reasoning). Charismatic Populist Leaders draw on these processes to delegitimize established powers and advocate plans that address these needs.

### **The Lebanese Interpersonal Conflict: A Cognitive Therapy Perspective**

**Aimee Karam, St. George Hospital University Medical Center, Lebanon**

This presentation aims at highlighting the major components responsible for maintaining the Lebanese interpersonal conflict, specifically, sectarianism, power distribution and legacy, fundamental meanings and beliefs related to citizenship, freedom of speech, origins, external alliances, dialogue and vision.

We will observe these components through their cognitive, emotional and behavioral underlying schemas. We will reflect on the challenging objective to reach a balance between acceptance and change, rigidity and flexibility in order to shift to a problem solving strategy rather than a regressive process responsible for maintaining the deadlock.

### **The Dark Leadership: A Cognitive Therapy Perspective**

**Mauro Galluccio, European Association for Negation and Mediation, Belgium**

This presentation underlines the importance of understanding selective moral disengagement and dysfunctional cognitive and emotional process in leaders from a cognitive therapy viewpoint. The selective moral disengagement is a social mechanism described by Albert Bandura and it is the result of different psychological mechanisms (influenced by personal relationships, media and communication processes in general), which “push” a person to act, tolerate, or back morally censurable behaviours, temporarily deactivating, in a selective way, some of the cognitive-emotional functions of the self-regulatory moral system (which is active in each person). We propose a social-cognitive viewpoint for the leadership to investigate how feelings of self-confidence, self-efficacy, and resilience or not may influence perceptions and how they may be improved by an efficient meta-cognitive mastery function, the resources or mental abilities that we activate to face complex situations.

### **The Role of Spirituality and Collectivism on Development of Core Beliefs in Indian Culture - Implications for Cognitive Behavioral Therapy Practice and Research**

**Convenor: Nimisha Kumar, Shree Guru Gobind Singh Tricentenary University Gurugram, India**

**Chair: Ritu Sharma, Pandit Deendayal Petroleum University, India**

**Discussant: Nimisha Kumar, Shree Guru Gobind Singh Tricentenary University, India**

### **A Spiritually and Contextually enhanced Cognitive Behavioral Therapy Model for Use in the Indian Setting**

**Nimisha Kumar, Shree Guru Gobind Singh Tricentenary University Gurugram, India**

India is now considered amongst the fastest growing economies in the world. It is in a state of transition between massively transformed and ‘modern’ lifestyles on one hand and the influence of traditional values, customs and mind-set on the other. In view of the current realities of urbanization-modernization, cross-national migration, increased violent conflict, un-rest and displacement, as well as rapid societal transformation, the biggest challenges that have been posed to mental health treatment approaches concerns with cross-cultural relevance, adaptability and applicability to multi-ethnic and increasingly complex communities. In the last few decades, the demand and ‘space’ for ‘evidence-based’ non-pharmacological approaches to mental health treatment has been created even amongst the collectivistic societies of the world, which have traditionally been dependent on strong family ties and social support networks for addressing their emotional needs and interpersonal conflicts.

However, Indian psychologists have had difficulties in balancing between a number of polarities: metaphysical versus empirical; clinical versus experimental; intuitive versus objective. The Indian mind, even when trained to be scientific, often finds it problematic to pursue the objective reality, getting caught in the mystical and meta-physical domain. Indian psychology is spiritual in its orientation. Spiritual does not mean otherworldly, nor does it imply being religious, rather it symbolizes faith in the existence of a higher power and the possibility of relating to it in order to seek the higher order truth of life.

This paper attempts to integrate certain central tenets in Indian Psychology into the Cognitive Behavioural Model, particularly how the whole idea of early experiences, core beliefs and world-views may be different in the Indian culture and their implications for case conceptualization and treatment. In addition, an attempt will also be made to extend the Beck’s Cognitive model into a bio-psycho-social-spiritual model more suited to the Indian context. Through the presentation of case vignettes and practice experiences, the author will illustrate how the current CB model can be adapted to the Indian setting and can be tailored to suit the diversity present in this culture. Implications for research will also be considered.

### **Cultural Adaptation of Cognitive Behavioral Therapy for Depression in Indian Setting**

**Mallika Sharma, National Health Service England, United Kingdom, and Maharshi Dayanand University, India**

**Nov Rattan Sharma, Maharshi Dayanand University, India**

Cognitive Behaviour Therapy (CBT) has been proven to be an effective treatment for depression and anxiety and is used as a recommended first line treatment for depression in Western countries such as the UK (UK’s National Institute of Health and Clinical Excellence, 2009). Several earlier studies have suggested that cultural adaptations are required to make CBT more effective when used as a treatment for non-Western settings, including Bhugra & Bhui (1998), Hays (2009), Kumar and Gupta (2012), Naeem et al (2015), Patel et al (2009). Although the earlier research has shed welcome light on the need for culturally adapted CBT, there has been comparatively little work on the efficacy of culturally adapted CBT, how CBT should be adapted for core cultural beliefs in the Indian setting, what specific issues need to be looked at when considering adaptations that may be required and how those adaptations should be made, both in and around the therapeutic treatment, in order to increase the effectiveness of the treatment. Additional research is clearly needed in this area to take into consideration the core cultural beliefs held by Indian participants. This has important treatment implications to ensure that CBT can become as effective a first line treatment programme for depression in India as it is in Western countries. Also, given the large migrant populations in Western countries from the Indian sub-continent, this study will be relevant to provide guidelines for therapists who are not from an Indian background in order that they can deliver culturally sensitive CBT with patients from an Indian heritage living in Western countries. The current study aims to look at the effectiveness of culturally adapted CBT. Adaptations were made around the therapy as well as during the therapy, taking into account the core cultural beliefs of the participants. The treatment was based on Beck’s model of depression. Cultural adaptations made around the therapy addressed issues relating to stigma, normalisation, psycho-education, availability, boundaries, emphasising the importance of written homework and problem solving. Adaptations during the therapy were made for the language used by the therapist, understanding of core beliefs specific to the type of population (rural vs urban), gender specific core beliefs, making use of religious references to enhance collaboration for Behavioural Activation. Social and family values were also considered while planning the course of treatment.

### **Mapping Core Beliefs and Personal Values at Workplace–Cognitive Behaviour Approach for Corporates in India**

**Ritu Sharma, Pandit Deendayal Petroleum University, India**

**Abstract**

Employee’s core belief and values are personal matter. Most of the time Indian workplace have a very diverse understanding of what constitutes integrity. Very often workplaces may not consciously articulate a shared understanding of ethical behavior, its tangible meaning in that particular work environment and its mannerism of practice. In above reference, Cognitive Behaviour approach can serve as one of the most effective Intervention in mentoring employees and conflict resolutions in matter associated with difference in approach due to personal

values and core beliefs. This study reports impact of cognitive behavior intervention which can positively impact employee well-being by reducing Cognitive dissonance. Present work also identifies the scope and relevance of Cognitive Interventions in corporates. The thematic focal point of this study was to understand the relevance of cognitive behavior approach at workplace to reduce the gap between the explicit and implicit code of conduct at workplace.

Keywords: Core Beliefs, Cognitive Behaviour Approach, Personal Values at Workplace, Employee Mentoring

### **Cognitive Behavioral Therapy to Modify Core Beliefs in Children and Adolescents in Clinical Population**

**Susmita Halder, Amity University, India**

Dysfunctional core beliefs may be associated with childhood mental health problems. Core beliefs defined as Core beliefs are the most entrenched and inner level of beliefs. The core beliefs of well-adjusted individuals allow them to interpret, appraise, and respond to life events in realistic and adaptive ways. When dysfunctional, core beliefs represent distortions of reality and tend to be global, rigid, and over generalized (e.g., "I am a burden to others.") (Beck, 1995). According to schema theory dysfunctional core beliefs develop during childhood and adolescence through negative experience by family members and significant others in surroundings, resulting in problem behaviour in children and adolescents.

Present study focuses on development of dysfunctional core beliefs in child and adolescents and its relation to mental health problem. Total 30 children & adolescents in age range of 8 to 14 years, with ADHD and behavioural problems and academic difficulties were included in this study. Symptoms severity, other associated problems and dysfunctional core belief were assessed. Dysfunctional core beliefs were first identified focusing on core of its development and its determinants. CBT, in particular schema therapy were applied on them to modify the maladaptive pattern of thoughts and core belief. Schema therapy focused on development of new schema by modifying the behavioural and emotional coping. Findings suggest improvement in manifestation of problems. The study further attempts to find out the mediating factors in development of dysfunctional core beliefs in children and how to modify them in the CBT process. Findings suggest core beliefs were significantly influenced by cultural factors and familial factors.

### **Anxiety Sensitivity as a Transdiagnostic Risk Factor: Its Nature, Moderators, and Mediators**

**Convenor: Ljiljana Mihić, University of Novi Sad, Serbia**

**Chair: Ljiljana Mihić, University of Novi Sad, Serbia**

**Discussant: Michelle Craske, University of California, USA**

### **Exploring the Hybrid Latent Structure Models of Anxiety Sensitivity in Serbian and Croatian Samples**

**Marija Volarov & Ljiljana Mihić, University of Novi Sad, Serbia**

**Nicholas P. Allan, Ohio University, USA**

**Nataša Jokić-Begić, University of Zagreb, Croatia**

Anxiety Sensitivity (AS) is a transdiagnostic risk factor defined as fear of anxiety sensations based on irrational beliefs that these sensations could have detrimental physical, cognitive, and social consequences. Initially, AS was regarded as a multidimensional construct but later taxometric studies suggested its categorical nature. Finally, a recent line of work using factor mixture modeling (FMM) provided support for its dimensional-categorical nature. However, current research evidence does not allow a clear conclusion whether two-class three-factor or three-class three-factor model best describes the AS latent structure. An aim of this work was to further explore the dimensional-categorical latent structure of AS in two non-English speaking countries and using two different measures of AS.

In Study 1, an adult community sample (N = 359, Mage = 25.28, SD = 7.64; 81.6% female) filled out a Serbian translation of the Anxiety Sensitivity Index-3. Models with one through four classes were tested fitting a three-factor structure of AS using FMM. The results suggested that the best fitting model was three-class three-factor model (Normative, Moderate, and Vulnerable AS classes) with covariances and intercepts freed to vary (-2LL = -7794; free parameters 101, AIC = 15790, BIC = 16182, aBIC = 15862, Entropy = 1.00, LMR-LRT = 350.17, BLRT = 352.87,  $p < .001$ ). Furthermore, ROC analyses yielded cut-off scores for differentiating Normative AS vs. other classes ( $\leq 19$ ), and Vulnerable AS vs. other classes ( $\geq 23$ ). In a second, treatment-seeking university sample (N = 369, Mage = 20, SD = 1.13; 76% female), the three classes were created using the aforementioned cut-off scores and compared on different symptom levels reported at a 6-month follow-up. The classes differed in the symptoms of depression, panic, agoraphobia, social phobia, and GAD, but not OCD.

In Study 2, an adult Croatian sample (N = 1709, Mage = 20.66, SD = 2.31; 68.8% female) filled out a Croatian version of the 16-item Anxiety Sensitivity Index. FMM results suggested that the three-class three-factor model with covariances and intercepts freed to vary was once again the best fitting one (-2LL = -36703; free parameters 89, AIC = 73584, BIC = 74068, aBIC = 73786, Entropy = .99, LMR-LRT = 1236.329,  $p < .001$ , BLRT = 1244.634,  $p < .001$ ). ROC analyses yielded cut-off scores of  $\leq 24$  and  $\geq 29$  for differentiating Normative AS vs. others and Vulnerable AS vs. others, respectively. As in Study 1, the three classes were formed in an independent Croatian sample from the general population (N = 1569, Mage = 34.59, SD = 13.47; 58.2% female). All classes differed significantly in their depression scores. This is the first cross-cultural replication of the three-class three-factor structure of AS, supporting the idea that AS has both latent class and dimensional properties. The fact that such results were obtained in non-English speaking countries, using independent measures of AS and independent samples, gives credence to the claim that AS is a latent variable hybrid. Theoretical and practical implications will be further discussed.

### **A Multi-Method Investigation of the Impact of Attentional Control on a Brief Intervention for Anxiety and Depression**

**Nicholas Allan, Ohio University, USA**

**Brian Albanese, Florida State University, USA**

**Matt Judah, Old Dominion University, USA**

**Brad Schmidt, Florida State University, USA**

Objective: Anxiety sensitivity (AS), or the fear of anxiety sensations, has been identified as a malleable risk factor for anxiety and depression. Brief computerized interventions, including elements of psychoeducation, interoceptive exposure, and cognitive bias modification (CBM) can reduce anxiety and depression through reductions in AS. This, and similar inter interventions, are not equally efficacious for all who receive it, suggesting the need to explore moderator effects. Attentional control (AC), or the ability to regulate attentional processes by focusing and shifting attention as needed, has been linked to AS, anxiety, and depression suggesting that it may moderate treatment efficacy. The moderating effects of neurophysiological (i.e., theta/beta ratio [TBR], occipital alpha power) and self-report indices associated with AC processes on a brief AS-focused intervention was examined. Method: The current study involved 127 participants

(M age = 36.43, SD = 16.47; 57.5% female) randomized to Cognitive Anxiety Sensitivity Treatment (n = 67) or a repeated contact control (RCC; n = 60). Results: Occipital alpha power moderated the rate of change in AS across three weekly treatment sessions as well as the effects of the intervention on anxiety and depression symptoms at the month 1 follow-up. Participants with reduced occipital alpha power, compared to those with enhanced alpha power, demonstrated a swifter reduction in AS symptoms and marginally lower levels of anxiety and depression at follow-up. Conclusions: These results indicate that reduced AC increases an individual's potential for treatment gains in the context of a brief transdiagnostic treatment for anxiety and depression.

### **The Moderating Role of Attentional Control on the Relations Between Anxiety Sensitivity and Daily Fluctuations in Anxiety**

**Nicholas Allan, Kevin Saulnier, Kateryna Kolnagorova, Ann Huet & Shahrzad Moradi, Ohio University, USA**

**Marija Volarov, University of Novi Sad, Serbia**

**Nicholas Allan, Ohio University, USA**

Elevated anxiety sensitivity (AS), the fear of anxiety symptoms, and attentional control (AC), the ability to focus and shift attention, are established risk factors for anxiety. In particular, AC has been identified as a moderator of the effects of AS on psychopathology, in that AS has a greater impact on psychopathology in individuals with poor AC. However, little is known about the combined influence of these variables on daily fluctuations in anxiety symptoms. Additionally, there is a dearth of studies examining the interactive effect of AC using psychophysiological measures of AC, such as theta-beta ratio (TBR). The current study examined the interactive effect of AS and AC (both self-report and TBR) on fluctuations in anxiety symptoms captured using ecological momentary assessment.

The study sample consisted of 90 community participants (M age = 29.14, SD = 12.21; 61% female; 77% White). Dynamic structural equation modeling (DSEM) was conducted in Mplus version 8.2 to examine the effects of AS, AC (self-report and TBR), and AS by AC interactions measured during a baseline lab session, on anxiety (anxious arousal and anxious apprehension), rated five times daily over two weeks. DSEM allowed us to examine the effects of the baseline variables on differences in overall anxiety, on the effects of the prior measurement occasions level of anxiety on the next occasion, and log-transformed between-person differences in anxiety variability. For anxious arousal, there was a significant lagged effect ( $B = .18$ , 95% Bayesian Credibility Interval [CI; .11, .26]). Further, there were significant differences in variability across occasions ( $B = -1.21$ , 95% CI [-1.89, -.56]). AS significantly predicted overall levels of anxious arousal ( $B = .03$ , [CI; .02, .04]). This was qualified by a significant AS by ACS interaction ( $B = -.002$ , 95% CI [-.004, -.001]). Probing this interaction at  $\pm 1$  SD ACS scores, the effect of AS was significant at low scores on the ACS ( $B = .05$ , 95% CI [.03, .06]) but not at high levels of AC ( $B = .02$ , 95% CI [.00, .03]). AS also significantly predicted differences in variability ( $B = .11$ , 95% CI [.04, .17]). For anxious apprehension, there was a significant lagged effect ( $B = .31$ , 95% CI [.24, .37]). Baseline AS significantly predicted overall levels of anxious apprehension ( $B = .04$ , .15) as well as variability in anxious apprehension scores ( $B = .09$ , 95% CI [.04, .15]). There were no significant AS by TBR interactions.

These findings suggest that poor AC potentiates the effects of AS on anxious arousal, but not on anxious apprehension. Further, these findings did not support the use of TBR in predicting daily fluctuations in anxiety symptoms. Together, these findings support the moderating role of AC in the development of anxiety.

### **Does Anxiety Sensitivity Predict Prescription Drug Misuse in Adolescents? A One-Year Prospective Study**

**Sherry Stewart, Dalhousie University, Canada**

**Patricia Conrod, Université de Montreal, Canada**

**Annie Chinneck, Dalhousie University, Canada**

**Mohammad Afzali, Université de Montreal, Canada**

**Raquel Nogueira-Arjona & Ioan Mahu, Dalhousie University, Canada**

Access to prescription drugs (PDs), including opioids, is at an all-time high and North America is facing a prescription drug misuse crisis. Personality factors like anxiety sensitivity (AS) are implicated in theoretical models of risk for substance misuse generally and PD misuse specifically (Stewart et al., 2018). Some data implicates AS in risk for sedative/tranquilizer and/or opioid misuse (Chinneck et al., 2018; Conrod et al., 2000; Mahu et al., 2019; Rogers et al., 2019; Woicik et al., 2009). However, the extant literature is limited by cross-sectional designs, use of specific clinical populations (general addictions, opiate substitution therapy, or chronic pain clients), lack of control of other personality factors that overlap with AS (e.g., hopelessness), failure to separate depressant PDs into specific classes, and/or focus on adults vs. adolescents. Of any age group, 15-25-year-olds are the most likely to misuse PDs. Few studies have tested theoretical models of adolescent risk for PD misuse, generally or by PD class. This prospective study examined whether there is a predictive link between AS and PD misuse over one year in a large sample of Canadian adolescents, how specific this link is to sedatives/tranquilizers (vs. opiates and stimulants), and what mediates this link. We tested theory-driven mediational paths from personality to mental health symptoms to PD misuse. Our hypotheses were informed by etiological models of addiction (i.e., affect regulation, psychological dysregulation, deviance proneness). We used semi-longitudinal data collected during the Co-Venture Trial (O'Leary-Barrett et al., 2017). Participants were 3,024 students from 31 Canadian high-schools, tested in Grade 9 (September 2014-May 2015; mean age=14.79) and again in Grade 10 (September 2015-May 2016; mean age=15.83; 95% retention). Students were 51% male and predominantly middle-class. Personality (AS, hopelessness, impulsivity, sensation seeking) was assessed with the well-validated Substance Use Risk Profile Scale (Woicik et al., 2009) in Grade 9. Mental health symptoms (depression and anxiety with the Brief Symptom Inventory-18 [Derogatis, 2001]; attention-deficit/hyperactivity [ADHD] and conduct disorder symptoms with Strengths and Difficulties Questionnaire subscales [Goodman, 1997]) and PD misuse (i.e., misuse of opioids, sedatives/tranquilizers, and stimulants with the validated Detection of Alcohol and Drug Problems in Adolescents [Landry et al., 2004]) were assessed at both time points. Consistent with negative affect regulation, AS specifically predicted sedative/tranquilizer misuse via anxiety symptoms. This pathway was distinct from the other substantiated negative affect regulation pathway: hopelessness to opioid misuse via depressive symptoms. It was also distinct from the pathway informed by the psychological dysregulation model: impulsivity to stimulant misuse via ADHD symptoms. Consistent with deviance proneness, impulsivity also predicted unconstrained PD misuse via conduct disorder symptoms. Identifying youth high in personality risk may benefit targeted prevention and early intervention efforts for PD misuse. Personality-matched CBT interventions may reduce their risk for PD misuse. High AS youth may especially benefit from interventions focusing on anxiety management to prevent their specific risk for sedative/tranquilizer misuse.

## **Challenges of Cognitive Behavioral Therapy Interventions in Different Countries of Latin America**

**Convenor: Carmem Beatriz Neufeld, University of São Paulo, Brazil**

**Discussant: Carmem Beatriz Neufeld, University of São Paulo, Brazil**

### **Cultural Adaptations of Dialectical Behavioral Therapy in Brazil**

**Wilson Melo, Brazilian Federation of Cognitive Therapies, Brazil**

Developed by Marsha M. Linehan, PhD (1993) from Washington University, and based on a significant number of researches, Dialectical Behavioral Therapy (DBT) uses behavioral strategies associated with Zen Buddhism / contemplative practices and dialectical philosophy. It is a comprehensive treatment developed initially to handle with suicidal situations in women. As many suicidal issues occur often in borderline personality disorder patients, this treatment becomes known as an intervention for this psychopathology, specially in the most severe cases. However, in the past two decades, this model started to be used in many other clinical settings and different contexts such as depressive, bipolar, anxiety and food and feed disorders, etc. There are some publications with DBT in suicidal adolescents, elderly, forensic contexts and couples with complex behavior problems. Suicidal crisis, repeated hospitalization, self-injuries behaviors, substance abuses are some of the problems observed in patients with complex problems and multiple psychiatric comorbidities. The biosocial model understands that the biological vulnerabilities associated with the invalidating environments are the key point to the high emotional arousing. The emotional deregulation leads to a cognitive, interpersonal, self and behavioral deregulation. There is one pre-treatment stage and other four stages of treatment, and each one has some specific objectives to be reached. The emotional regulations and generalization of the skills that were learned is one of the main objectives in the beginning of the treatment. It involves individual psychotherapy associated to coaching phone calls, weekly skills training group sessions, consultation team meetings for therapists and auxiliary treatments (i.e. hospitalization team, physicians, nutritionist, social worker, pharmacologist, personal trainer, etc.). The skills training group sessions focus in teaching mindfulness, emotional regulation, distress tolerance and effective interpersonal skills. Comprehensive, integrative and supported by results, DBT has aroused great interest among current psychotherapists worldwide. Although it is an evidence based intervention, many cultural adaptations are needed when we adopt the standard model in different countries. These adaptations include group settings, economic issues, family members' participation, etc. This speech aims to discuss the adaptations made in Latin America, especially in Brazil. It also discusses the difficulties in starting a DBT program and the need to adapt instead of adopting the model in some cases.

### **The Impact of a School-Based Eating Disorders Prevention Program in Adolescent Girls from Buenos Aires, Argentina**

**Guillermina Rutzstein, University of Buenos Aires, Argentina**

In the last few decades much effort has been devoted to developing prevention programs for eating disorders, as most individuals with these pathologies do not receive treatment and tend to become chronic. The purpose of this study was to evaluate a cognitive dissonance and media literacy intervention aimed at preventing eating disorders in female adolescents. Interactive activities focused on reducing risk factors for eating disorders, as well as on promoting healthy eating patterns, were included. Eighty-eight female students (aged 12-17) from Argentina, participated in a 3-session program. Adolescents completed a baseline, post-intervention and a 6-month follow-up survey. A significant decrease in thin-ideal internalization, body image concerns, influence of advertising, drive for thinness and bulimic attitudes was found at post-intervention. In addition, the number of participants with disturbed eating attitudes and behaviors decreased at post-intervention. Results for body image concerns and drive for thinness were maintained at follow-up.

### **Adapting Cognitive Behavioral Therapy/ Rational Emotive Behavior Therapy in Developing Countries: The Example of Paraguay**

**Maria Celeste Airdi, Catholic University Nuestra Señora de la Asunción, Paraguay**

Psychotherapy is still a developing science in Paraguay, considering that the country's first psychologists graduated in 1966. While the interest in evidence-based psychotherapies has grown in the last decade, its dissemination and training is still a challenge, especially in a country where the resources for research are very limited. However, clinical needs are in high demand, and therefore, research that considers the cultural and linguistic characteristics of the country are required. The objective of this presentation is to illustrate how the particular cultural characteristics of the Paraguayans influence the implementation of REBT and CBT, including their most frequent cognitive distortions and how bilingualism significantly affects the way of thinking. Recommendations on how to adapt therapeutic strategies in the clinical setting will be presented, as a way to help psychotherapists who attend clients, not only from Paraguay, but also from other developing Latin American countries with similar cultural characteristics.

### **Cognitive Behavioral Therapy in Uruguay: History, New Developments and Contributions to Alcohol Public Policies**

**Paul Ruiz Santos, Universidad de la República, Uruguay**

Cognitive behavioral therapy (CBT) has had an extended development in Uruguay since the creation of scientific societies that began to provide specialized training since the eighties. Today there are several institutions that provide training in CBT, in addition to specialized in third-wave theories groups such as ACT, DBT, mindfulness, among others. Our scientific society (Uruguayan Society for Analysis and Behavioral Modification, SUAMOC), pioneer in CBT development in Uruguay, has not only impacted on graduate training programs for our country's psychologists, it has also become one of the most requested post-graduate options in psychotherapy. In addition to this, it has contributed to the university degree formation that include optative courses based on CBT, most of them imparted by teachers of our society. The CBT development has not only impacted at a undergraduate and postgraduate training level, it also helped develop specific research programs where CBT tools are applied onto clinical problems. An example of this, constitutes the development of clinical tools which were instrumented for the orientation of public policies regarding alcohol consumption. Due to its relevancy, we are organizing the First Alcohol Consumption Congress in Uruguay, scheduled to place in June 2019. It will emphasize on clinical interventions applied to reduce alcohol consumption at individual, groups and extended social levels. All the experiences that will be presented are based on a behavioral cognitive approach and referred to public policies applied for the treatment and control of alcohol consumption in our country. As a result, CBT development in Uruguay has generated different opportunities for academic training for health professionals. It has also contributed to generating clinical evidencebased intervention devices such as the ones mentioned regarding public policies based on treating and preventing alcohol consumption.

## **Recent Advances in Cognitive Behavioral Therapy for Underserved Populations in Asia**

**Convenor: Kee-hong Choi, Korea University, South Korea**

**Chair: Jeong-Ho Kim, The Catholic University of Korea, South Korea**

**Discussant: Jeong-ho Chae, The Catholic University of Korea, South Korea**

## **Emerging Developments on the Practice of Cognitive Behaviour Therapy Among the Marginalised Population in Malaysia**

**Alvin Lai Oon Ng, Sunway University, Malaysia**

Cognitive behaviour therapy is a relatively new development in Malaysia given that psychiatry has been the forefront of mental health services all these while, with counselling and clinical psychology only beginning to develop in the 1990s. While counselling bloomed quickly using the Rogerian method of psychotherapy, cognitive behaviour therapy was slow to advance as the typical practitioners in Malaysia were clinical psychologists, who grew much slower than the counselling profession. This paper presents a general report of the development of cognitive behaviour therapy being applied in clinical practice within mental health services in Malaysia, with special focus on how it is being introduced to underserved communities. The results of studies undertaken with marginalised communities and ongoing projects will be discussed with regards to indigenous adaptations of concepts as well as practical barriers faced by practitioners.

## **Developing an Imagery-Based Phased Psychotherapy for Disaster Survivors in South Korea**

**Dae-ho Kim, Hanyang University, South Korea**

**Introduction:** There exists a high demand for an efficient, safe, and short-term psychosocial treatment in face of mass disaster and other psychological trauma especially, in the early period of trauma but also at the long-term stage as well. Training and dissemination for practitioners is another issue that needs to be considered. This presentation will cover the process and initial results from 4 year-government funded research project for development of phased stabilization and exposure therapy based on imagery techniques in South Korea.

**Method:** We developed a phased 8-session treatment protocol combining micro-interventions of stabilization techniques, imagery rescripting, and imaginal exposure. To assess face validity of the therapy protocol, 30 psychotherapists were surveyed with a questionnaire. The questionnaire involved 15 items for effectiveness, safety, validity for trauma therapy, practitioner and client perspectives, and time/number of sessions and rating items for each intervention. Each item score has a range of 1 to 10. Next, the protocol was also rated by 10 clients who received the treatment and their therapists in case studies. For clinical trial, we delivered the protocol to those trauma survivors at acute (within one month after exposure to trauma), subacute (1-3 months), and chronic (after 3 months) phase.

**Results:** Our protocol received overall rating of mean 8.47 (SD = 0.94) and each intervention ranged between 8.10 (emotional freedom technique) - 9.17 (psychoeducation) among psychotherapists. Clients reported a mean of 8.10 (SD = 1.45) and their therapists a mean of 8.10 (SD = 1.10) as overall rating for the protocol. We will also report the interim results for clinical trials on the way.

**Conclusion:** Therapists' overall rating for face validity was positive as well as rating from clients and their therapists. And interim results for clinical trials suggest that this protocol is a promising intervention for helping disaster survivors to cope with traumas who are at various time phases after traumatic events.

## **A Cognitive Behavioural Analysis of Increasing Farmer Suicides in a Primarily Agrarian Indian Society Moving Towards Globalization**

**Nimisha Kumar, Shree Guru Gobind Singh Tricentenary University, India**

India is an agrarian country with around 70% of its people depending directly or indirectly upon agriculture. It is also an important sector of Indian economy as it contributes about 17% to the total GDP. However, farmers are faced with myriad challenges including climatic, economic, individual and social. Farmer suicides account for 11.2% of all suicides in India. A number of conflicting reasons have been put forth for farmer suicides, such as high debt burdens, poor government policies, corruption in subsidies, monsoon (rain) failure, lack of public mental health services, personal issues and family problems. The situation is further complicated by the rapid modernization and globalization which has led to a socio-economic disequilibrium in society. By far, the most common mental disorders that contribute to suicide are stress and depression, which can be a result of a range of social, economic and health factors, especially in rural communities. In addition, most of the rural population do not have community or support services for the prevention of depression and suicide and have restricted access to care for mental illnesses. While debates continue to rage on reforming the agricultural sector to improve the economic conditions of the farmer, there has not been any attempt to focus on the possible psychological problems arising out of economic stress as well as the lack of psycho-education and psychological coping skills prevalent in this underserved rural population, which forms a major chunk of the Indian society.

This paper is conceptual and attempts to evaluate the situation of farmer suicides in India based on the tenet that health and illness are the result of a complex interplay between biological, psychological, social, environmental, economic and political factors. The Cognitive Behavioural model is particularly suitable as it takes into account both individual and contextual factors contributing to belief systems, emotional states and behavioural outcomes.

For every Indian farmer who takes his own life, a family is hounded by the debt he leaves behind, typically resulting in children dropping out of school to become farmhands as well as suicidal risk and emotional distress in surviving members. Farmers' suicides have to be tackled on several fronts and addressing mental health problems is just one of them, but certainly a major part of the solution. A cognitive behavioural analysis of the situation may not only lead to a better understanding of the situation but may also lead to possible interventional strategies which could be used in training and sensitization of community health workers who are in a better position to reach out to the grossly underserved rural population in India.

## **Community-Based Multi-Site Randomized Controlled Trial of Behavioral Activation for Community Dwelling Individuals with Chronic and Severe Mental Disorders**

**Kee-hong Choi, Eunbyeol Lee, & Yun-Ji Cha, Korea University, South Korea**

**Ji-Hye Oh & Ho-Jun Seo, The Catholic University of Korea, South Korea**

**Introduction:** Evidence-based psychosocial rehabilitation receives growing attention for the quality care and cost-effectiveness of mental health services worldwide. Behavioral activation (BA), which is an evidence-based treatment for depression, is a promising candidate treatment option for community-dwelling patients with depressive disorders (DD) or negative symptoms of schizophrenia (SZ). Given its brevity and strong empirical support, it would be suitable for service delivery by community mental health professionals with adequate



training. The current study is the first randomized controlled trial (RCT) to investigate feasibility and efficacy for further dissemination of BA in community mental health settings.

**Objectives:** The primary purpose of the current study was to investigate whether BA as an adjunct to treatment as usual (TAU) would produce greater reductions in depressive symptoms and negative symptoms (each in patients with depression and schizophrenia) as compared to TAU only in community mental health settings. In addition, we explored whether treatment effects would maintain 6-month after the termination of the treatment.

**Methods:** For multi-site trials, mental health professionals were trained with a 10-session BA manual for DD and SZ. BA was delivered in a group or individual format once a week for 10 weeks by trained professionals and treatment fidelity was checked by the authors. Seventy-five patients with DD and 84 patients with SZ were recruited. Sixty-seven DD patients and 72 SZ patients who met the inclusion criteria were randomly assigned to either the BA+TAU (n=34 for DD, n=38 for SZ) or TAU only group (n=33 for DD, n=34 for SZ). Depressive symptoms of DD patients and negative symptoms of SZ patients were measured utilizing clinical interviews and self-report questionnaires at baseline, end of the intervention, and 6-month follow-up (FU).

**Results:** BA was well accepted by community dwelling individuals with DD and SZ. Intention-to-treat analyses indicated that compared to TAU condition, BA+TAU group was associated with large improvement at post-treatment in targeted symptoms (depressive symptoms in DD and negative symptoms in SZ). However, the significant treatment benefits were not maintained at the 6-month FU.

**Conclusions:** The results demonstrate the feasibility and the efficacy of BA as an adjunct to TAU for community dwelling individuals with chronic and severe mental disorders when delivered by community mental health professionals. Future trials should explore whether longer treatment sessions or service delivery by more experienced BA therapists would lead to greater improvement and longer treatment benefits.

**Convenor: Karen Szupczynski, Federal University of Grande Dourados, Brazil**

### **Training of Cognitive Therapists in Argentina**

**Ruth Wilner, Asociación Argentina de Terapia Cognitiva and Asociación Latinoamericana de Psicoterapias Cognitivas, Argentina**  
Argentina has one of the highest levels of psychologist per capita of the world. With a population of 40 million, there are ca. 94,000 psychologist in the country. That means that there is one psychologist per 491 habitants. Formerly psychodynamic training was predominantly. Nevertheless, in the past few years, there has been an increase on the training in CBT in Argentina. The Argentine Association of Cognitive Therapy (AATC) is the institution that certifies the specialization in this area. There are many institutes, public and private, that offer postgraduate courses and specialize on this area. The Center of Cognitive Therapy (CTC) is one of them. This institution was founded in Buenos Aires on 1987 by a group of psychologists and psychiatrist interested on the cognitive approach. It's focuses on running courses to help health professionals to perfect their knowledge to apply the cognitive approach on their patients. The CTC has dictated online courses to more than 14,000 professionals. The online method was implemented on 2010 and has allowed the CTC to branch out and reach students all over the world. Online teaching is a challenge. During this presentation the experience of the CTC will be analyzed and the strength and weaknesses of online teaching will be exposed.

### **Design of a Theory-Based Computer Tailored Intervention to Prevent Dating Violence Among Brazilian Youth**

**Sheila Giardini Murta, Priscila Oliveira Parada Sara da Silva Meneses, João Victor Venâncio Medeiros, Amanda Balbino, Marina Caricatti, Marco Akira Miura & Thiago André Araújo dos Santos, University of Brasília, Brazil**

**Hein Vries, Maastricht University**

Dating violence has an alarming prevalence among Brazilian adolescents. School-based preventive programs have been implemented, but remain to be isolated initiatives with low reach. Health education strategies based on innovative technologies with a high potential of diffusion are urgent. This study aimed to develop a computer-tailored intervention to prevent victimization and perpetration of dating violence among Brazilian youth. The intervention, called SOS Namoro, is based on the I-Change Model and Attachment Theory and is a universal preventive program targeted to adolescents with a current partner. According to the I-Change Model, it is expected that the users will increase their knowledge of dating violence and quality of relationships; decrease attitudes of violence tolerance; criticize social norms that endorse sexist practices; identify sources of social support; distinguish positive from negative romantic relationships models; and improve self-efficacy to implement protection plans in the face of violence. According to the Attachment Theory, it is assumed that the intervention will favor responsiveness and management of conflict skills. The design included a needs assessment; a definition of objectives of change; development of the library of messages; elaboration of a questionnaire for tailoring feedbacks according to the relevant variables; integration of the content in the software Tailor Builder; pre-testing; and usability and efficacy evaluation planning. As a result, an intervention composing of four online sessions was developed. Session 1 gives a tailored orientation on attachment style and risk perception of violence. Session 2 addresses knowledge on conflict management, intimate relationships models and an action plan to improve everyday interactions. Session 3 covers social norms, self-efficacy and an action plan to cope with conflicts. Session 4 discusses attitudes, social support and an action plan to protect from violence. Improvements on the interface and tailoring refinement was done after pre-testing to improve attractiveness and decrease risk of iatrogenic effects. The intervention usability and efficacy should be investigated in further studies.

### **Effectiveness of an Internet-Based Self-Guided Program to Treat Depression in a Sample of Brazilian Users: A Study Protocol**

**Rodrigo Lopes, Universidade Católica de Petrópolis, Brazil**

**Björn Meyes, Gaia AG, Germany**

Deprex is a program designed on the basis of empirically based principles of cognitive-behavioral therapies to reduce depressive symptoms. Evidence from several previous trials supports Deprex's effectiveness in German-speaking countries and in the United States of America, but as far as we know, no study has yet been conducted using this treatment format in countries with low literacy rates. The aim of this presentation is to evaluate preliminary evidence of a randomized controlled trial designed to test the effectiveness of Deprex with Brazilian users. Participants with clinically significant depressive symptoms and diagnosed with a depressive disorder were recruited through the Internet (forums, social networks, e-mail lists in Brazil) and randomly assigned to (1) treatment as usual (TAU) plus immediate access to Deprex, or (2) TAU and delayed access to Deprex (after 8 weeks). Effectiveness is defined as change in the primary outcome measure (PHQ-9) and in the second outcome measure (CORE-OM).

### **Boomerang Effect in an Online Program to Prevent Alcohol Abuse in University Students**

**Karen P. Del Rio Szupszynski, Federal University of Grande Dourados, Brazil**

**Ana Regina Noto & André Bedendo, Federal University of São Paulo, Brazil**

The use of licit and illicit drugs has been increasing worldwide. The focus of studies associated with chemical dependency has been increasingly centered on forms of treatment or effective prevention programs. Alcohol is one of the fastest growing drug among young people. Some studies indicate that only 12% of people with alcohol dependence receive some kind of treatment. In view of the treatments that are still low adherent, the expenses with chemical dependents have greatly affected the public health system in Brazil as well as in several countries. Thus, brief interventions, over the telephone or the Internet, have been studied as alternative methods and had been demonstrated efficacy among non-addicts, reducing consumption amount and increasing awareness about the possible problems that continued use of a drug can bring. Among the most used models for chemical dependence treatment, the most cited methods have been the motivational models, Normative Feedback and Personalized Normative Feedback. The objective of this study was to analyze the profile of alcohol consumption among Brazilian university students who participated in a Personalized Normative Feedback intervention via the internet and the presence of boomerang effect after the intervention. The sample consisted of 4631 university students who underwent evaluation, intervention and three follow-ups (1, 3 and 6 months). Most participants were female (52.34%), private institutions students (79.94%) and 73.53% of respondents reported binge drinking at least once in their lifetime. According to statistical analyzes, the proposed intervention demonstrated a decrease in the typical doses number consumed after 3 months ( $p = 0.001$ , CI 95%). The data collected showed that the proposed intervention by the internet (via the site) can bring positive and promising results. The study also evaluated a possible boomerang effect among college students who had low alcohol consumption in the evaluation. However, the data do not confirm the existence of this phenomenon among the studied population and emphasized the importance of considering the motivation level of the participant to perform the intervention. It is concluded that alcohol consumption has broadened researchers discussion about effective ways to prevent abusive and/or dependent uses and that internet interventions can be quite effective.

### **New Developments in Transcultural Clinical Psychology and Psychotherapy**

**Convenor: Ulrike von Lersner, Humboldt-University Berlin, Germany**

**Discussant: Ulrike von Lersner, Humboldt-University Berlin, Germany**

### **Prevalence of Posttraumatic Stress Disorder, Depression, and Somatization in Recently Arrived Refugees in Germany: An Epidemiological Study**

**Yuriy Nesterko, David Jäckle, Michael Friedrich, Laura Holzapfel & Heide Glaesmer, University of Leipzig, Germany**

**Aims:** Despite recent worldwide migratory movements, there are only a few studies available that report robust epidemiological data on mental health in recent refugee populations. In the present study, PTSD, depression, and somatization were assessed using an epidemiological approach in refugees who have recently arrived in Germany from different countries.

**Methods:** The study was conducted in a reception facility for asylum-seekers in Leipzig, Germany. A total of 1,316 adult individuals arrived at the facility during the survey period (May 2017 – June 2018), 569 of whom took part in the study ( $N=67$  pilot study and  $N=502$  study sample; response rate 43.2%). The questionnaire (11 different languages) included sociodemographic and flight-related questions as well as standardized instruments for assessing PTSD (PCL-5), depression (PHQ-9), and somatization (SSS-8). Unweighted and weighted prevalence rates of PTSD, depression, and somatization were presented stratified by sex and age groups.

**Results:** According to established cut-off scores, 49.7% of the respondents screened positive for at least one of the mental disorders investigated, with 31% suffering from somatization, 21.7% from depression, and 34.9% from PTSD; prevalence rates of major depression, other depressive syndrome, and PTSD were calculated according to the DSM-5, which indicated rates of 10.3%, 17.6%, and 28.2% respectively.

**Conclusions:** The findings underline the dramatic mental health burden present among refugees and provide important information for health care planning. They also provide important information for health care systems and political authorities in receiving countries and strongly indicate the necessity of establishing early psychosocial support for refugees suffering from psychological distress.

### **Personality and Psychological Well-Being: Cross-Cultural Commonalities Between Iran and Germany**

**Atzor Marie-Christin, Philipps-University Marburg, Germany**

**Purpose:** It is well known that personality traits are important for psychological well-being and might thus also be relevant for psychotherapeutic care. Despite the increasing number of patients from different cultures requiring therapy, treating culturally diverse patients is still a major challenge for therapists. Cultural differences are often highlighted while similarities have only rarely been investigated. The aim of the current study was therefore to specifically investigate the relation of the Big-Five personality traits and psychological well-being (PWB) in a mixed Iranian-German sample.

**Methods:** University students from Iran ( $N = 272$ ) and Germany ( $N = 339$ ) took part in an online survey including the Big-Five personality test NEO-FFI, as well the Ryff Scales of psychological well-being. For both inventories, validated versions in Persian and German were used. In addition, demographic information was assessed. MANOVAs were used to investigate group differences in the several scales. The role of personality traits for PWB was analysed using linear regression analyses with age, gender and cultural background included as control variables.

**Results:** The MANOVA revealed significant group differences in all NEO-FFI traits. The regression analysis indicated that personality traits are significantly related with PWB ( $F(4,597)=181.64$ ,  $p<.001$ ). With high values in extraversion, conscientiousness and openness to experience and with low neuroticism values, PWB increases. In total, 54.6% of PWB is explained by variance in personality traits, which corresponds to a strong effect. Importantly, cultural background did not significantly influence the relation between personality and PWB ( $F(1,24) = .76$ ,  $p=.678$ ). No significant effects for gender and age were found.

**Discussion:** The results of the present study suggest the importance of personality traits for PWB in a mixed Iranian-German academic sample. The relationship remained stable independent of cultural background. A possible explanation for this finding is the fact that the two samples were well comparable in terms of educational level as well as distribution of age and gender. Future research should therefore investigate the relation of personality and PWB in differently compiled samples, e.g. with differing milieu affiliations.

**Implications for everyday clinical practice of CBT:** The findings of the study strengthen the understanding of culture being a vivid and hybrid process (instead of a distinct category) and is thus particularly important for transcultural therapy settings. It is the challenge in transcultural therapy to refrain from a categorisation based on ethnic background but instead to identify commonalities in the sense of shared

spaces of meaning between patient and therapist. The results of the study should help engaging in a holistic, unprejudiced approach when working with culturally diverse patients.

### **Beliefs About Mental Illness and Their Influence on Mental Health Care Use - A Cultural Comparison**

**Nohr Laura, University of Münster, Germany**

**Alexis Lorenzo Ruiz, University of Havana, Cuba**

**Juan Emilio Sandoval Ferrer, University Hospital General Calixto García, Cuba**

**Ulrike Buhlmann, University of Münster, Germany**

**Introduction:** Negative attitudes towards mental illness and mental health patients are often associated with negative attitudes towards mental health care use (Clement et al., 2015). These attitudes reduce the willingness to seek professional help when needed. The current study investigates the influence of mental health stigma on anticipated use of mental health care in a Cuban and a German sample. In both countries, mental health care forms part of the public health care system and its access is at no charge (Cuba) or covered by the statutory health insurance (Germany). Thus, health care use is not to the same extent affected by economic prosperity like in other countries (e.g. the USA).

**Methods:** To assess explicit stigma of mental disorders, the BMI (Hirai & Clum, 2000) was used to measure negative stereotypes of mentally ill persons, while the CAMI (Taylor & Dear, 1981) captured community attitudes towards the mentally ill. Furthermore, we assessed attitudes towards mental health care use (ATSPPHS-SF; Fischer & Farina, 1995) and the influence of mental health care use on self-esteem (SSOHS; Vogel et al., 2006). As covariates, we asked for familiarity with mental illness, former mental health care use and its subjective efficacy (GHSQ; Deane et al., 2001).

**Results:** First analysis show significant differences between the Cuban (n=195) and the German sample (n=166). Cuban participants were significantly older,  $t(346)=12.46$ ,  $p<.001$  and reported less contact with mentally ill persons in their everyday life,  $t(351)=4.72$ ,  $p<.001$ . Further, they reported more positive attitudes towards seeking professional psychological help,  $t(261)=6.08$ ,  $p<.001$  and less impairment of their self-esteem because of professional help-seeking,  $t(302)=-4.83$ ,  $p<.001$ ; but at the same time more negative beliefs about mentally ill persons,  $t(289)=5.71$ ,  $p<.001$ . Multiple regression in the complete sample (N=361) indicated that the Cuban context predicted positive attitudes toward seeking professional help (cultural context x ATSPPHS-SF:  $B=-2.31$ ,  $CI=-3.41 - -1.20$ ,  $p<.001$ ) in addition to age (age x ATSPPHS-SF:  $B=0.049$ ,  $CI=-0.016 - 0.083$ ,  $p=.004$ ) and beliefs about mental illness (BMI x ATSPPHS-SF:  $B=-0.021$ ,  $CI=-0.037 - -0.006$ ,  $p=.008$ ). Further, multiple regression indicated that the Cuban context predicted a less negative influence of mental health care use on self-esteem (cultural context x SSOHS:  $B=4.08$ ,  $CI=2.30 - 5.85$ ,  $p<.001$ ) on the top of beliefs about mental illness (BMI x SSOHS:  $B=-0.056$ ,  $CI=-0.031 - 0.81$ ,  $p<.001$ ) and community attitudes (CAMI x SSOHS:  $B=0.098$ ,  $CI=0.046 - 0.150$ ,  $p<.001$ ).

**Discussion:** Results suggest that explicit mental health stigma is a relevant barrier of seeking mental health care. Moreover, first analyses show that both – mental health stigma and influence on attitudes toward professional psychological help – strongly depend on the cultural context, in this case the Cuban or German culture.

**Conclusion:** We need to learn more about the influence of attitudes toward mental illness on mental health care use in different cultural contexts. Cultural-sensitive information and educational programs might help to reduce the negative influence of stigma on mental health care use. This is in particular of high importance for especially vulnerable populations (e.g., migrants in need of treatment in an unfamiliar cultural context and health care system).

### **Affective Arrangements in Psychotherapeutic Settings for Vietnamese Migrants in Germany**

**Tam Tha Thi Minh & Main Huong Nguyen, Charité University Medicine, Germany**

Since 2010 psychiatric care has been utilized by more than 500, mainly first- generation Vietnamese migrants stemming from different regimes of migration especially to former West and East Germany.

With our presentation as a part psychiatric-anthropological subproject of the CRC Affective Societies, we highlight potential application of Affective Arrangements at a macro level within group-therapy settings and illustrate how affective relations between actors, groups, and their surroundings emerge. At a micro level, we focus on therapeutic variations of arrangements that affect our patients' emotions, cognitions and bodily sensations. By complementing interdisciplinary and personal perspectives, we use the framework of affective arrangements as part of a person-centered and longitudinal understanding of affective experiences in the trajectories of migrants concerning their biography and situatedness in life. Applying the concept of affective arrangements in therapy and ethnographic encounters revealed speechlessness as not only a reaction towards inner or outer distress but a source of distress itself. More specifically, we portray different variations of speechlessness, namely code-switching and silence. Moreover, we argue that being aware of them enables researchers, clinicians, and patients to seek and create beneficial affective arrangements intentionally.

When conceptualizing Affective Arrangements as potential therapeutic tools, that may elicit strong or calming emotions and affective resonances or dissonances with spaces, places, and materiality, we argue for an implementation of such concepts, derived from philosophy of affect (Slaby et al., 2017), into newer developments of cultural psychiatry and environmental psychology. For example, patients with depression thus learn to recognize how arrangements shape interpersonal communication, objects, discourses, feelings of belonging and its effects on symptoms of depression.

## **Symposia 10: Depression**

### **Primary Prevention of Depression Program for At-Risk Adolescents**

**Convenor: Eiríkur Örn Arnarson, Landspítali - National University Hospital of Iceland, Iceland**

**Chair: Edward Craighead, Emory University, USA**

**Discussant: Edward Craighead, Emory University, USA**

### **Prevention of Depression Among Icelandic at-Risk Adolescents**

**Eiríkur Örn Arnarson, Landspítali - National University Hospital of Iceland, Iceland**

**W. Edward Craighead, Emory University, USA**

Objectives

Major depression and dysthymia are frequent, debilitating, and chronic disorders, whose highest rate of initial onset occurs during the late adolescent years. The effectiveness of a program designed to prevent an initial episode of major depression or dysthymia among adolescents was investigated.

#### Methods

Participants were 171 fourteen-year-old "at risk" but never previously depressed Icelandic adolescents who were randomly assigned to a prevention program or a treatment-as-usual (TAU) assessment only control group. They were identified as "at risk" by reporting the presence of depressive symptoms or a negative attributional style. The program was based on a developmental psychosocial model of enhancement of resilience to factors associated with the occurrence of mood disorders. It was administered in a school setting by trained school psychologists. There was a manual for the group leaders and a workbook for the students. The program comprised 14 sessions with groups of 6-8 adolescents. Diagnostic clinical interview and self-report data were collected at baseline, posttest, 6-month follow up and 12-month follow up sessions. There were no significant differences between the prevention and TAU groups for dropout rates or for "dropouts" compared to the "completers" on any of the screening measures.

#### Results

At posttest, diagnoses of new (initial) episodes of depression and/or dysthymia were assigned to 2.5% of the TAU Control Group but 0% of the prevention group. By the 6-month follow-up, the diagnosis for initial episodes of depression and/or dysthymia had been assigned to 13.3% of the TAU group but only 1.6% in the prevention group; data for 12-month follow were similar (21% for the TAU group and 4% for prevention group). Twice as many girls as boys experience an initial episode of depression/dysthymia.

Survival curves for initial episode rates were separately estimated at 6- and 12-month follow-ups using the Cox proportional hazards model. Students not available for follow-up were treated as censored observations. At 6-month follow up, the prevention program relative to TAU significantly reduced the risk of development of a first episode of depression and/or dysthymia (Chi sq = 4.03, p = .0448; OR = .122). Survival analysis for the 12-month follow up data indicated continued group differences (Chi sq = 5.02, p = .025; OR = .182); at the end of 1-year follow up a student who participated in the prevention program was only 18.2% as likely to have developed an initial episode of the depression/dysthymia as a student who was in the TAU group. Stated differently, the prevention program relative to TAU decreased the likelihood of having a first episode by 81.8%.

A logistic regression model was estimated for the TAU condition subjects in order to determine if the screening CDI, CASQ-NEG, and the CASQ-POS predicted either the diagnosis of MDE/Dysthymia; ONLY the CDI significantly predicted the diagnosis of MDE/Dysthymia (estimate = .0997, SE = .0467, Wald sq = 4.55, p = .0330).

#### Conclusions

The results show that it is possible to prevent the development of depression in adolescents "at risk" who have not previously been depressed.

### **Prevention of Initial Depressive Disorders Among at-risk Portuguese Adolescents**

**Ana Paula Soares de Matos, Maria do Rosário Pinheiro, José Joaquim Costa & Maria do Céu Salvador, University of Coimbra, Portugal**

**Eiríkur Örn Arnarson, Landspítali-University Hospital, Iceland**

**Wade Edward Craighead, Emory University, USA**

The Portuguese research project that studied a risk profile for depression and the outcomes of the indicated depression prevention program, originally developed by Arnarson and Craighead, is presented and discussed. The culture adaptation of the program, the evaluation protocol, that included diagnostic interviews and self-report measures administered to the adolescents and parents, and the outcomes of a two-year longitudinal study are described.

For the prevention programme study, the sample was composed by 168 Portuguese "at risk" midadolescents with subsyndromal depressive symptoms but who have never experienced an episode of depression. From those, 70 agreed to participate in the program, and 98 agreed to participate only in an assessment control group. Subjects were evaluated at 6-, 12-, 18-, and 24-month. The at risk adolescents were identified by classroom screening with the CDI and subsequent K-SADS-PL interview. The A-LIFE interview was used for follow-up. Survival analyses indicated a significantly lower rate of initial episodes of depressive disorders among the prevention group participants compared to the assessment only comparison group.

The findings indicated the program can be successfully adapted for use in Portuguese schools and supported the efficacy of the programme to prevent the development of initial episodes of depressive disorders over the course of 24 months, in a real-world school setting that allowed youth identified as "at-risk" for depression to choose to participate in the program. The outcomes of the previous Icelandic research, that studied the indicated prevention programme in a RCT, were replicated.

### **Prevention of Adolescent Depression in Greece: CBT vs DBT**

**Christina Tsiligiri & Gregoris Simos, University of Macedonia, Greece**

Depression is one of the most common mental health problems worldwide. Prevalence rates increase significantly in adolescence and research suggests that adolescent depression is an important risk factor for future depressive episodes. Depressive symptoms, even at a non clinical level, can have a substantial effect on psychosocial functioning and are closely related with other mental health problems, such as anxiety. Taking into account the deleterious effects of depression in adolescence, research focuses on prevention. Cognitive behavioral therapy (CBT) is a well documented therapy for depression and cognitive behavioral prevention programs seem to result in the reduction of depressive symptoms in adolescents. The aim of the present study was to investigate the feasibility of an initial episode prevention program in a sample of "at risk" Greek adolescents. The specific CBT program used in our study is the one developed and successfully implemented by Arnarson and Craighead (2009) in Iceland. Since in the most CBT studies there is a lack of another comparator, we incorporated one more intervention program derived from Dialectical Behaviour Therapy (DBT). This program was based on the manualized protocol developed by Mazza, Dexter-Mazza, Miller, Rathus & Murphy (2016), which was originally designed as a part of social-emotional learning curriculum. In our study we included the Distress Tolerance and the Interpersonal Effectiveness skills training sections. The participants at the beginning of the study (screening phase) were 680 adolescents aged 14-15 years old. One hundred forty of them scored between the 73rd and 90th percentile on CDI and met the criteria for the next phase of the study, the diagnostic clinical interview. Eighty five participants agreed to continue with the clinical interview and five of them were excluded because they did not meet the inclusion criteria. Eighty adolescents were randomly assigned in the three conditions of the study: the CBT group, the DBT skills training group, and the control (wait-list) group. CBT and DBT interventions were provided in 14 weekly group sessions. Measurements were taken at pre- and post-intervention, and at 3 and 6 months follow-up. Overall participants in both the CBT and DBT reported lower scores in the depression questionnaires (CDI, KADS) compared to the control group at all assessment points. Participants were also interviewed at the six-month

follow up. Five participants from the control group received a diagnosis (4 met the criteria for depression), whereas one participant from the CBT group and one from the DBT group were diagnosed with depression. We discuss the preliminary results of our study and explore possible important variables for the enhancement of the efficacy of future adolescent depression prevention efforts.

### **Prevention of Depression of Initial Depressive Disorder Among at-Risk Swedish Adolescents**

**Guðný Sveinsdóttir & Josefine Lilja, Närhälsan, Sweden**

**Carl Wikberg, University of Gothenburg, Sweden**

**Maria Larsson & Torbjörn Erneholm, Närhälsan, Sweden**

**Ina Marteinsdottir, University of Linköping, Sweden**

**W. Edward Craighead, Emory University, USA**

**Eiríkur Örn Arnarson, Landspítali - University Hospital, Iceland**

The aim of the study is to replicate the Icelandic study on the prevention of depression in Sweden and to see if it works in Swedish school setting.

The project will identify students aged 14-15 in four secondary schools in two neighboring communes with depressive symptoms. Two schools will be offered a developmentally-based intervention program based on CBT including mindfulness and training in problem solving and students in the remaining schools will serve as controls. It is anticipated that 20 out of approximately 160/180 students will meet the criteria for inclusion in the intervention group and there will be an equal number in the control group.

A Student's manual and a Teacher's manual adapted to the age and maturity of the students have been adapted and translated to Swedish. The study will be a co-operative effort of the primary health care and the schools. The intervention will be lead by psychologists with the participation of school nurses.

There will be a follow-up at 6, 12 and 18 months and an evaluation of the number of students in the intervention group compared with the controls completing compulsory school. Additionally attendance statistics before and after the intervention will be monitored as well as psychiatric diagnosis and well-being.

### **Polygenic Risk: Predicting Depression Outcomes in Clinical and Epidemiological Cohorts of Youths**

**Þórhildur Halldórsdóttir & Elisabeth B. Binder, Max Planck Institute of Psychiatry, Germany**

**Ana Paula Soares de Matos, University of Coimbra, Portugal**

**Eiríkur Örn Arnarson, University of Iceland, Iceland**

**W. Edward Craighead, Emory University, USA**

**Gerd Schulte-Körne, Ludwig Maximilian University of Munich, Germany**

**Elisabeth B. Binder, Max Planck Institute of Psychiatry, Germany**

**Objective:** Identifying risk factors for major depression and depressive symptoms in youths could have important implications for prevention efforts. This study examined the association of polygenic risk scores (PRSs) for a broad depression phenotype derived from a large-scale genome-wide association study in adults, and its interaction with childhood abuse, with clinically relevant depression outcomes in clinical and epidemiological youth cohorts.

**Methods:** The clinical cohort comprised 279 youths with major depression (mean age=14.76 years [SD=2.00], 68% female) and 187 healthy controls (mean age=14.67 years [SD=2.45], 63% female). The first epidemiological cohort included 1,450 youths (mean age=13.99 years [SD=0.92], 63% female). Of those, 694 who were not clinically depressed at baseline underwent follow-ups at 6, 12, and 24 months. The replication epidemiological cohort comprised children assessed at ages 8 (N=184; 49.2% female) and 11 (N=317; 46.7% female) years. All cohorts were genome-wide genotyped and completed measures for major depression, depressive symptoms, and/or childhood abuse.

**Summary statistics** from the largest GWAS to date on depression were used to calculate the depression PRS.

**Results:** In the clinical cohort, the depression PRS predicted case-control status (odds ratio=1.560, 95% CI=1.230–1.980), depression severity ( $b=0.177$ ,  $SE=0.069$ ), and age at onset ( $b=-0.375$ ,  $SE=0.160$ ). In the first epidemiological cohort, the depression PRS predicted baseline depressive symptoms ( $b=0.557$ ,  $SE=0.200$ ) and prospectively predicted onset of moderate to severe depressive symptoms (hazard ratio=1.202, 95% CI=1.045–1.383). The associations with depressive symptoms were replicated in the second epidemiological cohort. Evidence was found for an additive, but not an interactive, effect of the depression PRS and childhood abuse on depression outcomes.

**Conclusions:** Depression PRSs derived from adults generalize to depression outcomes in youths and may serve as an early indicator of clinically significant levels of depression.

### **Memory Therapeutics: Disruptions in Autobiographical Memory Associated with Emotional Disorders and Their Improvement Through Intervention**

**Convenor: Tom Barry, The University of Hong Kong, Hong Kong, and King's College London, United Kingdom**

**Chair: Karen Salmon, Victoria University of Wellington, New Zealand**

**Discussant: Karen Salmon, Victoria University of Wellington, New Zealand**

### **An Individual Patient Data Meta-Analysis of the Role of Autobiographical Memory in Treatment Response to Cognitive Behavioural Therapies**

**Caitlin Hitchcock, Judita Rudokaite, Shivam Patel & Alicia Smith, University of Cambridge, United Kingdom**

**Ed Watkins, University of Exeter, United Kingdom**

**Tim Dalgleish, University of Cambridge, United Kingdom**

Cognitive-behavioural therapies rely heavily upon the ability to use specific autobiographical information to challenge the dysfunctional beliefs which drive depression. For example, to challenge the belief that one is a failure, one might retrieve an instance from the past where one succeeded. Difficulties in retrieving specific autobiographical memories may thereby impair the ability to engage in therapy and reduce treatment effects. This individual patient data meta-analysis examined whether the ability to retrieve specific autobiographical memories mediated or moderated treatment response to a range of cognitive behavioral therapies for individuals with a diagnosis of major depressive disorder.

### **The Transportability of Memory Specificity Training (MeST): Adapting an Intervention Derived from Experimental Psychology to Routine Clinical Practices**

**Tom Barry, The University of Hong Kong, Hong Kong, and King's College London, United Kingdom**

**Kris Martens, University of Leuven, Belgium**

**Keisuke Takano, Ludwig-Maximilians-University of Munich, Germany**

**Filip Raes, University of Leuven, Belgium**

Background: Accumulating evidence shows that a cognitive factor associated with a worsening of depressive symptoms amongst people with and without diagnoses of depression – reduced Autobiographical Memory (rAMS) – can be ameliorated by a group cognitive training protocol referred to as Memory Specificity Training (MeST). When transporting interventions such as MeST from research to routine clinical practices (RCPs), modifications are inevitable, with the chance that this will lead to a drop in effectiveness. We examined the transportability of MeST to RCPs as an add-on to treatment as usual with depressed in- and out- patients. Methods: We examined whether 1) MeST was adaptable to local needs of RCPs by implementing MeST in a joint decision-making process in seven Belgian RCPs; and, 2) whether adaptation is possible without losing MeST's effects on rAMS. The effectiveness of MeST was measured by pre- and post- intervention measurements of memory specificity. Results: Adaptations were made to the MeST protocol to optimize the fit with RCPs. Local needs of RCPs were met by dismantling MeST into different subparts. By dismantling MeST in this way, we were able to address several challenges raised by clinicians. In particular, multidisciplinary teams could divide the workload across different team members and, for the open version of MeST, the intervention could be offered continuously with tailored dosing per patient. Both closed and open versions of MeST, with or without peripheral components, and delivered by health professionals with different backgrounds, resulted in a significant increase in memory specificity for depressed in- and out- patients in RCPs. Conclusions: MeST is shown to be a transportable and adaptable add-on intervention which effectively maintains its core mechanism when delivered in RCPs.

### **Results from an RCT of Automated, Computerised Memory Specificity Training for Major Depressive Disorder (C-MeST)**

**David Hallford, Deakin University, Australia**

Memory Specificity Training (MeST) is an intervention developed from basic cognitive science to target a known disruption in depression in retrieving specific autobiographical memories. The evidence base for MeST's ability to remediate this disruption, and reduce depressive symptoms, has grown over the last 10 years and through a series of RCTs. This talk will present the results of a recent RCT of a computerised, fully automated, online version of MeST for adults with Major Depressive Disorder. This version of MeST utilises machine learning algorithms to provide feedback to participants over a series of lessons to improve their retrieval of specific autobiographical memories. The talk will report on outcomes on cognitive and clinical variables, tests of mediating pathways of effect, feedback from consumers, and future directions for this novel, and highly accessible intervention for clinical depression.

### **Harnessing Mental Imagery and Enhancing Memory Specificity: Developing a Brief Early Intervention for Adolescent Depression**

**Victoria Pile, Patrick Smith & Mary Leamy, King's College London, United Kingdom**

**Simon Blackwell, Ruhr-Universität Bochum, Germany**

**Richard Meiser-Stedman, University of East Anglia, United Kingdom**

**Barnaby Dunn, University of Exeter, United Kingdom**

**Emily Holmes, Uppsala University, Sweden**

**Jennifer Lau, King's College London, United Kingdom**

Adolescent depression is common and impairing. However, current psychological interventions are difficult to access and show limited evidence of effectiveness. Here, we test a novel psychological intervention, that targets dysfunctional mental imagery and overgeneral memory, in a feasibility randomised controlled trial (RCT). Fifty-six participants were randomised to the imagery-based cognitive behavioural intervention (ICBI) or non-directive supportive therapy (NDST). There were three assessment time points: pre-intervention, post-intervention and follow-up (three-months after completion). There were 6 dropouts (10.71%), no severe adverse events reported and quantitative ratings of acceptability were good. There was a larger reduction in symptoms of depression in the ICBI group compared to the NDST group (both at post and follow-up) as well as between group differences in anxiety. The ICBI group also showed a greater reduction in overgeneral memory. This study provides initial evidence that the intervention is acceptable to participants and leads to a reduction in depressive symptoms, with changes in some targeted psychological mechanisms. This offers promise for treatment innovation for adolescent depression and indicates conducting a definitive RCT to further assess the intervention.

### **Relapse Prevention in Depression with Cognitive Behavioral Interventions; at the Cross Roads Toward Sustainable Interventions**

**Convenor: Claudi Bockting, University of Zurich, Switzerland**

**Chair: Claudi Bockting, University of Amsterdam, the Netherlands**

**Discussant: Steven Hollon, Vanderbilt University, USA**

### **Tapering Antidepressants in Pregnant Women with Preventive Cognitive Therapy: An Ecological Momentary Assessment RCT**

**Marlies Brouwer, University of Amsterdam, the Netherlands**

Background: Women with a history of mental disorders may be at increased risk of perinatal depression. Previous studies showed that fluctuations of affect are related to an increased risk of recurrence of depression. Affect fluctuations and depression during pregnancy in turn have been linked to adverse effects in the offspring, including low birth weight. During pregnancy, current preventive treatments of depression include the use of antidepressant medication (ADM) and psychological interventions. To our knowledge, the question of whether pregnant women receiving psychological interventions, such as Preventive Cognitive Therapy (PCT), while tapering ADM have higher affect fluctuations and/or more recurrences of depression as compared to pregnant women continuing ADM, has not been investigated. Furthermore, it is currently unknown whether affect fluctuations can predict the return of depressive symptoms or recurrence of depression in pregnant women, and predict offspring health (as measured with birth weight).

**Objectives:** We sought to compare positive and negative affect fluctuations in pregnant women receiving PCT while tapering ADM to pregnant women continuing ADM, and to investigate if affect fluctuations in early pregnancy were related to birth weight.

**Method:** An ecological momentary assessment (EMA)-trial run alongside a Dutch randomized controlled trial (RCT) and prospective observational cohort of women using ADM at the start of pregnancy. In the EMA-trial, corresponding to the first eight weeks of the RCT and cohort, fluctuations of positive and negative affect were assessed. Recurrences of depression were assessed up to 12-weeks postpartum, and birth records were used to assess birth weight.

**Results:** In total, 19 pregnant women using ADM at start of their pregnancy participated in the ESM-trial. There were no significant differences in positive and negative affect fluctuations or recurrence rates between women receiving PCT while tapering ADM versus women continuing ADM. We found no association between affect fluctuations and prenatal depressive symptoms and birth weight (all  $p > 0.05$ ).

**Conclusion:** This explorative study showed that tapering antidepressants with the guidance of Preventive Cognitive Therapy may protect a pregnant woman against depression recurrences and affect fluctuations, without negative effects on birth weight. There is a high need for controlled studies focusing on tapering ADM with psychological interventions during pregnancy.

### **Do Medications Interfere with CBT's Enduring Effect?**

**Steven Hollon, Vanderbilt University, USA**

Cognitive therapy has an enduring effect that reduces risk for subsequent relapse among remitted patients by more than half relative to antidepressant medications following treatment termination and the same may be true for behavioral activation. That being said there are indications that adding medications may interfere with whatever enduring effect may be evident for the cognitive and behavioral interventions (CBT). Combined treatment typically enhances rates of remission and recovery although that tends to be strongly moderated such that enhanced outcomes tends to be limited to nonchronic patients who are more severe. Behavioral activation has not been as extensively evaluated as cognitive therapy but has shown evidence of an enduring effect in those few relevant trials. For example, a recent trial in rural India found that a culturally adapted version of behavioral activation called the Healthy Activity Program was not only superior to an enhanced usual care but also sustained treatment gains over a subsequent 9-month post-treatment follow-up.

### **Preventing Depressive Relapse Using Mindfulness-Based Cognitive Therapy: Do We Still Need Antidepressant Medication?**

**Marloes Huijbers, Radboud University Nijmegen, the Netherlands**

**Philip Spinhoven, Leiden University, the Netherlands**

**Jan Spijker, Pro Persona Nijmegen, the Netherlands**

**Henricus Ruhé, Radboud University Medical Center, the Netherlands**

**Digna van Schaik & Patricia van Oppen, GGZ InGeest and VU University Medical Center, the Netherlands**

**Willem Nolen, University Medical Center Groningen, the Netherlands**

**Anne Speckens, Radboud University Medical Center, the Netherlands**

**Background:** Mindfulness-Based Cognitive Therapy (MBCT) has been shown to be at least as effective as maintenance antidepressant medication (mADM) in preventing relapse in recurrent depression. However, information about its effectiveness in routine clinical practice is still scarce, and MBCT alone had not been compared with the combination of MBCT + mADM. This study investigated a) whether mADM could be discontinued responsibly after MBCT, i.e. without significantly increasing the relapse risk in comparison with the combination of MBCT + mADM (RCT 1), and b) whether MBCT would be a useful addition to mADM in patients who wanted to keep using their medication (RCT 2).

**Methods:** Two parallel-group, multi-center randomised controlled trials with a 15-month study period. Adult outpatients (N=317) with three or more previous depressive episodes, currently in full or partial remission and treated with mADM for a minimum period of 6 months were included. Participants were randomly allocated to MBCT with discontinuation of mADM or MBCT+mADM in trial 1 (N=249) or to mADM+MBCT or mADM in trial 2 (N=68). The primary outcome was depressive relapse, secondary outcomes were depression severity and quality of life.

**Results:** In RCT 1, intention-to-treat analyses showed that 69/128 participants in the MBCT+discontinuation group (54%) and 47/121 in the MBCT+mADM group (39%) experienced a relapse/recurrence (hazard ratio (HR)=1.59, 95% CI 1.10–2.31,  $P=0.01$ ). Notably, 46/67 (69%) of patients who discontinued per-protocol and in 30/67 (45%) of patients who continued per-protocol relapsed (HR= 1.59, 95% CI 1.01–2.51,  $P=0.05$ ). In contrast, groups did not differ in depression severity or quality of life during follow-up.

In RCT 2, intent-to-treat analyses showed that relapse rates did not differ between the groups, 12/33 (36%) in mADM+MBCT and 13/35 (37%) in mADM (HR=0.87, 95% CI 0.40–1.90,  $p=.72$ ). Also, secondary outcomes did not differ between the groups.

**Conclusion:** Discontinuation of mADM after MBCT was associated with higher relapse risk, but not with a less favorable course of depression severity or quality of life. In a slightly different sample of patients who preferred to continue their medication, MBCT did not have an additional protective effect over and above mADM. Possible explanations and implications of these findings are explored. Future directions will also be outlined, including more recent work on supporting patients to taper antidepressants more carefully, and the development of follow-up interventions after MBCT that aim to cultivate self-compassion.

### **Cognitive Control Training in Remitted Depressed Patients: A Randomized Controlled Trial**

**Ernst Koster, Jasmien Vervaeke & Kristof Hoorelbeke, Ghent University, Belgium**

Even after successful remission of depression, patients oftentimes still experience residual cognitive complaints such as problems with attention, concentration and memory. These problems frequently interfere with daily tasks and professional functioning. In the last decade there has been a growing interest in cognitive remediation in remitted depressed individuals (RMD). In the current study we examined an online gamified cognitive control training based on the adaptive Paced Serial Addition Task (PASAT).

In this study 68 RMD were randomized to either the aPASAT condition where cognitive control was trained for two weeks spread across 10 daily sessions, or an active control condition that consisted of a speed-of-response task with equal amounts of training. Depressive complaints, rumination, and resilience were monitored before and after training and at 36 month follow-up. The trial was preregistered at [clinicaltrials.gov](https://clinicaltrials.gov) (identifier: NCT03278756).

Results of this trial will be presented at the conference.

## **Sustainable Effects of Psychological Interventions in Depression: The Effectiveness of Preventive Cognitive Therapy**

**Claudi Bockting, University of Amsterdam, the Netherlands**

**Nicola Klein, University of Groningen, the Netherlands**

Sustainable effects of psychological interventions in depression: the effectiveness of Preventive Cognitive Therapy

A crucial part of the treatment is the prevention of relapse and recurrence. Sequential cognitive interventions after remission, especially Mindfulness Based Cognitive Therapy (MBCT) and Preventive Cognitive Therapy (PCT) are helpful in preventing relapse and recurrence in recurrent depression. An overview will be given of the effectivity and cost-effectivity of PCT as studied in five Randomised Controlled Trials (Bockting et al., 2018, 2005, Klein et al., 2019, 2018 Biesheuvel-Lelieveld 2017, de Jonge et al., 2019 accepted). Specific ingredients of PCT will be discussed and demonstrated as well as face to face PCT, tele-PCT, guided self help-PCT in primary care and guided internet-based PCT. Specific attention will be paid to the evidence for PCT as alternative for longterm use of antidepressants and the implications for pregnant women that use antidepressants as studied in a micro-randomized Controlled Trial (Bockting et al., 2018, Brouwer et al., under review). Clinical and research implications will be discussed.

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## **The Clinical Role of Wellbeing Therapy**

**Convenor: Giovanni Fava, State University of New York at Buffalo, USA**

**Chair: Thomas Heidenreich, Hochschule Esslingen, Germany**

### **The Clinical Role of Wellbeing Therapy**

**Giovanni Fava, State University of New York at Buffalo, USA**

to consult the abstract, please see Invited Addresses section

## **What Is the Specific Role of Well-Being Therapy in the Existing Landscape?**

**Eva-Lotta Brakemeier, Philipps-University of Marburg, Germany**

The talk will assess the specific role of Well-Being Therapy (WBT) in the existing psychotherapy landscape.

First it is emphasized that the therapy was developed as second- or third-line therapy (and not as first-line therapy). Thus, WBT should primarily contribute to the achievement of remission or recurrence prevention as a pathway after acute therapy, so that WBT can be very well combined with KVT.

In direct comparison to Cognitive Behavioral Therapy (CBT), there are many similarities, especially the inclusion of proven and evidence-based strategies of CBT, the basic transdiagnostic idea as well as the understanding that therapy should always help people to help themselves. The objective of both therapies, however, is diametrically opposed: instead of minimizing the suffering and the symptoms as in CBT, WBT focuses on observing and maximizing a balanced sense of well-being. The philosophical, growth-oriented, existential basis also distinguishes WBT from CBT.

In the lecture further comparisons between WBT and other psychotherapies (especially certain so-called "third wave therapies" as well as other methods of positive psychology) will be made, whereby the similarities and differences (crossroads) will be worked out according to the congress motto. Based on this, a summarizing evaluation of the WBT with regard to the possibilities and limits of this approach is finally carried out.

## **The Clinical Assessment of Psychological Well-Being**

**Jenny Guidi, University of Bologna, Italy**

Assessment of psychological well-being generally relies on self-rating scales that address positive emotions (e.g., WHO-5, Symptom Questionnaire) or dimensions such as autonomy, environmental mastery, self-acceptance, positive relations with others, scope of life, personal growth (e.g., Psychological Well Being Scales). In a clinical evaluation, however, it is difficult to extrapolate the importance of these dimensional scores in the overall judgment of the patient. Very little has been done in terms of semi-structured research interviews or observer rated scales. The aim of this presentation is to outline the assessment strategies that, within clinical interviewing, may allow determination of a state of euthymia, defined according to the criteria developed by Fava and Bech (2016): (a) lack of mood disturbances that can be subsumed under diagnostic rubrics; (b) the subject feels cheerful, calm, active, interested in things and sleep is refreshing or restorative; (c) The subject displays balance and integration of psychic forces (flexibility), a unifying outlook on life which guides actions and feelings for shaping future accordingly, and resistance to stress (resilience and anxiety- or frustration-tolerance).

Clinical assessment is aimed to exploring the presence of positive affects and psychological well-being, as well as their interactions with the course and characteristics of symptomatology. For analyzing these tools in an integrative clinimetric perspective encompassing staging and macroanalysis will be used.

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### **Something Old, Something New, Something Borrowed, Something Blue: Clinical Trials on Novel Interventions Targeting Positive Mental Health in Treatment Against Depression**

**Convenor: Nicole Geschwind, Maastricht University, the Netherlands**

**Chair: Nicole Geschwind, Maastricht University, the Netherlands**

**Discussant: Nicole Geschwind, Maastricht University, the Netherlands**

### **Augmented Depression Treatment (ADepT) Compared to Traditional Cognitive Behavior Therapy (CBT) in the Treatment of Depression: Interim Results of a Pilot Randomized Controlled Trial**

**Barney Dunn, Emily Widnall, Faith Warner & Laura Warbrick, University of Exeter, United Kingdom**

Background:

While existing psychological treatments for depression are effective for many, a significant proportion of depressed individuals do not respond to current approaches and few remain well over the long-term. Anhedonia (a loss of interest or pleasure) is a core symptom of depression which predicts a poor prognosis but has been neglected by existing treatments. Augmented Depression Therapy (ADepT) has been co-designed with service-users to better target anhedonia alongside other features of depression. We are midway through a mixed methods pilot trial aiming to establish proof of concept for ADepT and to examine the feasibility and acceptability of a future definitive trial evaluating the clinical and cost-effectiveness of ADepT, compared to an evidence-based mainstream therapy (Cognitive Behavioural Therapy; CBT) in the acute treatment of depression, the prevention of subsequent depressive relapse, and the enhancement of wellbeing. Here we will provide an overview of the ADepT approach and present interim analyses of outcomes at the 6m (post-acute treatment) assessment.

Methods:

We recruited 82 clinically depressed participants, predominantly from high intensity therapy waiting lists from Improving Access to Psychological Therapy Services in the UK. A majority of the sample met criteria for chronic, treatment resistant depression. Participants were randomized 1:1 to receive ADepT (15 weekly acute and 5 booster sessions in following year) or CBT (20 weekly acute sessions). Clinical and health economic assessments have been completed at intake and six-month assessment, with 12m and 18m follow-up assessments ongoing. Reductions in PHQ-9 depression severity and increases in WEMWBS wellbeing at six-month assessment (when acute treatment should be completed) are the co-primary outcomes.

Results:

We were able to recruit to time and target and to collect a high proportion of outcome data. Participants in both arms found treatment acceptable and a majority completed a minimum acceptable dose. The ADepT arm resulted in large intake- to 6m- effect sizes on key outcome measures. While pilot trials of this nature are not a priori powered to demonstrate statistical superiority of one treatment over another, on all outcome variables ADepT has numerically out-performed CBT, with higher rates of reliable recovery (no longer scoring in caseness for anxiety and depression and showing reliable improvement in depression) and a greater repair of anhedonia and wellbeing. Preliminary health economic evaluation suggests ADepT may also be cost-effective relative to CBT.

Discussion:

These results suggest ADepT has promise as a treatment of depression and is potentially worthy of definitive trial evaluation.

### **CBT and Positive Psychology Interventions for Clinical Depression: Outcomes at 6 months and 2 years**

**Carmelo Vazquez, Complutense University, Spain**

**Covadonga Chaves, Francisco de Vitoria University, Spain**

**Irene Lopez-Gomez, Rey Juan Carlos University, Spain**

**Gonzalo Hervas, Complutense University, Spain**

Follow-up studies of clinical positive interventions are scarce in the literature. This presentation shows data from a 6-month and 2-year longitudinal study comparing the efficacy of a manualized protocol of empirically-validated positive psychology interventions (PPI) -see details of the protocol in Chaves et al., 2019- with a cognitive-behavioral therapy (CBT) protocol. This controlled clinical trial initially included 128 adult women with a DSM-IV diagnosis of major depression or dysthymia diagnosed with the SCID (Structured Clinical Interview for the DSM-IV (First et al., 1996). The mean baseline depressive symptoms score measured using the BDI-II was 36.04 (SD = 10.40), indicating severe depression (Beck et al. 1996). Participants were blindly allocated to a 10-session PPI (n = 62) or CBT (n = 66) group therapy condition.

Intention to treat analysis (ITT) showed that both interventions were similarly efficacious in reducing clinical symptoms and increasing well-being. Also, as published elsewhere (Chaves et al., 2017), at the end of the treatment there were no significant differences between groups in either main outcomes (i.e., severity of depressive symptoms and clinical diagnosis) or secondary outcomes (e.g., positive and negative affect, and satisfaction with life). Interestingly, both treatments were associated to significant changes in attentional patterns toward emotional stimuli in an eye-tracking study (Vazquez et al., 2018).

Patients were assessed twice, on the main outcomes, 6 months and 2 years after finishing their respective treatments. At follow-ups, there was a high rate of retention of patients to be evaluated (i.e. 88.2% of all patients who completed the pre-post assessment). ITT showed that, in terms of clinical outcomes, 53%-59% of patients were not clinically depressed anymore at the end of treatment, at 6 months or 2 years later. There were no significant differences between treatments or among the three assessments. Also, a series of ANOVAs showed that improvements in symptoms (BDI-II) and general well-being (Pemberton Happiness Index) were maintained over time. Trajectory analyses also confirmed this general pattern.

Our study shows that positive interventions can have sustainable effects in clinical depression and seem to be at least as efficacious as gold-standard protocols as the CBT. The implications of these promising results for the clinical field, as well as the limitations of the study, will be discussed.

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### **Positive CBT in the Treatment of Major Depressive Disorder: A Randomized Order Within-Subject Comparison with Traditional CBT**

**Fredrike Bannink, Owner Therapy, Training, Coaching and Mediation Practice, the Netherlands**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

**Frenk Peeters & Emke Bosgraaf, Maastricht University, the Netherlands**

**Background and objectives:** Previous research suggests that a stronger focus on positive emotions and positive mental health may improve the efficacy of Cognitive Behavioral Therapy (CBT). Two strategies may be used simultaneously to enhance an explicit and systematic focus on positive emotions and positive mental health within a CBT framework. A first strategy is to change the paradigm of CBT through integration with solution-focused brief therapy, such that the content of therapy is aimed at structurally and persistently reinforcing attention to positive features, both during sessions as well as in homework exercises. A second strategy is to address themes such as optimism and well-being explicitly during treatment, through integrating traditional CBT with positive psychology interventions. Both strategies are integrated in positive CBT (Bannink, 2012).

**Objectives of the research** were to compare differential improvement of depressive symptoms (primary outcome), positive affect, and positive mental health indices during positive CBT versus traditional, problem-focused CBT for major depressive disorder.

**Method:** Forty-nine patients with major depressive disorder (recruited in an outpatient mental health care facility specialized in mood disorders) received two treatment blocks of eight sessions each (cross-over design, order randomized). In addition to collecting quantitative data, we collected qualitative data by conducting in-depth interviews with the first twelve individuals, and observing treatment trajectories and supervision sessions. To analyze the quantitative data, we used mixed regression modelling. We also calculated clinically significant change per treatment and per phase. To analyze the qualitative data, we adopted a constructivist grounded theory approach. This approach blends inductive (bottom-up) data collection with theory-driven (top-down) interpretation.

**Results:** Intention-To-Treat mixed regression modelling indicated that depressive symptoms improved similarly during the first, but significantly more in positive CBT compared to traditional CBT during the second treatment block. Rate of improvement of the less-frequently measured secondary outcomes was not significantly different. However, positive CBT was associated with significantly higher rates of clinically significant or reliable change for depression, negative affect, and happiness. Effect sizes for the combined treatment were large (pre-post Cohen's  $d=2.71$  for participants ending with positive CBT, and 1.85 for participants ending with traditional CBT). Positive affect, optimism, subjective happiness and mental health reached normative population averages after treatment. Analysis of the qualitative data indicated that most clients were sceptic about positive CBT at the start of the treatment. Despite this initial skepticism, clients afterwards preferred positive CBT and indicated experiencing a steeper learning curve during positive, compared to traditional, CBT for depression.

**Conclusion:** Overall, findings suggest that positive CBT: 1) efficiently counters major depressive symptoms, 2) leads to more clinically significant change than traditional CBT, and 3) is favored over traditional CBT by clients with moderate to severe and largely treatment-resistant depression. Future research is needed to investigate follow-up and relapse-prevention effects.

### **Promoting Eudaimonic Well-Being in Older Adults: Results of a Six-Month Follow-up Trial**

**Chiara Ruini, University of Bologna, Italy**

**Elliot Friedman, Purdue University, USA**

**Carol Ryff & Gayle Love, University of Wisconsin, USA**

**Background and Aims:** Eudaimonic well-being (EWB) has been increasingly recognized as a critical component of health and mental health. However, it typically declines in later life, and there are no existing programs to sustain or increase EWB in older adults. Lighten UP! is an 8-week program to promote EWB through facilitated group sessions in community settings and at-home practice. The aim of the present study assessed is to evaluate the effect of the Lighten UP! Program using a longitudinal, multi-site design in addressing depression and well-being in community dwellers

**Methods.** Men and women ( $N = 169$ ) aged 60 and over were recruited from three Wisconsin communities. EWB, life satisfaction, depression, anxiety and diverse aspects of health (sleep complaints and somatization) were assessed before and after the program and at 6-month follow up. The protocol consisted of 8 classes, where participants were asked to identify sources of well-being from their life histories, as well as obstacles to current well-being, such as functional impairments. Lighten UP! also addresses automatic thought processes related to positive psychological experiences rather than the more typical negative thought processes that underlie depression or anxiety. **Results.** Participants reported significantly increased EWB and lower levels of depression; these changes were maintained 6 months later. Participants with lower levels of life satisfaction and poorer sleep at baseline benefited the most from the intervention. The specific EWB domains of self-acceptance, positive relations, and personal growth showed the most robust improvements after intervention.

**Conclusions.** Programs that sustain or enhance EWB in older adults can yield improvements in depression and in diverse aspects of mental and physical health. The Lighten UP! Program confirmed its positive effects for enhancing EWB and addressing depression in older adults living in multiple community settings, with long lasting benefits.

## **Mechanisms of Change in Cognitive-Behavioral Treatment for Depression**

**Convenor: Juan Martín Gómez Penedo, University of Bern, Switzerland**

**Chair: Martin grosse Holtforth, University of Bern and Universitätsspital Bern, Switzerland**

**Discussant: Stefan G. Hofmann, Boston University, USA**

### **Post-Treatment Discrepancy Between Implicit and Explicit Negative Self-Associations as Predictor of Long-Term Outcome After Cognitive Therapies for Depression**

**Martin grosse Holtforth, University of Bern and Universitätsspital Bern, Switzerland**

**Juan Martín Gómez Penedo, Tobias Krieger & Maria Koditek, University of Bern, Switzerland**

**Aim.** Grounded on the dual-process model of depression, this paper examines the discrepancy between implicit (automatic) and explicit (conscious) negative self-associations (NSA) as potential predictors of long-term outcome in the treatment of depression. The aim of this study was to analyze if the discrepancy between patients' implicit and explicit self-associations (an indicator of fragile or damaged self-esteem) at the end of cognitive therapy for depression might predict the increase of depressive symptom severity and the risk of patient relapse/recurrence during one-year follow-up. **Methods.** For this study, we drew on data of a randomized controlled trial (grosse Holtforth et al., 2017) in which 122 patients with depression were assigned to two versions of cognitive-behavioral therapy. To measure implicit and explicit NSA after treatment termination, the patients completed the Implicit-Association Test [IAT] as well as a self-report questionnaire with the same item contents, respectively. In addition, patients completed the BDI at post-treatment as well as at 3-, 6-, and 12-month follow-up. To identify if patients fulfilled criteria of a major depression, trained research assistants conducted interviews using the SCID-I at the same time points. We first ran three-level models analyzing the main and interactive effects of several NSA parameters predicting depression severity level at the end of follow-up and its evolution during follow-up. The NSA parameters were (i) implicit and explicit NSA, and (ii) the degree and direction of the discrepancy between implicit and explicit NSA (i.e., how large the difference is, and if the discrepancy was greater for explicit than for implicit NSA, or vice versa). Then, we ran two-level models estimating the risk of patient relapse/recurrence during follow-up as a function of the same predictors. **Results.** We found significant interactive effects of implicit and explicit NSA predicting the risk of relapse after treatment. Whereas patients with similarly high explicit and implicit NSA or with similarly low explicit and implicit NSA presented a lower risk of relapsing (.12/.13), patients with low explicit NSA and high implicit NSA, or patients with low implicit NSA and high explicit NSA presented greater risk of relapsing (.69/.55). Furthermore, we found significant interactive effects of both, the degree of discrepancy and the direction of the discrepancy on BDI scores at the end of follow-up as well as on the rate of change during follow-up. A higher absolute discrepancy combined with greater explicit NSA was associated with higher levels of severity in BDI at the end of follow-up, as well as with a greater increase of BDI during that period. However, there was no significant interactive effect of degree of discrepancy by direction of the discrepancy on the likelihood of relapsing/having a recurrence during follow-up. **Discussion.** The results of the current study support the discrepancy between implicit and explicit negative self-esteem as a potential vulnerability for relapse after effective cognitive treatments for depression.

### **Common and Differential Mechanisms of Change in Cognitive-Behavioral Therapy and Exposure-Based Cognitive Therapy for Depression**

**Juan Martín Gómez Penedo, University of Bern, Switzerland**

**Martin grosse Holtforth, University of Bern and Inselspital, Switzerland**

**Tobias Krieger, University of Bern, Switzerland**

**Michael J. Constantino & Alice Coyne, University of Massachusetts, USA**

**Aim.** In a recent RCT, grosse Holtforth and colleagues (2017) compared Exposure-Based Cognitive Therapy (EBCT) with Cognitive-Behavioral Therapy (CBT) for depression. The authors found that both treatments were highly effective and that the results were stable after 12-month follow-up. However, there were no significant differences between conditions on the outcome after treatment termination or during the follow-up period. The aim of the current study is to identify differential processes and mechanisms of long-term outcome in both EBCT and CBT. **Methods.** We are going to draw on the data from grosse Holtforth et al. (2017) RCT, in which 149 patients diagnosed with major depression were randomized to either 22 sessions of EBCT or CBT. After each session, patients completed measures of emotional processing (EP) and cognitive restructuring (CR). Furthermore, they completed the Beck depression inventory and measures of different potential mechanisms of change (i.e. cognitive-behavioral avoidance [CBA], emotion-regulation [ER], negative mood regulation, self-efficacy, self-compassion, among others) at post-treatment, and after 3-, 6-, and 12-month follow-up. For the statistical analysis, we first ran parallel mediational models, including EP and CR as mediators of effect treatment condition. Second, we ran hybrid mixed models identifying which of the eventual mechanisms present significant within-patient effects on BDI scores during follow-up (when controlling for between-patients effects). Third, we ran parallel and sequential mediation analyses, including as a first step EP and CR as potential mediators of treatment-condition effects, and as a second step as mediators those mechanisms that present a significant effect on BDI scores during follow-up. **Results.** We found significant mediational effects of treatment condition on long-term outcome by EP and CR (both when estimating BDI change during follow-up and level and the end of follow-up). Patients treated with EBCT had a greater level of EP within-sessions; whereas patients treated with CBT had a greater in-session level of CR. Higher levels of both EP and CR were associated with better long-term outcome. The hybrid models showed significant within-patient effects of both CBA and ER on BDI scores. Finally, the parallel and sequential mediational models showed a significant indirect effect of treatment via EP and ER. Additionally, the indirect effect of treatment via CR and CBA approached significance. **Discussion.** The results supported the hypothesis of parallel mediational effects of EP and CR, as well as mediation of these indirect effects by ER and CBA. These findings might help to improve CBT and EBCT for depression by targeting the observed processes and mechanisms of change.

### **Beyond Simplification: Understanding the Onset and Maintenance of Common Mental Health Disorders Using a Complexity Approach**

**Claudi Bockting, University of Amsterdam, the Netherlands**

Common mental health disorders (depressive and anxiety disorders) are a worldwide epidemic and there is no evidence that the epidemic is subsiding. Depression is a major contributor to the overall global burden of disease (WHO). Globally, more than 300 million people suffer from depression. Psychological and pharmacological treatments are effective treatments but only for half of treated patients. Further, relapse rates in depression after remission are unacceptably high. Evidence for leading theories that explain the onset and maintenance of depression is fragmented. Whereas, depression is seen as a disorder that is caused by interplay of mental-, biological, stress related- and societal factors

that can change over time characterised by large individual differences. One of the main research challenges is to understand the causal interplay between these factors in order to explore new targets for prevention and treatment. Complexity modelling has been successfully applied in other fields of science. In this presentation a multidisciplinary project will be presented on how complexity modelling tools successfully can be applied and explored to understand the onset and maintenance of common mental health disorders like depression in order to explore new targets for prevention and treatment.

### **Chronic Depression: a Therapeutic Challenge Approached from Different Angles**

**Convenor: Jan Philipp Klein, University of Lübeck, Germany**

**Chair: Elisabeth Schramm, University of Freiburg, Germany**

### **Schema Therapy in the Treatment of Chronic Depression: A Single Case Series Study**

**Fritz Renner, University of Freiburg, Germany**

**Robert DeRubeis, University of Pennsylvania, USA**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

**Frenk Peeters & Jill Lobbestael, Maastricht University, the Netherlands**

**Marcus Huibers, VU University Amsterdam, the Netherlands**

Chronic depression is often rooted in adverse childhood experiences and comorbid personality pathology is common. Schema therapy is an integrative treatment approach to chronic lifelong problems with a focus on childhood experiences and personality pathology. While the initial focus of schema therapy treatment trials has been on personality disorders, there is emerging evidence that schema therapy might also be a viable treatment option for chronic depression. The first part of the talk will provide an overview of the empirical data supporting the effectiveness of schema therapy for chronic depression focussing on a case-series of 25 patients with chronic depression. The second part focusses on an explorative analysis of two potential mechanisms of symptom change in schema therapy: change in maladaptive schemas and the therapeutic alliance. Focusing on repeated assessments within-individuals, we tested whether change in schemas and therapeutic alliance preceded, followed, or occurred concurrently with change in depressive symptoms. Contrary to what would be expected based on theory, our findings suggest that change in schemas does not precede change in symptoms. Instead, change in these variables occurs concurrently. Clinical and research implications will be discussed in the symposium.

#### **Literature**

• Renner, F., DeRubeis, R. J., Arntz, A. R., Peeters, F. P. M. L., Lobbestael, J., & Huibers, M. J. H. (2018). Exploring mechanisms of change in schema therapy for chronic depression. *Journal of Behavior Therapy and Experimental Psychiatry*.

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• Renner, F., Arntz, A., Peeters, F. P. M. L., Lobbestael, J., & Huibers, M. J. H. (2016). Schema therapy for chronic depression: Results of a multiple single case series. *Journal of Behavior Therapy and Experimental Psychiatry*, 51, 66–73. <https://doi.org/10.1016/j.jbtep.2015.12.001>

• Renner, F., Arntz, A., Leeuw, I., & Huibers, M. (2013). Treatment for chronic depression using schema therapy. *Clinical Psychology: Science and Practice*, 20(2), 166–180. <https://doi.org/10.1111/cpsp.12032>

### **MBCT in the Treatment of Chronic Depression: A Randomized Controlled Trial**

**Mira Cladder-Micus, Anne Speckens, Janna Vrijzen, Rogier Donders, Eni Becker & Jan Spijker, Radboud University Nijmegen, the Netherlands**

**Background:** Chronic and treatment-resistant depressions pose serious problems in mental health care. Mindfulness-based cognitive therapy (MBCT) is an effective treatment for remitted and currently depressed patients. It is, however, unknown whether MBCT is effective for chronic, treatment-resistant depressed patients. **Method:** A pragmatic, multicenter, randomized-controlled trial was conducted comparing treatment-as-usual (TAU) with MBCT + TAU in 106 chronically depressed outpatients who previously received pharmacotherapy ( $\geq 4$  weeks) and psychological treatment ( $\geq 10$  sessions). **Results:** Based on the intention-to-treat (ITT) analysis, participants in the MBCT + TAU condition did not have significantly fewer depressive symptoms than those in the TAU condition ( $-3.23$  [ $-6.99$  to  $0.54$ ],  $d=0.35$ ,  $P=0.09$ ) at posttreatment. However, compared to TAU, the MBCT+TAU group reported significantly higher remission rates ( $P = 0.04$ ), lower levels of rumination ( $-3.85$  [ $-7.55$  to  $-0.15$ ],  $d = 0.39$ ,  $P = 0.04$ ), a higher quality of life ( $4.42$  [ $0.03$ – $8.81$ ],  $d = 0.42$ ,  $P = 0.048$ ), more mindfulness skills ( $11.25$  [ $6.09$ – $16.40$ ],  $d = 0.73$ ,  $P < 0.001$ ), and more self-compassion ( $2.91$  [ $1.17$ – $4.65$ ],  $d = 0.64$ ,  $P = 0.001$ ). The percentage of non-completers in the MBCT + TAU condition was relatively high ( $n = 12$ , 24.5%). Per-protocol analyses revealed that those who completed MBCT + TAU had significantly fewer depressive symptoms at posttreatment compared to participants receiving TAU ( $-4.24$  [ $-8.38$  to  $-0.11$ ],  $d = 0.45$ ,  $P = 0.04$ ). **Conclusion:** Although the ITT analysis did not reveal a significant reduction in depressive symptoms of MBCT + TAU over TAU, MBCT + TAU seems to have beneficial effects for chronic, treatment-resistant depressed patients in terms of remission rates, rumination, quality of life, mindfulness skills, and self-compassion. Additionally, patients who completed MBCT showed significant reductions in depressive symptoms. Reasons for non-completion should be further investigated.

### **CBASP in the Treatment of Chronic Depression: Long-Term Results from a Randomized Controlled Trial**

**Elisabeth Schramm, University of Freiburg, Germany**

Chronic depression is a severely impairing mental disorder. However, evidence on the long-term efficacy of psychotherapeutic approaches is scarce.

We evaluated the effects of the Cognitive-Behavioral Analysis System of Psychotherapy (CBASP) compared with supportive therapy (SP) 1 and 2 years after treatment termination in a multicenter, evaluator-blinded, randomized clinical trial of outpatients with early onset chronic major depression ( $n=268$ ). The initial treatment included 32 sessions of CBASP or SP over 48 weeks. Primary outcome was rate of ‘well weeks’ (no/minimal symptoms) recalled after one and two years. Secondary outcomes were among others clinician and self-rated depressive symptoms, response/remission rates, and quality of life.

Of 268 randomized patients, 207 (77%) participated in the follow-up. In the intention-to-treat analysis, CBASP patients had a 26% higher chance of experiencing well weeks in the two years after treatment than SP patients (CBASP: mean [SD] of 48.6 [36.9] weeks; SP: 39.0 [34.8]; rate ratio 1.26, 95%-CI 0.99-1.59,  $p=.057$ ,  $d=0.18$ ), not reaching statistical significance. Remission rates showed no significant difference (CBASP: 1-year 40%, 2-year 40.2%; SP: 1-year 28.9%, 2-year 33%). Significant effects are in favor of CBASP one year, but not two years after termination regarding rate of well weeks, self-rated depressive symptoms and depression-related quality of life.

We concluded that chronically depressed patients treated with CBASP tend to display a more favorable long-term course one year, but not two years after treatment termination compared with SP. Nevertheless, the low remission rates suggest the need of personalized therapy regimens for chronic depression.

### **CBASP in the Treatment of Chronic Depression: Treatment Moderators in a Randomized Controlled Trial**

**Jan Philipp Klein, Nele Assmann & Ulrich Schweiger, University of Lübeck, Germany**

**Levente Kriston, University Medical Center Hamburg-Eppendorf, Germany**

**Elisabeth Schramm, Freiburg University, Germany**

Persistent depressive disorder (PDD) is associated with high rates of comorbid psychiatric disorders, mostly anxiety disorders (AD) and personality disorders (PD). PDD is also often associated with early childhood maltreatment (CM). In three separate analyses, we examined if each of these factors (AD, PD and CM) is moderating the effectiveness of disorder-specific (CBASP) vs. non-specific psychotherapy (supportive therapy, SP) on depressive symptoms (24-item Hamilton Rating Scale for Depression, HRSD-24 after the acute phase treatment at week 20) in a sample of unmedicated early-onset PDD outpatients. We found that AD and CM (but not PD) moderated the effectiveness of CBASP versus SP. The between group effect was largest for patients with comorbid social anxiety disorder (SAD): Cohen's  $d = 0.78$  versus  $d = 0.11$  without SAD. It was also present for CM (particularly emotional abuse:  $d = 0.61$  versus  $d = 0.11$  without childhood emotional abuse). These results need to be confirmed in studies comparing CBASP to other forms of psychotherapy. If confirmed, these results imply that CBASP is most effective in patients with early-onset PDD who are comorbid with social anxiety disorder or retrospectively report childhood emotional abuse.

### **New Ways to Improve and Understand the Effectiveness of Contemporary Cognitive Behavioral Therapy (CBT) and Interpersonal Psychotherapy (IPT) for Depression: Results from Two Large-Scale Randomized Trials**

**Convenor: Lotte Lemmens, Maastricht University, the Netherlands**

**Chair: Frenk Peeters, Maastricht University Medical Centre, the Netherlands**

**Discussant: Robert DeRubeis, University of Pennsylvania, USA**

#### **(Long-term) Outcomes of Acute Treatment with CT vs. IPT for Adult Depression: Results of a Randomized Controlled Trial**

**Lotte Lemmens, Suzanne van Bronswijk & Frenk Peeters, Maastricht University, the Netherlands**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

**Anne Roefs, Maastricht University, the Netherlands**

**Steven Hollon, Vanderbilt University, USA**

**Robert DeRubeis, University of Pennsylvania, USA**

**Marcus Huibers, Vrije Universiteit Amsterdam, the Netherlands**

Background: The effectiveness of Cognitive Therapy (CT) and Interpersonal Psychotherapy (IPT) for Major Depressive Disorder (MDD) is well-established. However, it is not clear yet whether one therapy outperforms the other with regard to course and severity of the disorder, especially in the long term. Recently we conducted the first (up-to-date) RCT in which we examined both acute- and long-term effects of CT vs. IPT for MDD.

Methods: 182 adult depressed outpatients were randomized to CT ( $n = 76$ ), IPT ( $n = 75$ ) or a 2-month waiting-list control (WLC) condition followed by treatment of choice ( $n = 31$ ). We first tested whether active treatment was superior to no treatment. After that we examined whether one of the active treatments was superior in reducing depressive symptoms, at the end of the 7-month treatment phase (acute outcomes), and across a 17-month follow-up period (7-24 months). Analyses were conducted for the entire sample, as well as for various subgroups of patients. In addition, for treatment responders, we examined rates relapse, in terms of both self-reported (BDI-II) as well as clinician-rated (LIFE) depression severity.

Results: CT and IPT were both superior to a waiting-list control condition over the first two months of treatment and did not differ from another across the rest of the 7-month treatment phase. The symptom reduction that was achieved during treatment was maintained across follow-up (7 – 24 months) for CT and IPT, both in the total sample and in the responder sample. Two thirds (67%) of the treatment-responders did not relapse across the follow-up period on the BDI-II. Relapse rates assessed with the LIFE were somewhat lower. No overall differential effects between conditions were found.

Conclusions: Patients who responded to IPT were no more likely to relapse following treatment termination than patients who responded to CT. Given that CT appears to have a prophylactic effect following successful treatment, our findings suggest that IPT might have a prophylactic effect as well.

#### **Twice- Versus Once-Weekly Sessions of CBT and IPT for Depression: Results from a Randomized Multicenter Trial**

**Sanne Bruijnks, Vrije Universiteit Amsterdam, the Netherlands**

**Lotte Lemmens, Maastricht University, the Netherlands**

**Steven Hollon, Vanderbilt University, USA**

**Frenk Peeters, Maastricht University, the Netherlands**

**Pim Cuijpers, Vrije Universiteit Amsterdam, the Netherlands**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

**Marcus Huibers, Vrije Universiteit Amsterdam, the Netherlands, and University of Pennsylvania, USA**

Background: Cognitive behavior therapy (CBT) and interpersonal psychotherapy (IPT) are among the most effective treatments for depression, but it is unclear in what session frequency they are most effective. This study compared the effects of once weekly versus twice weekly sessions of CBT and IPT for depression.

Methods: From November 2014 through December 2017, a multicenter randomized trial was conducted in which 200 adult (18-65) depressed patients recruited from nine Dutch specialized mental healthcare centers were randomized into one of the following groups, all receiving a maximum of 20 sessions in different frequencies: a) twice-weekly sessions at the start of CBT ( $n=49$ ), b) twice-weekly sessions

at the start of IPT (n=47), c) once-weekly sessions at the start of CBT (n=49), d) once-weekly sessions at the start of IPT (n=55). Mixed regression was used to determine the course of self-reported depressive symptom severity (BDI-II) during treatment. Results: Compared to patients who received weekly sessions, patients who received twice weekly sessions showed a greater decrease in depressive symptoms, lower attrition rates and an increased rate of response. The effect of session frequency did not differ between CBT and IPT and there was no significant difference between frequency conditions in time to remission. Conclusions: Delivery of twice weekly sessions of CBT and IPT for depression is an efficient way to optimize depression treatment outcomes.

### **A Prognostic Index for Long-Term Outcome After Successful Acute Phase Cognitive Therapy and Interpersonal Psychotherapy for Major Depressive Disorder**

**Suzanne van Bronswijk & Lotte Lemmens, Maastricht University, the Netherlands**

**John Keefe, University of Pennsylvania and Weill Cornell Medical College, USA**

**Marcus Huibers, Free University Amsterdam, the Netherlands, and University of Pennsylvania, USA**

**Robert DeRubeis, University of Pennsylvania, USA**

**Frank Peeters, Maastricht University, the Netherlands**

Background: Major depressive disorder (MDD) has a highly recurrent nature. After successful treatment, it is important to identify individuals who are at risk of an unfavorable long-term course. Despite extensive research, there is no consensus yet on the clinically relevant predictors of long-term outcome in MDD, and no prediction models are implemented in clinical practice. In this presentation, we will focus on a prognostic index (PI), a prediction model that estimates long-term outcomes after successful CT and IPT for MDD.

Methods: Data come from responders to CT and IPT in a randomized clinical trial (n = 85; CT = 45, IPT = 40). Primary outcome was depression severity, assessed with the Beck Depression Inventory II, measured throughout a 17-month follow-up phase. Predictors of long-term outcome were selected using machine-learning approaches and combined in a prediction model. With this model, individual PI scores were calculated.

Results: A total of three post-treatment predictors were identified: depression severity, hopelessness, and self-esteem. Individual PI scores evidenced a strong correlation ( $r = 0.60$ ) with follow-up depression severity.

Conclusions: If replicated and validated, the PI can be implemented to predict follow-up depression severity for each individual after acute treatment response, and to personalize long-term treatment strategies.

### **Does Psychological Process Change During Psychotherapy Predict Long-Term Depression Outcome After Successful CT or IPT? Results from a Randomized Trial**

**Marcus Huibers, Vrije Universiteit Amsterdam, the Netherlands, and University of Pennsylvania, USA**

**Suzanne van Bronswijk, Frank Peeters & Lotte Lemmens, Maastricht University, the Netherlands**

Background: Different types of psychotherapy such as CT and IPT for Major Depressive Disorder (MDD) are equally effective on average, but the processes through which these therapies exert their effectiveness have not been identified in empirical research, despite numerous theories and heated debates. In this paper, we focus on changes in psychological processes during therapy as predictors of long-term depression outcome in treatment responders.

Methods: Data came from a randomized trial comparing Cognitive Therapy (CT, n = 76) and Interpersonal Psychotherapy (IPT, n = 75) for MDD. Primary outcome was depression severity (BDI) at follow-up. Within-therapy change scores (0-7 months) of treatment responders (n = 85) on nine psychological process variables (dysfunctional attitudes, cognitive reactivity, rumination, attributional style, hopelessness, work and social functioning, self-esteem, interpersonal functioning, therapeutic alliance) were associated with long-term outcome (7-24 months) after treatment termination in prediction models.

Results: Seven out of nine process change measures were associated with long-term outcome in univariate analyses. In the multivariate predictor analysis, it was found that a stronger decrease of dysfunctional attitudes in therapy was associated with lower depression scores at follow-up. In the multivariate moderator analysis, it was found that improvement in work and social functioning during therapy is associated with better depression outcomes at follow-up in IPT relative to CT, while worsened functioning is associated with better outcomes in CT relative to IPT. Moreover, functioning change scores had modest predictive value in responders who received CT, but strong predictive value in IPT responders.

Conclusions: Less negative thinking in the course of therapy is associated with less depression in the course of follow-up in CT and IPT, while within-therapy changes in work and social functioning seem particularly important and predictive of outcome in IPT. If replicated, these findings can be used to guide the monitoring of individual progress in psychotherapy.

### **New Research on Personalizing Psychological Treatments — Status Quo and Future Developments**

**Convenor: Wolfgang Lutz, University of Trier, Germany**

**Chair: Wolfgang Lutz, University of Trier, Germany**

#### **Moving Beyond Main Effects to Promote Precision Mental Health**

**DeRubeis Robert, University of Pennsylvania, USA**

Until recently, the primary purpose of randomized clinical trial (RCTs) has been to estimate the relative and absolute magnitudes of change resulting from the treatments tested in the trial. Although trialists have long pursued secondary analyses to identify moderators and mediators of the observed effects, only recently has the field begun to envision and test means of querying data from RCTs with the explicit ultimate goal of developing actuarially-based, person-specific treatment recommendations to patients and providers. To this end, many investigators around the world are now applying sophisticated “machine learning” tools of the kind used in many other fields, including in artificial intelligence. Beginning with a paper we published five years ago, when we coined the term “Personalized Advantage Index” to describe a primitive version of approaches we and others have continued to develop, my team at the University of Pennsylvania, along with U.S. and European collaborators, have pursued the goals of precision mental health in a variety of populations and with a wide range of treatments. In this symposium I will demonstrate the promise of this maturing area of research with illustrative examples from recent applications of these methods.

## **Optimal Designs to Examine Whether Individual Affective Changes Are Clinically Meaningful**

**Claudi Bockting, University of Amsterdam, the Netherlands**

**Laura Bringmann & Nicola Klein, University of Groningen, the Netherlands**

**Nikolaos Batalas, Eindhoven University of Technology, the Netherlands**

**Marieke Wichers, University of Groningen, the Netherlands**

**Aims** Most findings on the effect of CBT rest on data that are aggregated from the individual level to the group level and subsequently statistically tested. This gives important insights on group differences and thereby valuable information on the chance that a specific treatment will be successful. However, a CBT therapist has to decide what treatment is for this specific patient effective. Gathering enough data on the individual level might offer individual short-term prediction of treatment response and might also give us an empirical basis for individual therapeutic decision making on the type of interventions and dosage of specific interventions.

**Methods** In this presentation optimal designs will be discussed to examine whether individual affective changes are clinically meaningful. This will be demonstrated based on the results of a trial that examined the clinical value of individual level data using experience sampling methodology (ESM) in remitted recurrently depressed patients.

**Results** Of the 42 remitted previously depressed participants, 22 subsequently relapsed. The expected increases in negative affect were observed in two cases (5%). None of the previously depressed individuals demonstrated the expected increased negative affective inertia. Decreases in negative affect or negative affective inertia were observed in nine (21%) previously depressed individuals. Five (56%) out of those nine individuals subsequently relapsed.

**Discussion** Results suggest that affective responses while receiving relapse prevention treatments may vary greatly from person to person. Within-individual increases in negative affect were only found in a small proportion (9%) of previously depressed individuals who subsequently relapsed. Moreover, five of the nine individuals that demonstrated decreases in negative affect relapsed later. Implications and potential suitable study designs are discussed to examine the relation between affect dynamics and treatment outcomes.

## **Moving Towards Personalisation by Identifying Active Ingredients of Internet CBT for Depression**

**Edward Watkins, University of Exeter, United Kingdom**

We will describe the background, methodology and preliminary results from the IMPROVE-2 (Watkins et al., 2016) study, which conducts a fractional factorial design to investigate which elements (e.g., thought challenging, activity scheduling, compassion, relaxation, concreteness, functional analysis) within therapist-supported internet CBT are most effective at reducing symptoms of depression in 768 adults with major depression. By using this innovative approach, we can first begin to work out what components within the overall treatment package are most efficacious on average allowing us to build an overall more streamlined and potent therapy. This provides the opportunity to investigate whether particular components work better for particular individuals, moving us towards personalisation within a treatment (i.e., CBT), in contrast to personalisation between treatments.

## **What and When: Predicting the Presence and Timing of Discrete Mood States Prior to Therapy**

**Fisher Aaron, University of California, USA**

**Abstract:** If clinicians could make accurate time-forward predictions of individuals' mood states, they could likely deploy more effective, personalized interventions for mood and anxiety disorders. We present a novel approach to modeling and predicting within-person mood fluctuations over time, using a combination of idiographic latent class analysis (LCA) and machine learning. Forty-five participants with mood and anxiety disorders completed surveys 4 times daily for 30 days; items measured positive and negative emotions, including several mood-relevant psychiatric symptoms (e.g. worry). We applied LCA to each participant's time-series to obtain discrete categories of mood states for each person. In addition, the analysis provides a vector of dichotomous predictions (i.e. presence/absence) for each mood state, at each observation. The modal number of classes was 2 (range = 1–5). Content was idiosyncratic.

We then used a set of temporal variables related to trends, cycles, and recurrent events to locate the timing of each mood state, for each individual. Elastic net regularization was employed to return the unique set of predictors for each individual. The predictive accuracy was assessed via area under the curve (AUC), where values of .50 reflect predictions at chance and a value of 1 indicates perfect prediction. Across 112 mood-state models, this approach yielded a mean AUC of .83—indicating that we predicted mood-state occurrence with 83% accuracy.

## **Towards the Integration of Personalized Intervention Research into Clinical Practice: The Trier Treatment Navigator (TTN)**

**Lutz Wolfgang, Viola Schilling & Anne-Katharina Deisenhofer, University of Trier, Germany**

This talk will give insight into the Trier Treatment Navigator (TTN) – a new computer-based feedback system which has already been implemented in a university outpatient clinic. The system includes pre-treatment decision as well as adaptive decision recommendations. The presentation will focus on the one hand on the research concepts behind the development of the TTN and will discuss on the other hand implementation issues that arise when such personalized feedback systems are applied in routine care.

The development sample consisted of 1234 patients treated with cognitive behavioral therapy (CBT). Modern statistical machine learning techniques were used to develop personalized recommendations.

Drop-out analyses resulted in seven significant predictors explaining 12.0% of variance. The prediction of optimal treatment strategies resulted in differential prediction models substantially improving effect sizes and reliable improvement rates. The dynamic failure boundary reliably identified patients with a higher risk for non-improvement or deterioration and indicated the usage of clinical problem-solving tools in risk areas. The probability to be reliably improved for patients identified as at risk for treatment failure was about half of the probability for other patients (35% vs. 62.15%;  $\chi^2_{df=1} = 82.77, p < .001$ ).

Results related to the TTN will be presented in the context of personalized treatments and future directions. Additionally, the implication for clinical practice as well as clinical training will be discussed.

## **Breaking New Ground: Expanding the Reach of Prevention of Depression in Adolescents**

**Convenor: Patrick Pössel, University of Louisville, USA**

**Chair: Patrick Pössel, University of Louisville, USA**

### **Incremental Cost-effectiveness of Preventing Depression in At-Risk Adolescents**

**Judy Garber, Vanderbilt University, USA**

**John Dickerson & Greg Clarke, Kaiser Permanente Northwest, USA**

**William Beardslee, Harvard University, USA**

**Robin Weersing, San Diego State University, USA**

**David Brent, University of Pittsburgh, USA**

**Tracy Gladstone, Wellesley College, USA**

**Steven Hollon, Vanderbilt University, USA**

**Background:** Adolescent depression is associated with negative personal and economic outcomes for youth and their families. Offspring of depressed parents are at particular risk. Many youth who experience depression do not receive treatment, however. Although some prevention programs have been found to reduce the onset of depression, the utility and wide-spread dissemination of such programs requires that they be affordable to health care systems.

**Objective:** Evaluate the incremental cost-effectiveness over 9 months of a group cognitive-behavioral preventive (CBP) intervention compared to usual care (UC).

**Design:** Cost-effectiveness analysis of a randomized controlled trial comparing CBP to UC.

**Participants:** 316 adolescents ages 13–17 who (a) were offspring of parents with current and/or past depressive disorders, and (b) had a history of a depressive disorder, currently elevated but subthreshold depressive symptoms, or both.

**Intervention:** Participants were randomly assigned to either UC or CBP, which consisted of 8 weekly group sessions followed by 6 monthly continuation sessions.

**Main Outcome Measures:** Outcomes were depression-free days (DFDs) and quality-adjusted life-years (QALYs). Costs of intervention, non-protocol services, and family time investment were included.

**Results:** For the main analysis of all youth, CBP achieved 12 additional DFDs ( $p=.010$ ) and 0.017 more QALYs ( $p=.010$ ) than UC. CBP cost \$591 (SD=286) on average per capita. Additional cost per DFD was \$61 (95% CI: 11-408), \$41,697 per QALY (95% CI: 7,735 – 283,056). Cost-effectiveness acceptability curve analyses indicated a 69% probability that CBP is more cost-effective at a willingness-to-pay of \$50,000 per QALY. For the subgroup of youth whose parent's depression was not current at baseline, the incremental cost-effectiveness of CBP compared to UC was \$11,008 per QALY (95% CI: -6,780-32,744).

**Conclusions:** In a sample of at-risk youth, a brief CB prevention program produced a significantly lower number of days with depression as compared to usual care. The societal cost-effectiveness of the program was comparable to or better than that of many medical services currently covered under most insurance programs. The program is particularly cost-effective for at-risk youth whose parent's depression was not current at baseline.

### **Migration Status, Gender, and the Effects of Depression Prevention: A Cluster-Randomized Control Group Study**

**Patrick Pössel, Jeremy Gaskins & Tao Gu, University of Louisville, USA**

**Martin Hautzinger, University of Tuebingen, Germany**

Adolescent depression is a common and recurrent disorder associated with significant impairment and other forms of psychopathology.

Female and migrant youth are at particular risk. This raises the question if gender and migrant status moderate the effects of depression prevention. We hypothesized that female adolescents benefit more than male adolescents and that migrant adolescents and adolescents from the host country benefit similarly from prevention. The cluster-randomized control group study included 439 eighth grade students (43.5% female, 42.4% migrants) from 23 German secondary schools. Based on their school, adolescents were randomized to a universal cognitive behavioral prevention program (10 weeks during regular school hours, 1 session per week, 90 minutes per session) or school-as-usual.

Assessments were conducted at baseline, post-intervention, and 6 and 12 month follow-ups. From baseline to post-intervention, changes in depressive symptoms were not different between prevention and control condition (males,  $p=0.463$ ; females,  $p=0.861$ ) or between German and migrant youth (males,  $p=0.621$ ; females,  $p=0.190$ ). From baseline to 12 month follow-up, depressive symptoms increased in migrant males relative to German males ( $p=0.038$ ) independent of intervention condition ( $p=0.763$ ). Females in the prevention ( $p=0.017$ ), but not in the control group ( $p=0.041$ ) reported a significant reduction in depressive symptoms. The effects of cognitive behavioral prevention of adolescent depression are not moderated by migrant status but by gender. Generally, this is unproblematic as depressive symptoms in male adolescents usually remain low. However, as migrant males report increasing depressive symptoms, future research on depression prevention in adolescent migrant males is needed.

### **School-based Depression Prevention for Adolescents with Subclinical Symptoms of Depression**

**Kim van Ettehoven & Karlijn Heesen, GGZ Oost Brabant and Erasmus University, the Netherlands**

**Sanne Rasing, GGZ Oost Brabant and Utrecht University, the Netherlands**

**Daan Creemers, GGZ Oost Brabant and Radboud University, the Netherlands**

**Rutger Engels, Erasmus University, the Netherlands**

Depression is one of the most prevalent mental disorders among adolescents, but it is often difficult to observe and therefore not recognized.

Research shows that depressive symptoms often remain unidentified in adolescents, despite knowing adolescence is a life phase where depressive symptoms increase. Given the prevalence, recurrence and detrimental consequences of adolescent depression, it is crucial to implement prevention programs for high-risk adolescents. Prevention programs at an indicated level have shown to be successful in reducing depressive symptoms in adolescents. This project offers high-risk adolescents a school-based prevention program to prevent the onset of depressive symptomatology. In this randomized controlled trial (RCT), we evaluate the (cost)effectiveness of depression prevention when it is fully implemented in regional collaboration between secondary schools, community health service and mental health service.

The preventive strategy consists of a systematic screening by community health service of all adolescents in the second year of secondary education on depressive symptoms. Adolescents with elevated levels of depressive symptoms were randomly assigned to the intervention condition with 'Op Volle Kracht' (translates to 'On Full Power') or the control condition with online psycho-educational information. 'Op



Volle Kracht' (OVK 2.0)' is a group-based prevention program that consists of eight sessions of 60 minutes each, based on techniques of cognitive behavioural therapy. The program will be given by licensed psychologists from mental health service together with the school's social worker or school psychologist as co-trainer. OVK has previously proven to be effective as an indicated prevention program for girls. OVK 2.0 is a modified and more up to date version of the original OVK program. In the psycho-educational condition, adolescents receive a brochure and two e-mails with information and tips for beating their depressive mood.

In total, 130 adolescents in the second grade of 13 secondary schools in the Netherlands were included in the RCT. All participants and their parents will complete assessment at baseline, post-intervention, and 6-, 12- and 24- month follow-up, with 12- and 24-month follow-up still in progress. The adolescents are monitored on several outcomes, including depressive symptoms and diagnosis of depressive disorder.

During this presentation, the procedure for implementing OVK 2.0 in schools, community health service and mental health service will be illustrated and the first preliminary results on effectiveness post-intervention will be presented.

### **An Internet-Based Approach to Preventing Adolescent Depression in Primary Care**

**Trace Gladstone, Wellesley College, USA**

**Benjamin Van Voorhees, University of Illinois at Chicago, USA**

Although 13-20% of American adolescents experience a depressive episode annually, no scalable primary care model for adolescent depression prevention is available. We developed CATCH-IT (Competent Adulthood Transition with Cognitive Behavioral Humanistic and Interpersonal Training), an intervention that uses an Internet-based platform to target adolescents at-risk for depression (i.e., with sub-threshold depressive symptoms and/or prior depressive episode) who are identified in primary care. CATCH-IT uses the media theory of "Synchronization of the Senses" to incorporate character stories and design/picture elements to meet current social media standards, and combines therapeutic modalities (e.g., cognitive-behavioral and interpersonal interventions) in an ecological model. We conducted a two-site (Chicago and Boston, 32 clinics), single-blind individual level randomized trial comparing CATCH-IT (N=15 modules) to a general health education (HE) "attention control" (N=14 modules) on depression onset in adolescents (N=369, 13-18 years old, 46% non-White) over 24 months. In intention-to-treat analyses, the hazard ratio favoring CATCH-IT was not statistically significant at 12 (HR = 0.77, 95% CI, 0.42, 1.40,  $p=0.39$ ) or 24 months (HR = 0.87, 95% CI, 0.52, 1.47,  $p=0.61$ ). In analyses restricted to teens who enrolled with elevated depressive symptoms (N=321), baseline CESD score was a marginally significant moderator ( $p=.05$ ) at 12 months, with CATCH-IT providing greater preventive benefit than HE in adolescents with higher CESD scores. Two additional moderators exhibited preventive benefits for CATCH-IT at 24 months: lower baseline hopelessness scores ( $p<.05$ ), and higher levels of baseline paternal monitoring ( $p<.05$ ). Over time, depressive symptoms scores declined significantly in both groups, and functioning improved in both groups. Results suggest that a technology-based intervention for prevention can be implemented in primary care and may be beneficial over time for adolescents with elevated depressed mood, or with lower levels of hopelessness and higher levels of paternal monitoring.

### **Off To New Horizons: Transnational/Transcultural Adaptations of Adolescent Depression Prevention Programs**

**Convenor: Patrick Pössel, University of Louisville, USA**

**Chair: Patrick Pössel, University of Louisville, USA**

#### **From LARS&LISA to TIM&SARA and Beyond. Cultural Adaptations of a School-Based Universal Prevention Program of Adolescent Depression**

**Patrick Pössel, University of Louisville, USA**

Adolescent depression is a common and recurrent disorder associated with significant impairment and other forms of psychopathology. However, only up to 36% of the burden of depression can be alleviated by therapies, and an additional 21-22% of the burden may be alleviated by preventive efforts. Accordingly, effective programs that reduce currently elevated levels of depressive symptoms and prevent normative increases of depressive symptoms have been developed, and meta-analysis demonstrates the most effective being cognitive-behavioral programs. Many of the currently existing programs have been developed in the United States and are now implemented across the world and in cultural contexts that are different from the ones they were originally developed for. One exception is the originally in Germany developed and evaluated school-based universal prevention program LARS&LISA. Besides multiple evaluation studies in Germany, the program demonstrated to be effective in mainly White youth living in a suburban/rural area in the U.S. Further, it is currently adapted to benefit American Black inner city youth. Besides the general findings of the studies with German and White American suburban/rural adolescents, the presentation will mainly focus on the planned adaptations and the surprising discoveries made when the program was implemented in those three groups of youth.

#### **Translation and Adaptation of the American Family Cognitive Behavioral Prevention Program for German Offspring of Parents with Depression**

**Johanna Löchner, Anca Sfärlea & Kornelija Starman, Ludwig Maximilian University of Munich, Germany**

**Frans Oort, University of Amsterdam, the Netherlands**

**Gerd Schulte-Körne & Belinda Platt, Ludwig Maximilian University of Munich, Germany**

**Introduction:** Depression is one of the most common psychiatric illnesses worldwide, but is nevertheless preventable. One of the biggest risk factors for depression is having a parent who has suffered from depression. A family-cognitive-behavioural-therapy (CBT) group-based prevention program "Raising Healthy Children" (RHC) has shown promising findings in reducing the prevalence of depression in children of depressed parents (Compas et al., 2009). The PRODO study is the first replication of the intervention outside of the research group and in another language and culture (Germany).

**Methods:** The study protocol is reported by Platt et al. (2015; BMC Psychiatry). First, the RHC manual was translated to German and culturally adapted. The German research team and group leaders of the intervention were supervised by Compas and colleagues and the scope of the intervention was discussed in several online meetings. Eligible families were randomly allocated to receive the 12-session CBT intervention ( $n = 50$ ), or no intervention (usual care;  $n=50$ ). Beside the adaptation process we will also present data on the general acceptability of the intervention (qualitative and quantitative data) as well as our experience in adapting a prevention program to another culture. The primary outcome (child diagnosis of depression) is assessed at 15-month follow-up. The secondary outcomes (child psychopathological symptoms) were assessed at post-intervention (6-months), as well as at 9- and 15-month follow-up.

Results: The general acceptability of the program was rated high. The chance to openly share and discuss their experiences of depression within and between families was considered helpful. Children benefitted the most from learning coping strategies for dealing with stress and many still used them in everyday life. We found positive intervention effects at post-assessment on self-rated psychopathological symptoms and maladaptive emotion regulation strategies.

Discussion: Interventions for the children of depressed parents have largely been developed and evaluated in the USA. The German adaptation is a promising intervention to a different language and cultural context and performs the first replication of the intervention outside of the original research group. In doing so, the study provides an important step towards the global goal of developing improved prevention strategies for children at risk of depression.

### **Importing the Blues Indicated Depression Prevention Program for Use in French-Canadian Secondary Schools**

**Frédéric Brière, University of Montreal, Canada**

This talk will focus on efforts by my research group to import the Blues program, an evidence-based cognitive behavioral depression prevention program developed in the United States (Stice et al., 2008, Rohde et al., 2014), for use in French Canadian secondary schools. I will describe how we translated and adapted the program, as well as results of a small scale effectiveness trial that largely replicated results previously observed in the US (Brière et al., 2019). I will also describe a subsequent initiative in which we partnered with school clinicians and knowledge translation experts to develop a variety of implementation tools based on the Wandersman model (2012) to facilitate the dissemination of the program. I will conclude with a discussion of ongoing developments, including a pilot implementation trial aimed at comparing (1) Tools+Training vs. (2) Tools+Training+Technical Assistance models of implementation in two Montreal school districts.

### **Spotlight Focus on Cognitive Therapy for Depression from Lab to Clinic to Applied Settings: The Lifetime Achievements of Professor Steve Hollon**

**Convenor: Jennifer Wild, University of Oxford, United Kingdom**

#### **Steve Hollon: An Impartial Scientist and a Force of Nature**

**David M. Clark, University of Oxford, United Kingdom**

For four decades Steve Hollon has strode like a giant through the field of psychotherapy research. There have been many controversies about the relative efficacy of different interventions (psychological and medication) for depression, both in the short term and the long term. Steve Hollon's constant focus on the scientific method and his impartiality has helped steer the field through these controversies and has greatly enriched our knowledge of the most effective ways to treat the most common mental health problem. Although Steve is now a senior statesman, his infectious enthusiasm is undimmed and there is no sign of him speaking any slower in scientific presentations. He keeps us all on our toes, and vast numbers of patients have benefitted from his research.

#### **Steve Hollon: What Does the Evidence Say?**

**Keith Dobson, University of Calgary, Canada**

Dr. Steve Hollon is known as a “scholar’s scholar”, and an advocate for evidence based practice. His contributions to the field of depression are many, and span several decades. In this presentation, some of the seminal contributions and their importance to the field will be highlighted. Other insights about Dr. Hollon and his approach to his research will be also discussed.

#### **Fearless: Steve Hollon’s Quest to Change the Culture of American Psychology**

**Bethany Teachman, University of Virginia, USA**

Steve Hollon’s contributions to the field of clinical psychology have been transformative in so many ways. In this talk, I focus on the leadership and service roles he has dedicated himself too, noting how his approach is both fearless and selfless. Steve was the founding Chair of the American Psychological Association (APA) Advisory Steering Committee for the Development of Clinical Practice Guidelines for 6 years, a large-scale initiative to have APA generate Clinical Practice Guidelines for the first time in its history. While the UK and many other countries have had guidelines like NICE for decades, so they are widely accepted and integrated into healthcare systems, this is not the case for American psychology. Developing and implementing this process at APA required not only dedication from Steve and the rest of the APA team, but also the vision to thoughtfully and inclusively promote the culture change needed to support the passage of Clinical Practice Guidelines. Steve is fearless in this pursuit because he believes fundamentally that grounding clinical decision-making in science can best reduce the burden of mental illness. He does not shy away from controversy, but instead stands by his principles while simultaneously seeking out opportunities to listen to those with opposing views to find understanding and common cause. Because of his dedication and leadership, APA has now developed and approved its first three Clinical Practice Guidelines. In this talk, I will describe Steve’s work on the APA Clinical Practice Guidelines initiative, including the controversies surrounding the guidelines and ways Steve and others have envisioned advancing future guideline development. As I will outline, in addition to his incredible accomplishments, part of what makes his contributions to the field so impressive is his selfless approach. He rarely accepts credit for his contributions, and routinely looks for ways to advance the careers of more junior scholars. Steve has been on a quest to promote clinical psychological science and clinical psychological scientists, and we are all better for it.

#### **Steve Hollon: Great Friend, Incomparable Mentor and Exemplary Clinical Scientist**

**Robert J. DeRubeis, University of Pennsylvania, USA**

When Steve Hollon arrived at the University of Minnesota in 1977 to interview for a tenure-track position in one of the premier Psychology Departments and Clinical Programs in the United States, his CV listed one publication. Was Minnesota crazy to consider him and then to offer him the position? That hypothesis was ruled out decades ago. In the 40 plus intervening years, during which Steve has published hundreds of thoughtful, influential empirical, theoretical, and policy papers, he has surely left his mark in our journals and our handbooks. But his impact extends far beyond those papers, through his formal and informal mentorship of young clinical scientists around the world, and his strong, courageous leadership. A few examples of Steve's unwavering humility and integrity and his commitment to the very best clinical science will be highlighted with an emphasis on works and deeds that have fostered the careers of his mentees and junior colleagues, and served as a beacon for all of us.

## **Symposia 11: Eating Disorders**

### **Prevention and Early Intervention for Eating Disorders and Transdiagnostic Outcomes: Targeting Body Image Concerns and Unhelpful Perfectionism in Young People**

**Convenor: Melissa Atkinson, University of Bath, United Kingdom**

**Chair: Melissa Atkinson, University of Bath, United Kingdom**

#### **Combating Disordered Eating and Poor Body-Image with the Use of Imagery Rescripting (IR) Among Body-Dissatisfied Young Women**

**Yuan Zhou & Tracey Wade, Flinders University, Australia**

Imagery rescripting (IR) has been widely used to treat various mental health problems, however, little is known about its usefulness in the area of eating disorders. A previous study suggested that a body-specific IR approach which rescripted negative body experience specific to disordered eating had a stronger effect on decreasing disordered eating and increasing body acceptance than a cognitive dissonance intervention among body-dissatisfied young women (Pennesi & Wade, 2018). The current study directly compared this approach with a general IR approach, which focused on general negative events that are not specific to the body or disordered eating. Young body-dissatisfied women who demonstrated an elevated risk of developing an eating disorder were randomly assigned to one of the four conditions, body-specific IR, general IR, a psychoeducation control that explained why regular eating was important, and a control group where participants were instructed to do nothing. All participants received a brief intervention in the lab, and those who were in the IR conditions practised IR for five minutes each day for a week. Disordered eating behaviours and body acceptance were measured at baseline and 1-week follow up. Preliminary results suggested that compared with body-specific IR, general IR resulted in larger effect size increases of body acceptance and decreases of disordered eating behaviours among participants. These findings provided preliminary support for general IR as a superior intervention to reduce risks for the development of an eating disorder. Future study will investigate the use of general IR as an adjunct treatment for eating disorders, especially anorexia nervosa.

#### **The Relationship Between Perfectionism and Academic Achievement: A Meta-Analytic Review**

**Ivana Osenk & Tracey Wade, Flinders University, Australia**

**Objective:** Significant gaps in the literature remain in the field of perfectionism literature, whereby a clearer understanding of the construct of perfectionism is needed. The current study provides a meta-analytic review to examine the differential impact of perfectionistic concerns, perfectionistic strivings, and the pursuit of excellence with outcomes indicative of academic achievement. **Method:** We investigated the relationships between outcomes indicative of academic achievement in youth (academic performance, academic burnout, test anxiety, academic motivation, procrastination, goal orientation, engagement, satisfaction, adjustment) and subscales of perfectionism measures commonly used within the literature (Frost Multidimensional Perfectionism Scale, Hewitt Multidimensional Perfectionism Scale, Almost Perfect Scale-Revised, Child and Adolescent Perfectionism Scale). **Results:** A systematic literature search yielded 74 studies with 589 effect sizes. Random effects models reveal High Standards were positively related to all adaptive academic outcomes, whilst negatively related to maladaptive outcomes including academic stress, and unrelated to test anxiety. Personal Standards and Self-Oriented Perfectionism, whilst related to some adaptive academic outcomes, were also positively related to maladaptive outcomes including test anxiety and performance avoidance. Subscales that measure perfectionistic concerns were consistently related to maladaptive academic outcomes. **Conclusion:** The findings suggest perfectionistic concerns are clearly maladaptive in regard to learning and academic achievement, whilst providing support the notion for a distinction between a healthy pursuit of excellence and perfectionistic strivings.

#### **A Randomized Controlled Trial Targeting Perfectionism in Young Gifted Adolescents: A Pilot Study**

**Tracey Wade, Catherine Johnson & Ivana Osenk, Flinders University, Australia**

**Background:** The purpose of this study was to evaluate a 3-lesson perfectionism module in young gifted adolescents, designed to decrease unhelpful perfectionism while not impacting on healthy striving for high personal standards.

**Methods:** Year 8 gifted students ( $n=93$ , mean age =13.59,  $SD=0.40$ ) were randomized to receive the perfectionism module ( $n=46$ ) or classes as usual ( $n=47$ ). We additionally examined the impact of the module on well-being, self-compassion, academic motivation and negative affect, at both post-intervention and 3-month follow-up. Data were analysed using linear mixed models adjusting for baseline observation and age.

**Results:** At post-intervention small between group effect sizes (Cohen's  $d$ ) were obtained for discrepancy (0.40: 95% confidence intervals [CI] -0.02:0.81), self-compassion (0.36: -0.05:0.77) and negative affect (0.20: -0.21:0.61), favouring the intervention group, but the commensurate effect size for high standards was negligible (0.07: -0.34:0.48). At 3-month follow-up, self-compassion retained a small between group effect size favouring the intervention group (0.30: -0.11:0.71).

**Discussion:** This study suggest that the intervention impacts unhelpful perfectionism without affecting high standards and improves self-compassion. Further development and evaluation of this program will inform us whether it can assist gifted children in avoiding burnout while improving engagement with academic goals.

#### **Preliminary Results from a School-Based Cluster Randomised Controlled Study Comparing Universal Eating Disorder Prevention Programmes**

**Melissa Atkinson, University of Bath, United Kingdom**

This study aimed to compare three different approaches to universal eating disorder prevention. Specifically, it evaluated three different body image programmes when delivered by class teachers to a mixed-sex adolescent sample. Twenty schools ( $N=2044$ , aged 13-15, 50.3% male) were randomised to receive one of three 5-lesson interventions (mindfulness,  $n=514$ ; dissonance,  $n=541$ ; dove confident me,  $n=489$ ) or classes as usual (control,  $n=503$ ). Self-report measures of key risk factors for eating disorders (including body image concerns and negative affect) were completed at baseline, post-intervention, 6-month, and 12-month follow-up. Multilevel model analyses assessed effects of condition, time and gender (and their interactions) over post-intervention and follow-up, controlling for baseline. Where gender moderation was significant, analyses were conducted separately for boys and girls. To date, we have preliminary results for effects at post-intervention. These indicate no significant differences between the 4 arms on any of the risk factor outcomes. However, subsequent moderation analysis indicated that students with higher baseline levels of depression, anxiety, and stress reported greater benefits: favouring the multifaceted programme for improving body image, and the mindfulness-based programme for improving negative affect. At post-intervention, low to

moderate acceptability was reported by students in all conditions, highlighting future work needed to increase engagement. These findings indicate some differential intervention benefits for certain groups of students when delivered in a sustainable teacher-led format, however further analysis of follow-up assessments are required prior to firm conclusions.

### **Challenges in the Treatment of Youngsters with Obesity and Binge Eating**

**Convenor: Caroline Braet, Ghent University, Belgium**

**Chair: Caroline Braet, Ghent University, Belgium**

**Discussant: Gerri Minshall, Children's Hospital at Westmead, Australia**

### **Training Parents of Children with Overweight in Parenting Skills: A Twelve-Month Evaluation**

**Ellen Moens, Odisee University College, Belgium**

**Caroline Braet, Ghent University, Belgium**

**Background :** The origins of childhood obesity invariably need to be looked at within a family context and several reviews have concluded in favour of parental involvement in the treatment of paediatric obesity. However, there is little consensus on the format and next to weight outcomes also behavioural outcomes merit more attention when assessing program effectiveness. **Methods:** In this study, a total of 50 families with overweight children (aged 6-12) were randomly allocated to a parent-led intervention group (cognitive behavioural training) or to a waiting list control group (Study 1). Afterwards, the parents of the waitlist control group followed the intervention as well. All children were followed in a follow-up study and were compared with a reference group (Study 2). **Results:** The intervention group as well as the waitlist group showed a decrease in adjusted BMI over a six months period, although the decrease was only significant for the intervention group (Study 1). All children showed a decrease of 7% in adjusted BMI from pre to one-year follow-up measurement (Study 2), while the reference group showed an increase in adjusted BMI over that period. Parents reported significant positive changes in children's eating behaviour and a significant positive increase in familial health principles. **Conclusions:** Weight and behavioural outcomes suggest potential for intervention effectiveness. We will discuss whether new formats of this parent-training (ehealth) could be used to reach a larger group of parents.

### **Comorbidities in Severe Obese Youngsters: Towards Tailored-Made Programs?**

**Ann Tanghe, Zeepreventorium, Belgium**

Research has demonstrated the effectiveness of multi-component CBT pediatric obesity treatment both in outpatient as in inpatient format. However, some obese youngsters do not seem to benefit fully from this approach. Investigating patient characteristics should enable to help screen out youngsters with a low probability of success and offer them for tailor-made programs. Therefore, our inpatient center collaborates with Ghent University in studying severe obese youngsters. In two studies (Study 1 N=66 adolescents; Study 2 N=52 adolescents) obese youngsters admitted for a 10-month obesity treatment programme were interviewed with the SCID-junior looking for psychiatric comorbidities and tested at the start of treatment with different questionnaires assessing emotional eating and related psychopathology. Results from Study 1 revealed that 45.3% of the obese youngsters received one or more psychiatric diagnoses and suffers from emotional eating. In Study 2, the 4-month follow-up shows that emotional eating reappear after treatment and is associated with family problems. From a psychological health perspective, the inclusion of individual psychotherapy during inpatient obesity treatment for adolescents suffering from psychiatric disorders is worth considering. Further, specific programs targeting emotional eating will be needed, complemented with family therapy. We will discuss how we can tailor these additional psychological treatments in pediatric clinics.

### **Researching the Predictors of Binge Eating with Fine Grained EMA**

**Lotte Lemmens, Maastricht University, the Netherlands**

Binge eating, the uncontrolled consumption of large amounts of food in a short time-frame, is a common and severe phenomenon with many negative consequences. Existing treatments for binge eating are promising, but with short- and long-term remission rates ranging from 37-69%, there is substantial room for improvement. As a starting point for treatment improvement, insight in the mechanisms that drive binge eating is crucial. The leading theoretical explanation for the occurrence of binge eating resides in cognitive-behavioural theory. According to this theory, dysfunctional beliefs about e.g., (the function of) eating, weight and body shape play a decisive causal role in the complex network of environmental, psychological, physiological, and behavioural factors that drive binge eating. Unfortunately, comprehensive empirical evidence for the cognitive-behavioural explanation of binge eating is lacking. As a result, it remains to be tested whether cognitions actually do play a crucial role in binge eating, or whether binge eating can be better predicted by other factors. In this presentation, the design of an ongoing innovative research project in which the predictors of binge eating – and the role of cognitions in particular – are systematically examined, will be presented. Using ecological momentary assessment (EMA), all factors of the cognitive-behavioural model are assessed repeatedly and in real-time. Subsequently, network analyses will reveal their longitudinal connections and relative impact on binge eating. This information will then be used to design and test a new personalised real-time Ecological Momentary Intervention (EMI) aimed at targeting the key concepts of binge eating using principles of cognitive-behavioural therapy (CBT). With this, the project does not only add to the understanding of binge eating behaviour, but also contains an important first step in the development of a personalised tool for preventing binge eating in daily life.

### **WELCOME: Improving Weight Control and CO-Morbidities in Children with Obesity via Executive Function Training: The First Results of a Randomized Controlled Trial in an Inpatient Treatment Center**

**Tiffany Naets & Leentje Vervoort, Ghent University, Belgium**

**Marijke Ysebaert, Annelies Van Eyck & Stijn Verhulst, Antwerp University, Belgium**

**Ann Tanghe, Zeepreventorium, Belgium**

**Benedicte De Winter, Antwerp University, Belgium**

**Caroline Braet, Ghent University, Belgium**

Childhood obesity can be considered a worldwide epidemic because of its increased prevalence and lifelong consequences. The World Health Organization pleads for evidence-based treatments, whereby a Family-Based CBT-based Multidisciplinary Treatment is the golden standard for reaching weight loss in obese youth. However, longitudinal research shows that there is still room for improvements in reaching weight control and a healthy lifestyle. Recent studies assume that obese individuals lack self-control because they have a strong bottom-up

reactivity (attentional bias) towards unhealthy food that cannot be properly regulated because of weak inhibition capacities (top-down executive functioning).

In the current project we aim to train youngsters with obesity to facilitate effects on weight loss, as well as psychological and medical comorbidities via an online self-control training whereby both attention bias modification as well as inhibition is trained intensively twice a week during 12 weeks. In a Randomized Controlled Trial (RCT) we will evaluate this self-control training. Effects on various parameters were compared in an experimental versus an active control group of obese youngsters (N=200; 8–18 years old), at both post-treatment and 6-month follow-up.

The first analyses show progress in both self-control abilities and maladaptive eating behavior. Because of the rigorous RCT procedure, data collection will be completed in May 2019. In comparison to the active control group, better progress is expected in the experimental condition on weight, unhealthy eating behavior, internalizing symptoms, impaired self-esteem, metabolic syndromes, endothelial dysfunction, tonsillar hypertrophy and sleep obstruction. Findings on the psychological parameters will be presented at the conference. It is stated that this self-control training is needed on top of CBT for realizing long-term effectiveness of childhood obesity treatment interventions.

### **In Search for Self-Care: Non-Suicidal Self-Injury in Eating Disorders and Obesity**

**Convenor: Laurence Claes, University of Leuven, Belgium**

**Chair: Laurence Claes, University of Leuven, Belgium**

**Discussant: Astrid Müller, Hannover Medical School, Germany**

### **Non-Suicidal Self-Injury Along the Eating Disorder Spectrum in Community Adolescents: Prevalence, Functionality, and Symptomatology**

**Tinne Buelens, University of Leuven, Belgium**

**Objective.** Non-Suicidal Self-Injury (NSSI) involves deliberate injury to one's body tissue without suicidal intent and for purposes not socially sanctioned (Nock & Prinstein, 2004). The prevalence of NSSI is particularly high in those with eating disorder symptomatology, which comprises the psychological and behavioural aspects of subclinical eating concerns. The present study focused on the prevalence and functionality of NSSI in a community sample of adolescents with eating disorder symptomatology.

**Methods.** Cross-sectional data was collected from secondary schools in Belgium. The 2161 participants (54% female) ranged between the ages of 10 and 21 years old (M = 14.68; SD = 1.87). All participants completed the Eating Disorder Inventory (EDI-3, Garner, 2004) and an NSSI questionnaire which assessed lifetime NSSI engagement, as well as methods and functions of NSSI. Additionally, participants were asked to provide their height and weight, which were used to classify them into four groups based on their adjusted BMI scores (underweight, normal weight, overweight, obese).

**Results.** Lifetime NSSI in our sample was 21.8% (n = 471), with 15.1% (n = 328) engaging in NSSI in the last 12 months. The underweight (n = 177, 8.2%), normal weight (n = 1544, 71.4%), overweight (n = 209, 9.7%), and obese (n = 64, 3.0%) groups significantly differed in the prevalence of NSSI. Proportionally, the obese group showed the highest rate of NSSI (35.9% affirmative,  $\chi^2_3 = 11.04$ ,  $p = .012$ ) and most often reported pricking oneself with a sharp object. Adolescents in the normal weight group reported the lowest rate of NSSI (20.7% affirmative) with cutting oneself as the most common indicated method of NSSI. Moreover, adolescents who engaged in NSSI and reported more eating disorder symptomatology also exhibited more psychopathology (e.g., depressive symptoms). More in-depth analyses and results will be discussed on the symposium.

**Conclusion.** The present study adds to the growing body of literature on NSSI and eating disorder symptomatology. Our results showed significant differences in both prevalence and methods of NSSI when groups based on adjusted BMI scores were compared. Additionally, the combination of both NSSI and eating disorder symptomatology was a risk-factor for further psychopathology.

### **Non-Suicidal Self-Injury in Female Patients with an Eating Disorder: Prevalence, Functionality, and Symptomatology**

**Laurence Claes, Katholieke Universiteit Leuven and University of Antwerp, Belgium**

**Jennifer Muehlenkamp, University of Wisconsin-Eau Claire, USA**

In the present presentation, we will focus on the prevalence of non-suicidal self-injury (NSSI), its etiological model and the treatment implications of NSSI in a sample of 422 female patients with an eating disorder (ED). The patients filled out questionnaires to assess clinical symptomatology (including NSSI, ED), personality characteristics and traumatic experiences. Of the total sample, 34.60% reported to have engaged in NSSI with a mean age of onset of 16.48 years (SD = 4.93). There were no significant differences between the ED subtypes and the duration of NSSI, nor the frequency of NSSI per week. However, patients with ED-BP reported engaging in more different types of NSSI. Childhood trauma had an indirect relationship with NSSI that is expressed via relations with low-self-esteem, psychopathology, body dissatisfaction and dissociation. Finally, we will show the effect of CBT treatment on (the evolution of) NSSI and ED (and their interplay) during a 6 months inpatient treatment of ED with assessment of NSSI/ED at base-line, 3 and 6 months. Finally, we will discuss the implications of these findings for the assessment and treatment of NSSI in ED.

### **Eating Disorder Males and NSSI: Associated Clinical Traits and Therapy Response**

**Fernando Fernandez-Aranda, Bellvitge University Hospital and Spanish Biomedical Research Centre in Physiopathology of Obesity and Nutrition, Spain**

**Laurence Claes, Catholic University of Leuven, Belgium**

**Susana Jimenez-Murcia, Zaida Agüera & Isabel Sánchez, University Hospital of Bellvitge-IDIBELL and CIBERObn, Spain**

**Roser Granero, Universitat Autònoma Barcelona and CIBERObn, Spain**

Eating Disorders (ED) are more often present in females than in males (9:1 ratio). Although men and women with ED share similar clinical and symptomatological characteristics, some gender particularities have been described. Pronounced general psychopathology was a shared factor associated with higher Emotional Regulation difficulties in both male and female ED. When considering therapy outcome, after an outpatient CBT approach, there were not differences described among sex, and similar results were obtained. In this presentation we will describe the prevalence of non-suicidal self-injury (NSSI) in male eating disorder (ED), after assessing more than 130 male ED patients, when compared with female ED. Overall, 21% of the male ED patients engaged in at least one type of NSSI, and we did not find significant differences between the ED subtypes. As in the case of female ED, self-injurious in male ED showed significantly more severe ED symptoms and more affective, interpersonal and impulse-control problems than ED patients without NSSI. As previously described in female

ED, our data confirm the affect regulation and impulse regulation functions. The extent, to which NSSI predicts outcome to CBT in males, will be discussed.

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### **Life-Time Non-Suicidal Self-Injury in Bariatric Surgery Candidates**

**Astrid Müller, Hannover Medical School, Germany**

**Laurence Claes, University of Leuven, Belgium**

**Dirk Smits, Odisee University College, Belgium**

**Martina de Zwaan, Hannover Medical School, Germany**

The study aimed at investigating the lifetime prevalence of 22 self-harm behaviors in bariatric surgery candidates (pre-bariatric surgery group; PSG) compared to community controls with obesity (obese community group; OCG). The Self-Harm Inventory (SHI) was administered to the PSG ( $n = 139$ ,  $BMI \geq 35 \text{ kg/m}^2$ ) and to the OCG ( $n = 122$ ,  $BMI \geq 35 \text{ kg/m}^2$ ). Group comparison of cumulative SHI scores indicated a trend towards less endorsed SHI items in the PSG compared to the OCG (median PSG = 1.00, IQR PSG = 2.00, median OCG = 1.00, IQR OCG = 2.25,  $U = 7.241$ ,  $p = 0.033$ ,  $\eta^2 = 0.02$ ). No significant group differences were found with regard to the rate of suicide attempts (12.4% vs. 9.4% for OCG vs. PSG). At least one type of lifetime self-harm behavior was admitted by 51.8% of the PSG and 63.9% of the OCG ( $\chi^2(1) = 3.91$ ,  $p = 0.048$ ). The results of logistic regressions using Firth's bias reduction method with at least one SHI item endorsed as dependent variable, group as categorical predictor (PSG as baseline), and age or BMI or PHQ-4 as continuous control variable indicated that only PHQ-4 had a positive effect on the odds ratio. The results suggest that self-harm (including suicidal attempts) is not more prevalent in bariatric surgery candidates than in community control participants with obesity. Further studies are needed to investigate self-harm in bariatric surgery patients, prior and following surgery, compared to non-operated patients with obesity.

### **Time to Make a Change: a Plea for Experimental Research on Key Processes in Anorexia Nervosa**

**Convenor: Klaske Glashouwer, University of Groningen and Accare Child and Adolescent Psychiatry, the Netherlands**

**Chair: Jessica Werthmann, Albert-Ludwigs-Universität Freiburg, Germany**

### **Look at Food to Lose your Fear – Does Attention Modification Towards Food Lead to Decreased Food-Avoidance and Symptom Improvement in Anorexia Nervosa Patients?**

**Jessica Werthmann, Albert-Ludwigs-Universität Freiburg, Germany**

**Ulrike Schmidt, King's College London, United Kingdom**

**Background:** Anorexia Nervosa (AN) is a life-threatening eating disorder (ED), characterised by persistent restrictive eating and/or other pathological weight loss behaviours, often driven by an intense fear of food, eating and weight gain. Our current understanding on causal mechanisms contributing to fear of food and the persistence of restrictive eating is still limited and experimental studies enlightening potential mechanisms are sparse. Cognitive models of AN posit a crucial role of biased attention processes for food-related information in the development and maintenance of restrictive eating behaviour. Initial research indicates that adults with AN tend to avoid to maintain their attention on food cues and it has been proposed that this attentional avoidance of food may help to regulate craving and food temptation, and may thus be cognitive mechanisms facilitating restrictive eating.

**Methods:** To test the potential causal impact of attention processes for food avoidance and AN symptomatology, an experimental attention bias modification study was conducted. In this experiment, 52 patients with AN were randomized to either an attention modification condition in which attention was trained to be (briefly) maintained on food cues or a control attention modification condition without food cues. The training paradigm was based on an anti-saccade training with concurrent eye-tracking and was administered in three laboratory sessions. Prior and after training completion participants completed a visual dot probe paradigm with food vs. non-food pictures while their eye-movements were tracked to evaluate the effects of the training on food-related attention biases. In addition, a taste test with smoothies was conducted as measure for behavioural food avoidance and questionnaires measuring self-reported food-related anxiety and other AN symptoms were assessed.

**Results:** Preliminary results of this study will be presented at the World Congress of Behavioural and Cognitive Therapies in Berlin 2019.

**Discussion:** This experimental study is a step forward to understanding if and how implicit processes, and specifically attention bias, may be involved as mechanisms underlying the persistence of food restriction in adults with AN.

### **Experimental Investigations of Food Avoidance as Core Maintaining Factor in Anorexia Nervosa**

**Valentina Cardi & Janet Treasure, King's College London, United Kingdom**

People with anorexia nervosa experience food-related fears and avoidance. Despite the key clinical relevance of this phenomenon, psychological therapies have somehow neglected this area of intervention. In my talk, I will provide an overview of psychological techniques developed and tested to support patients with anorexia nervosa at mealtimes. In particular, I will describe a series of experimental studies that tested the use of "vodcasts" (i.e. a vodcast is a short video clip) aimed at improving knowledge about the illness, motivation for change and positive mood with patients with eating disorders. The primary outcome of these studies was the number of calories consumed during a smoothie challenge test (i.e. participants were requested to drink as much smoothie as possible whilst watching the vodcast). Patients were compared to healthy controls and all participants completed the study's procedure twice, once watching the vodcast targeting eating disorder symptoms and once watching a "neutral vodcast". Data indicated that the use of the vodcasts developed to support patients at mealtimes were associated with greater caloric intake than the control condition, in patients. The presentation of these findings will be followed by the description of two studies that employed food exposure through virtual reality or in-vivo food exposure, respectively, to reduce fear of food in patients with anorexia nervosa. Both of these studies indicated that gradual exposure to food was effective in reducing food fear and avoidance in this patient group. Overall, I will demonstrate that it is possible to target food avoidance in anorexia nervosa effectively and that novel technologies are particularly useful to implement psychological support at mealtimes.

## **Persistent Maladaptive Learning and Decision Making in Anorexia Nervosa: The Role of Fronto-Striatal Circuits**

**Karin Foerde, New York State Psychiatric Institute, USA**

**Joanna Steinglass, Columbia University Irving Medical Center and New York State Psychiatric Institute, USA**

**Daphna Shohamy, Columbia University and Zuckerman Mind Brain Behavior Institute, USA**

**B. Timothy Walsh, Columbia University Irving Medical Center and New York State Psychiatric Institute, USA**

Anorexia nervosa (AN) is characterized, in part, by persistent dietary restriction leading to starvation. Disturbed eating patterns are associated with long-term outcomes and relapse. We examined food decision making, using a computer-based Food Choice Task with functional MRI, and reinforcement learning for both monetary and food outcomes in women with AN and healthy comparison (HC) women. Women with AN were examined before and after weight restoration and HC women at two time points. Despite improvement in mood, anxiety, and eating disorder severity scores, task-based food choice disturbances and reinforcement learning deficits persist with weight restoration. Further, among AN, but not healthy controls (HC), active decision-making around food choice is related to neural activation in the dorsal striatum and fronto-striatal connectivity—a pattern that does not change with weight restoration. Maladaptive restrictive food choice is highly persistent in AN, with no significant change after weight restoration treatment, in behavior or in associated neural activity. In addition, deficits in learning from feedback persist, with implications for treatment response. The absence of meaningful change with weight restoration highlights the need for new mechanism-based treatment interventions.

## **Starvation as a Maladaptive Mechanism of Emotion Regulation in Anorexia Nervosa**

**Timo Brockmeyer, Georg-August-Universität Göttingen, Germany**

Restricted food intake and resulting weight loss have long been considered a maladaptive mechanism of emotion regulation in AN. However, evidence for this hypothesis has been primarily based on qualitative data and clinical impression. I will summarise findings from a series of quantitative studies demonstrating a close link between underweight and emotion regulation in AN. This will involve data from self-report measures, experimental paradigms, EMG and fMRI recording. I will discuss the hypothesis that, in AN aversive emotions may be down-regulated by a reduced serotonin function via reduced intake of tryptophan, an essential amino acid that is only available in the diet. Acting through negative reinforcement, this psychobiological mechanism might be a crucial maintenance factor in AN and a potential target for novel interventions.

## **Too 'Fat' to Eat? About Body Image Disturbance as a Key Factor in the Persistence of Anorexia Nervosa**

**Klaske Glashouwer & Renate A. M. Neimeijer, University of Groningen and Accare Child and Adolescent Psychiatry, the Netherlands**

**Carolien Martijn & Michiel Vestjens, Maastricht University, Germany**

**Roosmarijn M. L. van der Veer, Accare Child- and Adolescent Psychiatry, the Netherlands**

**Fayanadya Adipatria & Peter J. de Jong, University of Groningen, the Netherlands**

**Silja Vocks, Osnabrück University, Germany**

### **Background**

Body image disturbance is an important feature of Anorexia Nervosa (AN). Some researchers have argued that body image disturbance is not just a symptom of AN, but plays a causal role in the maintenance of AN. We systematically reviewed the existing empirical evidence concerning the cognitive-affective, perceptual, and behavioral components of body image disturbance in AN. Forty-six studies fulfilled eligibility criteria reporting about 4928 participants with AN. There is some evidence suggesting that body image disturbance is related to the course of AN. However, on the basis of the available empirical data, it remains unclear whether body image disturbance is indeed a key factor that contributes to the persistence of AN. This is mainly due to a lack of experimental studies in this domain. As an example of how experimental research can be designed for this target group, a RCT will be presented in which evaluative conditioning was examined as an intervention for body image.

### **Objective**

The aim was to investigate whether a computer-based evaluative conditioning intervention improves body image in adolescents with an eating disorder. Positive effects were found in earlier studies in healthy female students in a laboratory and a field setting. This study is the first to test evaluative conditioning in a clinical sample under less controlled circumstances.

### **Method**

Fifty-one adolescent girls with an eating disorder (primarily with AN partially in remission) and a healthy weight were randomly assigned to an experimental condition or a placebo-control condition. The computerized intervention consisted of six online training sessions of 5 min, in which participants had to click on pictures of their own and other people's bodies. Their own pictures were systematically followed by portraits of friendly smiling faces. In the control condition, participants were shown the same stimuli, but here, a stimulus was always followed by another stimulus from the same category, so that own body was not paired with smiling faces. Before, directly after, three weeks after, and 11 weeks after the intervention, self-report measures of body image and general self-esteem were administered. Automatic self-associations were also measured with an Implicit Association Test.

### **Results**

In contrast to our hypotheses, we did not find an effect of the intervention on self-report questionnaires measuring body satisfaction, weight and shape concern, and general self-esteem. In addition, the intervention did not show positive effects on implicit associations regarding self-attractiveness.

### **Conclusions**

These findings do not support the use of evaluative conditioning in its present form as an intervention for adolescents in clinical practice. However, the way this study was set up as an add-on RCT next to treatment as usual might be a feasible design for conducting experimental research on the role of body image disturbance and other presumed causal factors in AN.

## **Sex and Gender Differences in Body Image and Its Disorders**

**Convenor: Andrea Hartmann, Osnabrück University, Germany**

**Chair: Silja Vocks, Osnabrück University, Germany**

### **Men, but Not Women, Show Self-Serving Double Standards in Body Evaluation**

**Mona Voges, Claire-Marie Giabbiconi, Benjamin Schöne, Manuel Waldorf, Andrea S. Hartmann & Silja Vocks, Osnabrück University, Germany**

**Introduction:** Most body image research has been conducted in women, as compared to men, women are more likely to be dissatisfied with their own body and to develop eating disorders. However, it remains unclear whether the application of double standards contributes to these divergent body evaluations. With the present study, we examined whether women and men apply different standards to their own body than to other persons' bodies and whether they differ from each other in this regard.

**Method:** The sample consisted of  $n = 104$  women and  $n = 93$  men aged 18-30 years of average weight. We presented them with pictures of thin, average-weight, overweight, athletic and hypermuscular female and male bodies on a computer screen. Identity was manipulated by showing the bodies of the respective participant's gender once with the participant's own face and once with the face of another person.

Participants were instructed to rate their emotional reaction to the bodies according to valence and arousal, and to rate the bodies with respect to attractiveness, body fat, and muscle mass. To measure the extent of double standards, we calculated the differences between the rating of a body presented with the participant's face and the rating of the same body presented with another person's face.

**Results:** Regarding the overweight body, both genders revealed self-deprecating double standards in valence, body attractiveness, body fat and muscle mass. Furthermore, men showed self-deprecating double standards for the thin, average-weight and hypermuscular bodies, but evaluated the athletic body, which was rated as the most attractive, as more attractive and with a higher positive feeling when it was presented with their own face. Women did not show any self-serving double standards. Moreover, they showed fewer self-deprecating double standards than did men.

**Discussion:** The faces that were used as identity cues might have activated different body schemata, which influenced body ratings and thus led to the application of double standards. Both women and men appear to devalue overweight bodies when they are self-related, which underlines the aversion to body fat for both genders. As men did not evaluate every body more positively when presented with their own face, men do not appear to upvalue their bodies in general. However, male stereotypes that men should be proud, strong, and dominant might enable men to upvalue the ideal body and devalue non-ideal bodies. Thus, men seem to carry the advantage of being able to rate in a self-serving way if a feature is desirable. In contrast, female stereotypes, according to which women should be friendly and encourage harmony in groups, might contribute to a more fair-minded approach to body ratings.

**Conclusion:** Even women and men without mental disorders show double standards. Potential implications for practitioners are that they should be aware of the differing use of double standards in men and women and check whether a patient's body image or self-worth problems are related to the use of double standards, which could be addressed in therapy.

### **Gender Effects in the Neural Bases of Body Aesthetic Appreciation**

**Cosimo Urgesi, University of Udine, Italy**

Aesthetic perception of human bodies is strongly driven by the interaction between body movement (e.g., gait or dance moves) and body form (e.g., weight) cues, which are in turn processed in specific and body-selective visual and motor areas. Accumulating evidence suggests potential sex differences in the lateralization of response of extrastriate body area (EBA) to human body images. Although previous studies have found some degree of right hemisphere dominance in body perception, presently it is unknown whether such a functional lateralization may differ between men and women in appreciating the beauty of the body. In a first study, we applied repetitive Transcranial Magnetic Stimulation (rTMS) over left and right EBA and over vertex to investigate the contribution of visual body representation on aesthetic body perception. Female and male healthy volunteers judged how much they liked opposite- and same-gender virtual model bodies that varied in body size. In a further task, the same volunteers were required to judge the weight of the virtual models, thus allowing us to compare the effects of right and left EBA on evaluative and perceptual judgments of human bodies. The analysis of the aesthetic judgments provided by women revealed that right-EBA rTMS increased the liking judgments of opposite- but not same-gender models, as compared to both vertex and left EBA stimulation. Conversely, in men the liking judgments of opposite-gender models decreased after virtual disruption of both right and left EBA as compared to vertex stimulation. No significant effect was found for the perceptual task. This provides evidence of gender difference in the hemispheric asymmetry of EBA in the aesthetic processing of human bodies, with women showing stronger right hemisphere dominance in comparison with men. Importantly, in a further rTMS study, we found that gender effects in the lateralization of body-selective areas were stronger in the visual, extrastriate cortex than in premotor cortex, likely reflecting processing of different body cues (i.e., form vs. motion) in others' bodies. These results have potentially relevant implications for the understanding of the neural underpinning of visual body perception as well as for understanding and treatment of body image disorders in ED patients. Indeed, the results suggest that cognitive neuroscience studies urge to take into account important gender differences in the neural organization of visual body perception when trying to investigate how early visual processing of human bodies might contribute to higher-level affective and social behaviors. Furthermore, the more lateralized representation of body aesthetic in women than in men might be related to explain the greater incidence of EDs among women. Finally, the results might be useful for designing psychotherapeutic interventions for ED patients using body exposure, highlighting the importance of considering lateralized presentations of body stimuli to the left visual hemifield in women.

### **Do Women and Men Differ in Their Emotional Reactions to Body Checking? An Experimental Mirror Exposure Study**

**Julia Tanck, Silja Vocks, Bettina Riesselmann & Manuel Waldorf, Osnabrück University, Germany**

The term body checking (BC) describes behaviors carried out with the intention of collecting information about body shape, size or weight. BC not only occurs as a transdiagnostic symptom in the various forms of eating disorders (ED) but is also common in healthy populations. Furthermore, BC is associated with body dissatisfaction, and enhances the likelihood of developing body image disturbances and EDs.

Recent studies found differences between females and males concerning body dissatisfaction and related BC strategies. Nevertheless, it remains unclear whether women and men differ in their intensity of negative affect and state body satisfaction as a reaction to body checking. Hence, in the present experimental mirror exposure study,  $n = 60$  women and  $n = 60$  men underwent a crossover design with two experimental conditions and one control condition. In the negative body checking condition (NBC), participants were instructed to check their negatively valenced body parts in a three-way mirror cubicle, while in the positive body checking condition (PBC), participants were instructed to check their positively valenced body parts. In the control condition, participants played a computer game without human stimuli. Before and after the checking of one's own body, participants were asked to rate negative affect and state body satisfaction. The



results of the 3×2 ANOVA revealed an increase of negative affect for women and men in both NBC and PBC. Moreover, for both females and males, a significant influence of eating pathology on negative affect in response to BC was found. Specifically, eating pathology moderated negative affect after checking one's own body in the NBC. In all conditions, men indicated a significantly higher state body satisfaction than women, whereas only women showed reduced state body satisfaction as a reaction to BC. Based on these findings, it can be concluded that BC of negatively and positively valenced body parts increases negative affect for both genders. In addition, women and men with pathological eating behavior tend to be more vulnerable to changes in negative affect. Furthermore, compared to women, men report higher body satisfaction in general, leading to a more stable body image. Since negative affect increased after NBC and PBC alike for both genders, BC might be an important factor in the maintenance of body image disturbances.

### **Eating Disorder Symptoms and Proneness in Gay Men, Lesbian Women, and Transgender and Nonconforming Adults: Comparative Levels and a Proposed Mediation Model**

**Elizabeth Rieger & Kathryn Bell, Australian National University, Australia**

**Jameson Hirsch, East Tennessee State University, USA**

In this study we compared eating disorder attitudes and behaviors, and proneness to an eating disorder ('ED proneness'), between gay men, lesbian women, and transgender and nonconforming (TGNC) adults. A further aim was to identify and compare risk and protective factors, and examine a mediational model based on the interpersonal theory of eating disorders, whereby the association between interpersonal factors and ED proneness would be mediated by psychological constructs pertaining to the self and negative affect. Data was obtained from a larger national study of health risk and protective factors among sexual minority and gender diverse populations. The sample included 97 gay men, 82 lesbian women, and 138 TGNC adults. Participants completed the National College Health Assessment, Eating Disorders Screen for Primary Care, Patient Health Questionnaire Depression scale, Generalized Anxiety Disorder 7 scale, Self-Compassion Scale-Short Form, Negative Social Exchange subscale of the Multidimensional Health Profile, Interpersonal Needs Questionnaire, and Perceived Stigma Scale. There was a significant difference between groups in ED proneness, with lesbian women (66.7%) having a significantly higher percentage than gay men (47.6%). There was also a significant difference between groups in weight-based self-worth, with the highest percentage in lesbian women (82%) and the lowest percentage in gay men (63%), as well as dissatisfaction with eating patterns, with the highest percentage in TGNC adults (69.8%) and the lowest percentage in gay men (47.7%). There was a low percentage of inappropriate compensatory behaviors, with no significant difference between groups. Logistic regression analyses showed that the predictor variables of ED proneness were depression, perceived stigma, and self-compassion in gay men; depression in lesbian women; and self-compassion in the TGNC adults. Mediation analyses showed that thwarted belongingness (i.e., an unmet to belong) and perceived stigma had an indirect association with ED proneness that was mediated by self-compassion and depression (for perceived stigma alone) in gay men, depression in lesbian women, and self-compassion in TGNC adults. The interpersonal theory of eating disorders therefore extends to sexual minority and gender diverse populations; however, the results suggest a broadening of theoretical models and intervention programs to include the role of stigma and self-compassion.

### **Differences in the Interaction of Body and Sexual Satisfaction Among Heterosexual, Bisexual and Lesbian Women**

**Silvia Moreno, University of Jaen, Spain**

Gender-based differences in body image dissatisfaction are not conclusive. Women's body experiences and their impact on sexual satisfaction may advance knowledge on how heterosexual, bisexual, and lesbian women internalize heterosexist values. In this study, we quantitatively examined the degree of body image and sexual dissatisfaction experienced by heterosexual, bisexual, and lesbian women, to determine whether body dissatisfaction can predict sexual dissatisfaction. Three hundred and fifty-four women completed an online survey measuring body and sexual dissatisfaction. No sexual orientation-based differences were observed in body or sexual dissatisfaction; however, body concerns were found to have less influence on sexual dissatisfaction in lesbian women compared to heterosexual and bisexual women. Standards of beauty remain constant among all women, yet removing themselves from the male gaze may be interpreted as a protective factor which shields women from expressing concern about their appearance during sexual activity.

### **Emotion and Cognition in Disordered Eating: New Perspectives and Implications for Treatment**

**Convenor: Maja Nedeljkovic, Swinburne University of Technology, Australia**

**Chair: Maja Nedeljkovic, Swinburne University of Technology, Australia**

#### **Emotional Arousal and Eating Behaviours**

**Georgette Karvelas & Claire Ahern, Swinburne University of Technology, Australia**

The current literature indicates a trend towards an increase in food consumption in response to negatively induced affect in non-clinical individuals, particularly for those scoring high on dietary restraint (Evers, Adriaanse, de Ridder, & de Witt Huberts, 2013; Cools, Schotte, & McNally, 1992; Frost, Goolkasian, Ely, & Blanchards, 1982; Heatherton, Herman, & Polivy, 1991). However, the research on the influence of positive affect on eating behaviours has been limited and inconclusive; positive emotions have been associated with an increase in food consumption (Bongers et al., 2013; Evers et al., 2013), a decrease in food consumption (Turner, Luszczynska, Warner, & Schwarzer, 2010), and with no effect on food consumption (Yeomans & Coughlan, 2009) when compared to neutral mood conditions. This study aimed to provide a greater understanding of the impact of affect on eating behaviours by investigating participant food and energy consumption subsequent to negative, positive, and neutral mood induction. This study also examined whether restraint and other disordered eating behaviours moderate the relationships between affect, and food and energy consumption. Ninety-three participants completed a battery of self-report questionnaires, and took part in an experimental mood induction procedure, after which food and energy consumption were recorded. While no relationships were found between affect and food consumption, there was a significant difference in energy consumption across the mood conditions. Furthermore, disordered eating behaviours were found to interact with affect to influence energy consumption. Results suggested that affect has greater impact on the type of food consumed compared to the quantity of food consumed. Further, the combination of autobiographical recall with mood suggestive music was found to be a powerful technique for inducing negative and positive affect. The findings extend support for theories within the affect regulation framework in explaining eating behaviour.

## **The Relationship Between Attachment Experiences, Emotional Regulation and Disordered Eating**

**Maja Nedeljkovic, Nicole Redlich & Kym Richards, Swinburne University of Technology, Australia**

**Tanya Cooper, LaTrobe University, Australia**

**Samantha Elliott, Jilly Richards & Maja Nedeljkovic, Swinburne University of Technology, Australia**

Research has suggested a particular role for emotional regulation, and developmental factors in the expression of eating disorder symptoms (Tasca & Balfour, 2011). For example, differences in emotion regulation have been related to disordered eating (Svaldi, Griepentstroh, Tuschen & Ehring, 2012), while early developmental experiences are thought to contribute to differences amongst individual's levels of emotion regulation and disordered eating (Tasca & Balfour, 2011). Empirical research to date regarding the interplay between attachment, emotion regulation and disordered eating has been limited. Across two studies the current research aimed to investigate the role of attachment and emotion regulation in disordered eating behaviour. A total of 310 participants (n=98 in study 1 and n=212 in study 2) completed online self-report measures relating to attachment, emotion regulation and disordered eating attitudes and behaviours. The results, which were replicated across the studies indicated that attachment and emotion regulation were significant predictors of disordered eating, and difficulties with emotion regulation acted as a mediator in this relationship. These results suggested that individuals with an insecure attachment are more likely to present with disordered eating due to having poor emotion regulation. It can be concluded that treatment for eating disorders should consider the influence of early attachment experiences and emotion regulation difficulties in disordered eating behaviours.

## **Eating Disorders and Trauma: An Exploration of the Role of Compassion in Recovery**

**Inge Gnat, Maja Nedeljkovic & Danielle Williamson, Swinburne University of Technology, Australia**

Eating disorders and disordered eating behaviours are debilitating and often chronic conditions for those who experience them. Current evidence suggests that psychological interventions exhibit reasonable efficacy however, there is a gap in terms of individuals who do not respond fully to treatments and a sizeable proportion who experience relapse. Developing a better understanding of factors pertinent to facilitating recovery whilst considering some of the complexities that present for this patient population, is an area of research that has the potential to enhance treatment outcomes. Exposure to traumatic or adverse experiences is one factor reported to be increased proportionally in eating disorder patients and thought to interact with and contribute to the maintenance of eating disorder symptoms. Despite this, trauma is not typically addressed during treatment. Recent research has indicated that enhancing compassion may facilitate recovery in both eating disorders and trauma and is yet to be investigated simultaneously. The aim of the current study was to explore the relationship between eating disorder and post-traumatic symptoms, alongside levels of compassion in a sample of the general population. The results of the study will be utilised to inform the delivery of a group-based programme that aims to enhance levels of compassion as a way of facilitating the processes involved in recovery.

## **Exploring the Relationship Between the Risk of Anorexia Nervosa and Cognitive Flexibility**

**Stephanie Miles, Maja Nedeljkovic & Andrea Phillipou, Swinburne University of Technology, Australia**

Cognitive flexibility is the ability to effectively adapt to changes in the environment and/or changing task demands (Deák, 2003). Adaptations may include combining concepts, modifying responses and/or shifting thought and action to respond to the situation in a different way (Deák, 2003; Eslinger & Grattan, 1993). Impaired cognitive flexibility may contribute to the maintenance of anorexia nervosa symptoms and treatment resistance (Lang et al., 2014; Treasure and Schmidt, 2013). Poor cognitive flexibility has been suggested as a risk factor for anorexia nervosa, however, the research in this area is still developing (Culbert et al., 2015; Holliday et al., 2005; Lindner et al., 2014).

This study aimed to investigate the relationship between cognitive flexibility and the risk of developing AN. It was hypothesised that participants who were at high risk of developing AN would perform worse in cognitive flexibility measures than those who had a comparatively lower risk. 273 participants (78% female) with a mean age of 32.23 (standard deviation = 10.67) participated in the research. The Wisconsin Card Sorting Task (WCST) and the Trail Making Task (TMT) were used as neurocognitive measures of cognitive flexibility whilst the Cognitive Flexibility Inventory (CFI) provided a self-report measure of cognitive flexibility. Depressive symptoms, neuroticism and disordered eating cognitions were assessed to determine the risk status of participants.

A cluster analysis was performed to group participants into low, medium and high risk of anorexia nervosa groups. The groups were compared on the cognitive flexibility measures. It was found that participants at higher risk of developing anorexia reported significantly poorer cognitive flexibility than participants at medium or low risk. However, performance on the neurocognitive measures of cognitive flexibility was similar across the groups.

The findings of this research suggest that people at high risk of developing anorexia nervosa perceive their cognitive flexibility to be significantly worse than people at low risk of developing anorexia nervosa. Despite this difference in self-reported cognitive flexibility, this research found no significant differences between high and low risk participants on their objective performance in cognitive flexibility tasks. Taken together, these findings suggest that poor cognitive flexibility is not a risk factor for anorexia nervosa, however, people at higher risk of developing anorexia nervosa may perceive themselves to be more cognitively rigid than people at a comparatively lower risk.

## **A Dual Process Models Approach to Understanding and Treating Eating and Weight Disorders**

**Convenor: Leentje Vervoort, Ghent University, Belgium**

**Chair: Leentje Vervoort, Ghent University, Belgium**

**Discussant: Lien Goossens, Ghent University, Belgium**

## **Attentional Engagement and Disengagement to Food Cues in Anorexia Nervosa**

**Nienke Jonker, Klaske Glashouwer, Bert Hoekzema, Brian Ostafin & Peter De Jong, University of Groningen, the Netherlands**

**Aim:** We examined whether selective visual attention (i.e., attentional bias) for food cues is related to Anorexia Nervosa (AN). Treatments for patients with AN are limited in their effectiveness, and relapse after treatment is common. To improve currently available treatment options it is important to increase insight in what factors are related to the maintenance of AN. One factor that has been proposed to be involved in the persistence of AN is a decreased attentional bias to food cues. It might be that patients with AN do not show the attentional bias for food which is seen in individuals with healthy eating behavior, which would make it easier to resist food even in a state of starvation. The attentional bias measures that have been used in previous research did not control for the location of initial attention, which rendered it impossible to adequately test both the difference in the tendency to look at food (i.e., engagement) and the difference in participants'

difficulty to redirect their attention away from food (i.e., disengagement). Method: We examined attentional bias in patients with AN with a measure that controls for the location of initial attention which is therefore suggested to be optimally able to differentiate between enhanced engagement with food, and difficulty to disengage from food (Attentional Response to Distal vs. Proximal Emotional Information – task). Participants were patients with AN (N = 69) with an age between 12 and 23, and a comparison group (N = 69) without eating disorders that was matched on sex, age and educational level. Results: Adolescents without an eating disorder showed attentional engagement with food cues that were shown briefly. Patients with AN showed less attentional engagement with food cues than the adolescents without an eating disorder. Conclusion: These results suggest that patients with AN lack a bias that seems to be involved in healthy eating behavior. Further results and implications will be discussed.

### **Multi-Method Evidence for a Dual-Pathway Perspective on Loss of Control Over Eating Among Adolescents**

**Eva Van Malderen, Lien Goossens & Sandra Verbeken, Ghent University, Belgium**

**Eva Kemps, Flinders University, Australia**

Objective: Loss of control over eating is common among adolescents and is associated with negative developmental outcomes. Research that focuses on investigating the underlying mechanisms of loss of control over eating is driven by dual-pathway models which propose that this eating pathology is the result of an imbalance between immature regulatory processes and strong reactive processes. However, most studies have been conducted in adult samples, highlighting the need for examining these processes also in adolescent samples. Therefore, the aim of the current study was to investigate the dual-pathway perspective, and more specifically the interaction between immature inhibitory control in combination with strong reward sensitivity and attentional bias in the context of loss of control over eating in adolescents. Method: A community sample of 295 adolescents (10 – 17 years; 64.1% girls; Mage = 14 years; SD = 1.99) was subdivided into a ‘Loss of Control Group’ (n = 93) and a ‘No Loss of Control Group’ (n = 202) based on a self-report questionnaire. Both regulatory and reactive processes were measured multi-method (i.e., with behavioral tasks and self-report questionnaires): the go/no-go task and the BRIEF for regulatory processes and the dot probe task and the BAS for reactive processes. Results: Significant interaction effects were found. More specifically, the combination of impaired inhibitory control and strong reward sensitivity and the combination of impaired inhibitory control and strong attentional bias increased the risk of experiencing loss of control over eating, both with the use of behavioral tasks as well as with self-report questionnaires. Conclusion: Our results provide multi-method evidence for the dual-pathway perspective in which impaired regulatory processes and strong reactive processes interact in explaining loss of control over eating in adolescents. Theoretical and practical implications are discussed.

Keywords: adolescents; loss of control over eating; dual-pathway perspective; inhibitory control; reward sensitivity; attentional bias.

### **A Systematic Review of the Evidence for Enhancing Childhood Obesity Treatment from a Dual-Process erspective**

**Eva Kemps, Flinders University, Australia**

**Lien Goossens, Ghent University, Belgium**

**Jasmine Petersen, Flinders University, Australia**

**Sandra Verbeken, Leentje Vervoort & Caroline Braet, Ghent University, Belgium**

Childhood obesity is a growing public health problem worldwide. Although existing interventions are effective in producing weight loss, they often fail to procure sustained weight loss. To enhance childhood obesity treatments, further insight is needed into the mechanisms that determine excess caloric intake and associated weight gain. One possible explanation for the poor outcomes of existing therapies is that overweight youngsters have a heightened responsivity to high calorie food cues coupled with poor self-regulatory control. The aim of the present review was to evaluate the evidence for the self-regulation failure hypothesis from a dual-process models perspective. According to dual-process models, eating regulation and weight management are determined by the interplay between automatic and regulatory processes. Relevant publications were identified through a systematic search of six electronic databases (Embase, Medline, PsycInfo, PubMed, Scopus and Web of Science). Eligible studies recruited a child or adolescent sample; measured or manipulated one or more automatic (attentional bias, approach bias) and/or regulatory processes (working memory, inhibitory control, executive function); used a cross-sectional, longitudinal or experimental design; and included a primary outcome measure that was eating/weight related and/or pertained to the underlying process(es). A total of 135 such studies were identified, most of which were of high quality. There were, however, substantial methodological variations and inconsistent findings across studies. Nevertheless, on balance, the evidence shows a stronger impact of automatic processes and in particular a reduced capacity for regulatory processing in overweight children and adolescents. In addition, emerging evidence suggests that these dual-processes can be modified through targeted training to reduce caloric intake and associated body weight. Thus, an intervention protocol based on the dual-process framework holds promise for enhancing current childhood obesity treatment programs. However, further research in the form of adequately powered, methodologically sound randomised controlled trials is needed.

### **Smartphone-Delivered Approach-Avoidance Training Improves Food Choice in Obesity**

**Naomi Kakoschke, Chloe Hawker, Ben Castine, Barbora De Courten, Antonio Verdejo-Garcia, Monash University, Australia**

Background: Obesity is partly driven by deeply ingrained unhealthy food choices, which are underpinned by cognitive biases. These biases include approach bias (an automatic tendency to move toward rather than away from appetitive food cues) and delay discounting (a preference for smaller, immediate over larger, delayed rewards). Cognitive training strategies that aim to modify these biases, namely, approach-avoidance training (AAT) and episodic future thinking (EFT) have been shown to improve food choice. However, previous studies have tested these training strategies in single laboratory-based sessions with normal weight participants. We conducted a pilot randomised trial to compare the impact of these two trainings, delivered daily for one week via smartphone apps, on approach bias for healthy and unhealthy food, delay discounting, food choice, and body weight. Methods: Participants were 60 adults with overweight or obesity (39 female; mean age = 26.93 ± 6.73 years; mean BMI = 30.34 ± 3.75 kg/m<sup>2</sup>). They were randomly allocated to one of three groups: AAT, EFT, or waitlist control. The primary outcome was food choice and the secondary outcome was change in body weight (kgs). These outcomes were measured immediately after the intervention and at 6-week follow-up. Training compliance and engagement were also measured. Results: Training session completion rates were high for both AAT (85.71%) and EFT (86.43%),  $t(38) = -0.11$ ,  $p = 0.92$ . Approach bias for unhealthy food was lower in AAT than EFT at post-training (MDiff = -64.56,  $p = 0.02$ , 95% CI [-118.83, -10.28]). Healthy food choice (%) was higher for participants in the the AAT than the control group at post-training (MDiff = 23.45,  $p = 0.01$ , 95% CI [7.26, 39.64],  $d = 1.26$ ), and at 6-week follow-up (MDiff = 23.92,  $p = 0.01$ , 95% CI [5.37, 42.48],  $d = 1.24$ ). Weight reduced from pre-training to 6-week follow-up in the AAT group (MDiff = -0.74,  $p = 0.03$ , 95% CI [-1.40, -0.090],  $d = 0.47$ ). However, EFT training did not affect delay discounting, food choice, or weight (all  $p$ 's > 0.1). Discussion: AAT is a promising cognitive training strategy for improving food choice in individuals with

overweight and obesity. Smartphones are a feasible and engaging way to administer cognitive training strategies. Future research should examine the efficacy of smartphone-delivered AAT in larger, clinical samples.

### **(Self-)Disgust in Eating Disorders**

**Convenor: Paula von Spreckelsen, University of Groningen, the Netherlands**

**Chair: Paula von Spreckelsen, University of Groningen, the Netherlands**

#### **"If I Feel Disgusted, I Will Become Fat"- Disgust-Based Emotional Reasoning and Eating Disorder Symptoms**

**Peter de Jong & Klaske Glashouwer, University of Groningen, the Netherlands**

A common feature of eating disorders is disgust towards food and one's own body. This may not only be a symptom but may also further reinforce weight and shape concerns (e.g., anorexia patients associate disgust to feelings of fullness and fear of becoming fat). This study tested if feelings of disgust may indeed promote the generation of fearful concerns (e.g., gaining weight) in eating disordered individuals. If disgust is taken to signal a greater risk of threatening eating-disorder-related outcomes to occur this may strengthen symptoms and associated negative health behaviours. To index disgust-based reasoning we designed 16 food-related scenarios that systematically varied in the presence/absence of a disgust response. To explore whether emotional reasoning (ER) within the context of eating disorders would be especially relevant when objective threats are low (disgust following eating a small amount of food, low in caloric value), the scenarios also systematically varied in food quantity and caloric value. ER was measured by the difference in the scenarios with and without a disgust response. In study 1, participants were women with high ( $n = 36$ ) versus low ( $n = 32$ ) scores on the Eating Disorder Examination Questionnaire (EDE-Q). Specifically the high EDQ group inferred a heightened risk of becoming fat when scenarios implied disgust feelings following food-intake. The impact of disgust was especially pronounced for scenarios referring to the intake of small amounts of food. These findings were replicated in Study 2 ( $N=346$ ) using the same measures within a correlational approach. Specifically disgust based reasoning within the context of low caloric foods (i.e. low objective threats) was associated with eating disorder symptoms. All in all, the results providing converging evidence consistent with the view that disgust-based ER might contribute to eating disorder symptoms.

#### **The Role of Self-Disgust and Emotion Regulation Within Recovering from an Eating Disorder: A Mixed Methods, Longitudinal Perspective**

**Katie Bell, De Montfort University, United Kingdom**

There is a substantial body of literature supporting the view that disordered eating behaviour is broadly characterized by emotion dysregulation but little attention has been paid to the possible mediators that could explain this relationship

Three hundred and fifteen female participants, with a self-reported diagnosis of anorexia nervosa ( $n=155$ ), bulimia nervosa ( $n=97$ ) or no previous history of an eating disorder ( $n=63$ ) took part in a questionnaire based longitudinal study, using measures of eating disorder symptoms as the outcome variables and scores of self-disgust (SD) and difficulties in emotion regulation (DER) as the predictor variables. Out of this sample, twelve were also interviewed to learn more about their lived experiences of recovery and how SD may have impacted on this.

SD was significantly, positively associated with all sub types of difficulties in emotion regulation and disordered eating behaviour, as well measures of anxiety and depression. In line with this, SD also predicted eating disorder symptomology after controlling for anxiety, depression and emotional regulation difficulties. Key themes from the interviews are also discussed.

Difficulties in emotion regulation have already been established as a useful target for therapeutic intervention and therefore targeting and developing strategies to deal with SD explicitly may offer another strand of potential treatment for those with an eating disorder.

#### **Averting Repulsion – The Role of Body-Directed Self-Disgust in Autobiographical Memory Retrieval**

**Paula von Spreckelsen, Ineke Wessel, Klaske Glashouwer & Peter de Jong, University of Groningen, the Netherlands**

Disgust is an emotion that is not only experienced towards primary contaminants (e.g., rotten food) but can also extend to other stimuli, including the own body. If disgust towards one's body is experienced repeatedly, a stable appraisal of the own body as a repulsive object may be formed and become part of a person's body-schema/image. This repulsive body image (RBI) is likely to bias information processing to information that is congruent with that body image. For example, memories about past aversive experiences involving the own body (e.g., receiving an insulting comment about one's appearance) may become highly accessible. Specific autobiographical memories have been identified as a source of powerful emotions. Thus, accessing specific memories with an RBI-related content would likely result in the experience of intense disgust. Disgust is a powerful defensive emotion that has evolved to protect organisms from contamination by eliciting a strong urge to avoid disgust-elicitors. Therefore, in order to prevent feeling intense disgust, individuals with a RBI may avoid specific memories by aborting generative memory searches at an early level of semantic-categorical representations (e.g., "I always look gross at the beach"), that are devoid of intense disgust. Since autobiographical memories serve as a crucial source of how people define themselves, a bias towards RBI-congruent over-general memories will likely affirm and maintain the schematic RBI by obstructing the processing of potentially corrective information. To test whether a RBI indeed promotes RBI-congruent and over-general autobiographical memory processing, we asked women with high (H-RBI) and low (L-RBI) RBI levels to retrieve memories in response to 10 abstract (aiming to trigger generative retrieval processes) body-related cue words (e.g., 'attractive') in a Minimal Instructions Autobiographical Memory Task. Participants were then exposed to their memories and asked to rate the content (evaluation of their own body) and specificity of each memory. Motivation to prevent experiencing disgust was measured by a newly developed self-report questionnaire. The data collection has been finalized but the results of the study have not been analyzed yet and will be presented at the conference for the first time. We predict that the H-RBI group will recall a higher proportion of memories with RBI-related content, will show a stronger habitual motivation to prevent experiencing disgust, and will recall fewer specific memories than the L-RBI group. We further hypothesize that stronger disgust prevention will be predictive of lower memory specificity, especially in the H-RBI group. The results will be discussed in light of the assumption that autobiographical memory processes maintain cognitive schemas about the self (and body).

#### **Eating Disorders, Multi-Level Models of Emotion and Disgust**

**John R.E. Fox, Cardiff University, United Kingdom**

Eating Disorders are notoriously hard to treat and current models only show approximately 60% recovery rates. It is argued that current models of treatment of eating disorders, especially AN, are in need of further theoretical development. This presentation will present a series of studies that have looked at emotions in eating disorders and how these have led to the development of the SPAARS-ED (Fox, Power and

Federici, 2012). People with eating disorders have significant difficulties with their emotions and there may be evidence for anger and disgust being potentially ‘coupled’ within individuals with eating disorders. In one of these studies, the anger induction led to an increase in reported levels of disgust and an associated increase in body size. Another crucial aspect of the SPAARS-ED model is that it proposes that emotions, including self-disgust, can become operationalized as a ‘voice’ that is directed at the self. The final part of this presentation is a discussion of some of our recent studies that have looked at working with the ‘anorexic voice’ and how this maybe a fruitful area for treatment development.

## **Symposia 12: Intellectual & Developmental Disabilities**

### **Cognitive Behavioral Therapy for Children and Adults with Intellectual Disabilities: Developments in Research and Practice**

**Convenor: John Taylor, Northumbria University, United Kingdom**

**Chair: John Taylor, Northumbria University, United Kingdom**

**Discussant: Richard Hastings, University of Warwick, United Kingdom**

#### **Fearless Me!: A Pilot Randomised Controlled Trial of an Innovative Treatment Program for Children with Intellectual Disability and Anxiety**

**Anastasia Hronis, University of Technology Sydney, Australia**

**Rachel Roberts, University of Adelaide, Australia**

**Lynette Roberts, Alice Shires & Ian Kneebone, University of Technology Sydney, Australia**

**Aim:** Up to 50% of children with intellectual disability (ID) have a comorbid mental illness, yet to date, there has been a lack of evidence-based treatments for this population. The Fearless Me! program is a Cognitive Behaviour Therapy (CBT) program which has been developed specifically for children with ID. The current study aimed to assess the feasibility of the Fearless Me! program and its effect on anxiety in children with mild to moderate ID, or intellectual functioning in the borderline range.

**Design:** A pilot Randomized Controlled Trial (RCT) with two groups: intervention and waitlist control.

**Method:** Participants were children with mild or moderate ID, or borderline intellectual functioning, between the ages of eight and eighteen. The Fearless Me! therapy program is multimodal, and includes face to face sessions along with an online platform to support practice of CBT skills. The participants attended an initial assessment where children and parents completed measures of anxiety, quality of life, emotional development, and intellectual functioning. Following this, participants completed ten individual face-to-face therapy sessions, and a post-intervention assessment.

**Results:** Preliminary results indicate that the program is feasible to be run in an individual therapy setting for children with ID. Full pre post results will be presented.

**Conclusion:** It is hoped that this trial will provide the basis for a definitive investigation supporting the use of Fearless Me! program for anxiety in children with ID and support the establishment of CBT treatments for other emotional disorders in this population.

#### **Transdiagnostic CBT in the Treatment of Mental Health Difficulties for Individuals with Intellectual Disabilities - a Manualised Approach**

**Markku Wood, University of Technology Sydney, Australia**

Trans diagnostic approaches to cognitive treatments are developing across age range and disorders including those that are comorbid with Intellectual Disabilities (ID). This presentation will set out where the research is up to in respect to trans diagnostic CBT and then present the progress of the current study relating to the development and evaluation of a trans-diagnostic treatment manual for CBT in people with ID. The current study builds on the preliminary controlled trial conducted by (Lindsay, Tinsley, Beail, Hastings, Jahoda, Taylor & Hatton, 2015). The development and initial findings of the study will be presented and implications for future research discussed.

#### **Controlled Evaluation of an Adapted DBT Skills Intervention for Adolescents with Autism in a School Context**

**Stefanie Hastings, Bangor University and Betsi Cadwaladr University Health Board, United Kingdom**

**Michaela Swales & Carl Hughes, Bangor University, United Kingdom**

**Hannah Conway & Sarah Heckel, Corley Centre, United Kingdom**

**Richard Hastings, University of Warwick, United Kingdom**

**Introduction -** Although emotional regulation difficulties for young people with autism may lead to problems in school, there have been few school-based evaluations of interventions that may help young people to manage their emotional responses. Dialectical Behaviour Therapy (DBT) has been developed primarily to assist with problems of emotional dysregulation, and has been applied to a variety of clinical populations including individuals with developmental disabilities. The purpose of the present study was to develop a DBT small group skills-based intervention (DBT-SMART) for adolescents with autism and to carry out an initial evaluation in a school setting.

**Method -** 19 adolescents with autism (ages 11-16 years; 11 male, 8 female) attending an autism specialist school received the DBT-SMART intervention in the classroom context. DBT-SMART is a 12 lesson DBT skills intervention focused on emotion regulation and mindfulness. Lesson plans for the intervention were developed with teachers, and teachers were trained to deliver the intervention and received email supervision support during the course of the study. Outcome measured for the young people included (all self-reported) the Glasgow Anxiety Scale (GAS), the DERS (Difficulties of Emotion Regulation Scale), and the CAMM (Child and Adolescent Mindfulness Measure). The DERS and CAMM response scales were adapted to facilitate self-reports from the young people with autism.

**Results -** Paired samples t-tests were used to examine pre-post intervention changes in the young people's self-reports. There was no change in anxiety scores ( $t = .77, p = .453$ ), and no change in DERS scores ( $t = .07, p = .948$ ). There was a small effect size (approximate  $d = .30$ ) but non-significant increase in CAMM scores ( $t = 1.22, p = .243$ ). Anecdotal reports from teachers ( $n = 4$ ) were positive about DBT-SMART and teachers reported that the young people liked the skills teaching and used some of the skills in their time at school. However, they found it difficult to fit the lessons into the school timetable and reported that some of the materials could be amended for future presentation.

**Discussion -** A DBT skills short curriculum was developed successfully with teachers for use with young people with autism. However, the experience of delivering the intervention suggests that further adaptations are needed to enhance the feasibility of delivery in school settings.

Adolescents with autism reported increased mindfulness skills but no improvement in anxiety or emotion regulation difficulties from pre- to post-intervention.

Conclusions - This initial study suggests that DBT-SMART may have potential to teach emotion regulation skills to young people with autism in a school context. More robust evaluation designs are required in future.

### **The Evidence for Behavioural and Cognitive Therapies for People with Intellectual Disabilities – Where Are We up to?**

**John Taylor, Northumbria University, United Kingdom**

Background: in the UK, the National Institute for Health & Care Excellence (NICE) recently reviewed the evidence concerning interventions for challenging behaviour and mental health problems in people with intellectual disabilities (ID). Clinical guidelines were then produced to assist clinicians and service users in making decisions about appropriate treatment. They are derived from the best available research evidence and are intended to improve the process and outcomes of healthcare

Method: The evidence identified in the NICE guidelines to support behavioural and cognitive interventions for people with ID is described along with the key recommendations concerning treatment for behavioural and mental health problems in this population. A more inclusive analysis of the quantity and quality of the evidence to support interventions for challenging behaviour is presented to highlight the complexity of decision-making about appropriate treatment in this heterogeneous population.

Results: The quality of the evidence identified in the NICE guidance to support behavioural and cognitive therapies for people with ID is generally considered to be limited. However, a broader review of the literature suggests that, in terms of challenging behaviour, there a weight of evidence available to support behavioural interventions for particular groups of service users; and whilst the quantity is limited, the quality of evidence to support cognitive behavioural interventions for some service users is reasonable.

Conclusions: The NICE approach to identifying and rating research evidence is rigorous but rigid and can lead to what some might consider somewhat narrow recommendations. A broader approach to reviewing evidence leads to more nuanced conclusions about the effectiveness of behavioural and cognitive interventions for people with ID.

### **Symposia 13: Family, Relationship & Sexual**

#### **Unequal Life Chances Within the Same Family: Need for Intervention?**

**Convenor: Martin Diewald, Bielefeld University, Germany**

**Chair: Martin Diewald, Bielefeld University, Germany**

#### **Interdisciplinary Perspectives on Unequal Life Chances Within the Same Family: The Relevance of the Within-Family Perspective**

**Martin Diewald, Bielefeld University, Germany**

Inequality research has almost exclusively focused on between-family comparisons. Also most equal opportunity policies aim at compensating opportunity differentials between unrelated individuals (e.g., gender) or members from different families. However, the comparably few sibling analyses have convincingly demonstrated that within-family inequalities count for almost half of the overall inequality in educational and occupational attainment. Moreover, also at the 'dark side' of the inequality structure, when focusing on mechanisms creating disadvantage, discrimination, maltreatment and bullying, within-family disparities have been shown to be widespread. Other than the cliché of the family as hoard of solidarity lets assume, the family is also the place where lifelong scars have their point of origin.

However, whether opportunity hoarding as well as repression taking place within the family are social facts that offend our social justice perceptions and call for intervention – this depends on our understanding of the substantive mechanisms at work, which are located in parent-child as well as sibling relationships in different family types. To discuss this I address perspectives from sociology, psychology, economics, and human biology including social genomics. Four central mechanisms are proposed to provide an overarching framework: enhancement, triggering of vulnerabilities, control, and compensation. I will link the scientific state-of-the-art to ongoing debates about opportunities and limits of modern parenting. Open questions will be defined which call for our attention when thinking about enabling and protective policies.

#### **Consequences of Mobbing Among Siblings**

**Joerg Fegert & Andreas Witt, Universitätsklinikum Ulm, Germany**

Besides peer relationships, sibling relationships represent important developmental contexts for children and adolescents. Sibling relationships cannot be chosen, but people are born into them. They represent the most enduring relationships and can be marked by affection and support, but also by violence and envy. Positive peer relationships may contribute to a positive development and wellbeing. But rivalry and conflicts are also part of sibling relationships. A substantial proportion of children and adolescents report to being victims of sibling bullying on a weekly basis. While a considerable number of studies on bullying among peers exist, far less is known about sibling bullying. The few studies on the prevalence of sibling bullying report a prevalence of 15 – 50% for being a victim of sibling bullying and 10 – 40% for being a perpetrator of sibling bullying. Victims of sibling bullying also have a higher risk for being victims of peer bullying. The consequences of sibling bullying are comparable to those reported for peer bullying and include an increased risk for emotional problems, depressive symptoms, self-harming behavior and psychotic disorders. Based on the impact of this issue, sibling bullying should be part of the diagnostic process and intervention and prevention measures are necessary.

#### **Prevention of Discrimination by Association – Equal Participation Through Social Assistance**

**Katja Nebe, Martin-Luther-Universität Halle-Wittenberg, Germany**

Unequal treatment or unequal opportunities among siblings can be a consequence of different care dependency. Regarding the different age-related abilities and the need for assistance involved, this is a phenomenon that seems to concern every family as it has been sociologically examined (within families).

Inside the intrafamilial distribution of resources, it is significantly less frequently investigated, if a sibling needs more support of its parents due to its chronic disease or disability. Because of the particular attention paid to the special child within the family, a sibling finds itself frequently in the position of the "overshadowed child".

The domestic law, especially the anti-discrimination law and the social law, primarily addresses the needs and protection of the disabled child. Additionally, the law contains regulations on the necessary support of parents.

Without reducing the benefits, even partially, the perspective of the siblings has to be examined. Since they are not disabled themselves because of the illness or disability of their sibling, they are not in possession of the legally protected characteristic. Nevertheless, they can be discriminated against because of a disability - namely in their role as so-called “connected” or “associated” person. Based on the nondiscrimination rule of the Employment Equality Framework Directive (2000/78/EC), the European Court of Justice ruled that an “associated discrimination” on grounds of a disability is prohibited (Case Coleman). This particular decision dealt with the rights at work of a mother of a disabled child.

The risk of associated discrimination of siblings of disabled children has to be taken into account in several ways. Firstly, it is about the risk that, for the benefit of the disabled child, the healthy child gets reduced attention. Furthermore, it is about general limitations of individual resources of the parents because of the special care of the disabled child. Finally, it is about the permanent circumstances, which are induced by the physical, mental, emotional or sensory impairment of the sibling.

On the one hand, family life with disabled siblings can strengthen individual competencies, but on the other hand, it can jeopardize the chances of participation. In order that the healthy sibling can equally use its chances of participation, its needs must be taken into account when granting reasonable accommodation and benefits to the parents, respectively to the disabled child. Siblings are for disabled children not only contextual factors, which may foster or inhibit their inclusion, but have unperceived rights themselves.

### **Discordant Siblings and Twins: The Role of Family Events and Unequal Treatment of Children**

**Volker Lang & Lena Weigel, Bielefeld University, Germany**

Research demonstrates that the influence of negative family events like job-loss or divorce on children’s development differs not only between families, but also between siblings within the same family. It is an open research question in how far these within family-differences in effects are due to different development stages of siblings, differences in the perception of such family events by siblings, or a differential susceptibility of siblings to such environmental influences. Further, it is not clear to what extent these differences are grounded in the genetic endowment of children and to which degree they can be moderated through an unequal treatment of siblings by parents. To address this research gap, our paper studies the effects of negative family events on different measures of sibling’s confidence as well as deviant behavior using longitudinal twin-family data of the German Twin Family Panel (TwinLife). We apply twin-family fixed-effects models to differentiate between the different potential influences of family events. First, to address the relevance of different developmental stages, we analyze data on pre- as well as post-adolescent children and compare twin-pairs with their siblings. Second, to look at the effects of different perceptions, we include measures of the impression of family events by children in our analysis. Third, to tease out the influences of genetic endowments, we compare estimates for monozygotic and dizygotic twin pairs. Fourth, we additionally assess the moderation of the effects of family events through unequal treatment of siblings by parents using related measures. Overall, our study enables a more fine grained assessment of within-family differences in the developmental consequences of negative family events.

### **Depression in Couples: New Developments in Research and Treatment**

**Convenor: Melanie Fischer, Heidelberg University Hospital, Germany**

**Chair: Melanie Fischer, Heidelberg University Hospital, Germany**

**Discussant: Donald H. Baucom, University of North Carolina at Chapel Hill, USA**

### **Perceived Fairness of Dyadic Coping in Adolescent Couples and its Links to Depression and Relationship Satisfaction**

**Anne Milek, Wilhelms-Universität Münster, Germany**

**Christina Breitenstein, Corina Sager & Guy Bodenmann, Universität Zürich, Switzerland**

In adult couples, perceived fairness of how couples deal with stress together (i.e. dyadic coping) has been shown to be predictive for relationship satisfaction. However, it is unclear whether this association can also be observed in adolescent couples, who do not yet live together and hence do not share the same daily stressors. In this study, 124 adolescent couples (248 individuals; aged between 16 and 21 years; in a relationship for at least one year) filled in questionnaires on dyadic coping, relationship satisfaction and reported on depressive symptoms. Fairness of dyadic coping was operationalized using two different indices in order to test both the assumptions of the equity theory of Walster, Berscheid and Walster (1973) and the interdependence theory of Thibaut and Kelley (1959). The results of the actor-partner interdependence models showed different patterns in positive and negative dyadic coping: The perception of receiving more positive dyadic coping from the partner than one performs oneself tended to be positively associated with relationship satisfaction. Perceived unfairness in negative dyadic coping correlated with less relationship satisfaction and more depressive symptoms. There were no gender differences. The findings suggest that both the quality of dyadic coping and the perceived fairness of support between partners are relevant in adolescent couples.

### **Yours, Mine, and Ours: Depression and Moment-by-Moment Emotion Dysregulation in Couples**

**Melanie Fischer, Heidelberg University Hospital, Germany**

**Brian R. W. Baucom, University of Utah, USA**

**Donald H. Baucom & Danielle M. Weber, University of North Carolina at Chapel Hill, USA**

**A. K. Munion, University of Utah, USA**

**Daniel J. Bauer, University of North Carolina at Chapel Hill, USA**

Interpersonal difficulties are common in individuals with depression, and close relationships such as with a partner or spouse can be affected in profound ways. For example, relationship distress and depression are predictive of each other both cross-sectional and longitudinally. Additionally, individuals with psychological disorders benefit less from social interactions than healthy individuals. In healthy couples, the relationship fulfills important emotion regulation functions; that is, individuals are able to turn to their partner and share the emotional load while going through a difficult time. However, it remains unclear how moment-by-moment interpersonal emotion regulation processes differ (in potentially maladaptive ways) when symptoms are present. We expected that couples with higher depressive symptoms would demonstrate weaker regulatory processes and greater dysregulation between partners, and that these effects would be strengthened with more severe relationship distress.

The current study examined couple’s emotion coregulation and dysregulation as a function of depressive symptoms during couple conversations in a transdiagnostic sample of opposite-sex couples with a range of relationship satisfaction (N = 395). The sample included couples without any psychological disorders and couples who were recruited based on one partner’s diagnosis of depression, obsessive-

compulsive disorder, anorexia nervosa, or binge eating disorder. Couples completed recorded 7-15 minute problem conversations. Emotional arousal was intensively measured based on vocal features during the conversations (fundamental frequency, f0), which has important communicative functions in relationships and is highly correlated with perceived pitch. Integrative Data Analysis was used to derive a measure of depression and relationship satisfaction based on self-report measures across studies. Data were analyzed using cross-lagged actor-partner interdependence models and coupled oscillator models in MLM.

Preliminary results suggested that when women had more severe depressive symptoms, men had higher overall arousal, were more reactive to women's arousal on a moment-by moment basis, and their arousal was more persistent throughout the conversation (e.g., if his arousal increased, it was more likely to remain high). In addition, when women were more depressed, men had a stronger dysregulating influence on women, reflected in increasing amplitude of her oscillations (ups and downs of emotional arousal) as the conversations proceeded. These results suggest an overall dysregulating pattern for both men and women when women are more depressed. Analyses examining moderating effects of relationship satisfaction will be presented as well. Clinical implications for our understanding and treatment of depression in an interpersonal context will be discussed.

### **Postnatal Depressive Symptoms and Parenting in Couples: Examining Spillover, Crossover and Compensatory Processes** **Hanne Norr Fentz, Aarhus University and TrygFonden's Centre for Child Research, Denmark**

**Tea Trillingsgaard, Aarhus University, Denmark**

The literature on postnatal depression and its correlates within infant parenting has primarily focused on mothers, although depression in fathers is consistently found to be an issue as well. To date, we know little about depression in fathers and the between-parents processes in infant parenting. In the current study, we examined actor and partner effects of postnatal depressive symptoms on parenting stress, attachment-related feelings, and involvement in childcare tasks using an actor-partner interdependence framework (Kashy & Kenny, 2000). The sample consisted of 367 married or cohabiting first-time mothers and fathers who filled in online questionnaires at 10 months postpartum. For both parents, results showed significant actor effects of depressive symptoms on both elevated parenting stress and lowered attachment-related feelings. For fathers only, an actor effect was found for depressive symptoms on reduced involvement in childcare tasks. Overall, results indicated significant partner effects from maternal depressive symptoms to all aspects of fathers' parenting, while no partner effect was found from paternal depressive symptoms to mothers' parenting. Specifically, and in line with the fathering vulnerability hypothesis, we found that maternal depressive symptoms were linked with elevated paternal parenting stress and lowered paternal attachment-related feelings towards the child. However, maternal depressive symptoms were also linked with increased father involvement in childcare tasks, the latter pointing to a paternal compensatory strategy rather than vulnerability. How paternal depression might affect maternal parenting seems to not be captured by our measures or in this specific sample, which points to an important area of further research. Overall, these results confirm that a strong link (i.e. spill-over processes) exists between own experience of depressive symptoms and own parenting for both mothers and fathers. Furthermore, this study indicates that mothers' depressive symptoms, more strongly than fathers', negatively influence aspects of paternal parenting (i.e. cross-over processes). For health care professionals, increased knowledge on the link between depressive symptoms and dyadic parenting processes is important to augment preventive interventions that target both mothers and fathers during early childhood.

### **First Results of a Cognitively-Based Compassion Training for Depressed Females and Their Partners**

**Corina Aguilar-Raab & Marco Warth, Heidelberg University Hospital, Germany**

**Marc Jarczok, Ulm University Medical Center, Germany**

**Friederike Winter, Martin Stoffel & Beate Ditzen, Heidelberg University Hospital, Germany**

Compassion-based interventions can significantly impact the physical and mental health of individuals. Yet, only few studies have examined the effects of compassion in a burdened social context. The mental state of individuals and the quality of the social relationship influence each other: mental distress leads to poorer relationship quality and vice versa and this in turn is related to negative health parameters such as altered stress- and immune responses. To date, no study psychobiologically evaluated a compassion-based multi-couple intervention in depression.

Therefore, we assume that a cognitively-based compassion training (CBCT®) adapted for depressed couples will increase interpersonal skills and at the same time individual distress which in turn would be associated with an altered psychobiological stress-response during a instructed positive social interaction paradigm in the laboratory.

Until the beginning of 2019, 45 depressed couples were randomly assigned to either a 10 week CBCT® for couples- or treatment as usual-group (TAU). Pre-post-assessments included several diagnostics, self-report assessments and psychobiological evaluations especially on the level of cognition processes (eye tracking) and saliva cortisol and alpha amylase responses during a instructed interaction. Repeated measures analyses of variance were calculated to test for differences between the two groups from pre-to-post intervention, with a focus on the interpretation of effect sizes in this preliminary analysis.

Expected outcomes were observed with regard to the reduction of depressive symptoms and partner burden as well as quality of relationship following the CBC-Training® and compared to TAU. Its association with stress-response in the laboratory will be discussed.

Despite the preliminary character of the analysis, results indicate that CBCT® adapted for depressed couples has an impact not only on mental but also on physical health parameters relevant for healthy relationships.

### **Developmental Outcomes of Children in Prevention Trials: Long-Term Effects**

**Convenor: Nina Heinrichs, University of Bremen, Germany**

**Chair: Robert McMahon, Simon Fraser University and B.C. Children's Hospital, Canada**

### **Prevention of Child Mental Health Problems in Southeastern Europe: Results from Phase One of a Multiphase Optimization Strategy Study (RISE)**

**Heather Foran, University of Klagenfurt, Austria and the RISE Consortium**

Parenting programs represent an evidence-based approach for reducing child mental health problems in high-income countries, but in low- and middle-income countries (LMICs), gaps in evidence remain. Research evaluating program implementation, sustainability, and scale-up of parenting programs considering cultural context is needed. The RISE study, funded by the EU Horizon 2020 research and innovation program, takes an implementation science approach to adapting, testing, optimizing and extending the Parenting for Lifelong Health (PLH) program in three LMICs in southeastern Europe. The PLH program was developed specifically for low resource areas with a focus on



adaptability and implementation. The RISE study uses the Multiphase Optimization Strategy (MOST) and the RE-AIM framework to systematically adapt and evaluate the PLH program for parents of children ages 2 to 9 years old in three phases (Preparation, Optimization, and Evaluation). The first phase, recently completed, involved a pilot feasibility study in three countries (N = 140). The second phase, currently underway, involves an optimization study followed by a randomized controlled trial of the optimized intervention in phase 3. The results of phase 1 will be presented. This involved preparation and adaptation of the PLH program in the Republic of Moldova, Romania, and Macedonia and a pre-post feasibility study with 140 parents. Baseline assessments found parents with high levels of socioeconomic disadvantage, high level of stress in mothers, and elevated child behavioral symptoms. Pre-post analyses found medium to large decreases in harsh parenting, maternal depressive symptoms, and child mental health symptoms. Overall, results of the pilot feasibility study support the adaption and feasibility of the PLH program in three LMICs, and phase 2 and 3 trials will address questions regarding implementation outcomes and effectiveness in reducing child mental health problems.

### **Universal Prevention of Child Behavioral Disorders by Parent Training: 10-Year Effectiveness From Mothers', Fathers', and Adolescents' Perspectives**

**Kurt Hahlweg & Wolfgang Schulz, University of Braunschweig, Germany**

Background: Mental problems in children are widespread and cannot be reduced through treatment only. Prevention is therefore urgently needed although it is unclear how effective such strategies may be, particularly in the long term. Aim: Can a parent-centered universal prevention program that is effective in the short term also yield effects after 10 years? Method: According to their preschool location, N = 477 families were randomly assigned to the parent training prevention program (Triple P Positive Parenting Program, TP; Sanders, 2012) or the control group (CG). In all, 77% accepted the TP offer (T+), while 23% declined it (T-). The 10-year effectiveness of the program was established with self-report measures of mothers, fathers, and adolescents from N = 361 families. Results: The intention-to treat analysis (comparison TP vs. CG) yielded negligible findings. By contrast, the differential analysis from the T+ mothers' perspective found long-term improvements in Child Behavior Checklist (CBCL) internalizing and externalizing behavior and relationship satisfaction in comparison with CG and T- mothers. At 10 years, compared with pre assessment, T+ mothers reported the smallest increase in the CBCL sum score of internalizing and externalizing behaviors, 5%, while CG (20%) and T- (33%) mothers reported far higher rates. Contrary to the hypotheses, parenting behavior did not change over time. T+ fathers reported improvements in parenting behavior, while adolescents reported negligible outcomes. Conclusion: The results support the long-term effectiveness of the TP program as a universal prevention intervention, at least from the T+ mothers' perspective. More research should be conducted with the T- families because they showed worse outcomes than the control group.

### **Young Adult Outcomes from the Fast Track Project: Long-Term Prevention of Conduct Disorder**

**Robert McMahon, Simon Fraser University, B.C. Children's Hospital and Conduct Problems Prevention Research Group, Canada**

INTRODUCTION: Children with early starting conduct problem behaviors are at significant risk for negative outcomes in adolescence and adulthood, including serious conduct problems and criminal behavior, substance use, school dropout, risky sexual behavior, and other disorders (e.g. depression). These individuals cost society from 3.2 to 5.5 million \$ each. Increasingly, attention is focused on prevention as a more developmentally appropriate means of intervention rather than short-term and narrowly focused treatments.

Fast Track is a comprehensive, multisite intervention trial designed to prevent serious and chronic conduct problems. This collaborative project is being carried out by the Conduct Problems Prevention Research Group (K. Bierman, J. Coie, K. Dodge, M. Greenberg, J. Lochman, R. McMahon, & E. Pinderhughes) at 4 sites in the U.S. The Fast Track intervention was based on a developmental model positing the interaction of multiple influences (child, family, school, peer group, neighborhood) on the development of conduct problems. The intervention was implemented from grades 1 through 10. The elementary-school intervention phase was unique in combining targeted interventions (parent training, home visiting, child social skills training, child friendship enhancement, academic tutoring) for the highest-risk children with a universal intervention directed to the promotion of social and emotional competence for all children in the intervention schools.

METHOD: The high-risk sample consists of 891 children selected at kindergarten on the basis of high levels of conduct problems at both home and school. Children were randomly assigned to receive the Fast Track intervention (n=445) or services as usual in the schools (n=446). This sample is comprised of approximately equal numbers of African-American and White children, 69% of whom are male, living in urban, semi-urban, and rural areas. More than half of the children lived with a single parent and were low in socioeconomic status. The sample was followed annually from kindergarten through 2 years post-high school (age 20) and then again at age 25.

RESULTS: After providing a brief summary of the developmental model, intervention components, and findings through elementary and middle school, the presentation will focus on findings during late adolescence and young adulthood (through age 25). Both outcome and mediational analyses will be reported.

At age 25 (19 years after identification and 8 years after intervention ended), individuals assigned to intervention displayed lower prevalence of externalizing, internalizing, substance use problems; violent/drug crime convictions; risky sexual behavior; higher well-being. This held across 3 cohorts, 4 sites, male and female participants, African Americans and European Americans, moderate-risk and high-risk subgroups. Intervention did not have an impact on education or employment. Mediational analyses indicate the importance of early intervention effects on parenting and child social cognition as mediators of later outcomes.

DISCUSSION: A comprehensive, multicomponent developmental science-based intervention targeted toward early-starting conduct-problem children significantly reduced adult psychopathology and violent crime. Furthermore, theoretically-derived risk and protective factors mediate the effects of this long term preventive intervention.

### **The Role of Callous Unemotional Traits in Young Foster Children**

**Nina Heinrichs, University of Bremen, Germany**

**Daniela Ehrenberg, University of Braunschweig, Germany**

Callous-unemotional (CU) traits can be defined as "a lack of guilt, a lack of empathy, and shallow affect" corresponding to the affective component of psychopathy (Haws et al., 2014, p. 248). The concept contains considerable significance as numerous empirical studies demonstrated the strong association between CU traits and conduct problems of children and adolescents (see Frick et al. 2013). Further, there is evidence that CU traits may play a crucial role for results of parent interventions. Some studies demonstrated that higher CU traits were associated with increased conduct problems or oppositional defiant disorder at post or follow-up (Dadds et al., 2012; Hawes & Dadds, 2005; Hawes et al., 2013; Högström et al., 2013). In line with these results, CU traits were found to moderate intervention effects indicating that a family based intervention showed better outcomes for children with lower CU traits (e.g. Masi et al., 2013) or that the level of CU traits is a predictor for the responder status (Masi et al., 2013). One high risk group that includes individuals being more likely to show CU

traits (Humphrey et al., 2015) are foster children. This may make it challenging to design and deliver efficacious parenting interventions for caregivers of foster children. The presentation addresses the following question: Do CU traits predict change in foster children? A sample of young foster children (N=86) with foster parents randomly assigned to a new prototype of a parenting program (Taking Care Triple P) will be examined. Developmental outcomes were assessed with the Parenting Scale, the Child Relationship Inventory, and the Eyberg Child Behavior Inventory as well as the Preschool Anxiety Scale. CU traits were evaluated by parent report. Children were recruited within 24 months of their placement into foster care, and then assessed three times across approx. 1.5 years. CU traits were significantly predicting change only in anxiety 1.5 years later in all foster children. When including the interaction of CU traits with group membership, an interestingly similar pattern of results was observed across multiple outcome domains. Based on the results, the role of CU traits on the developmental outcome will be discussed.

### **Dissemination of Couple Relationship Distress Prevention and Intervention Programs**

**Convenor: Douglas Snyder, Texas A&M University, USA**

**Chair: Douglas Snyder, Texas A&M University, USA**

**Discussant: Donald Baucom, University of North Carolina at Chapel Hill, USA**

### **Evidence-Based Couple Relationship Enhancement (CRE) Programs in Germany: Progress in Dissemination and Implementation**

**Kurt Hahlweg, University of Braunschweig, Germany**

**Franz Thurmaier & Joachim Engl, Institute for Research and Education in Communication Therapy, Germany**

According to a nation-wide survey in Germany, the annual number of couples receiving CRE preventive interventions is estimated to be less than 1,500. Although about 90% of all interventions are subsidized by public funds, only about 37% are free of charge. Moreover, 65% percent of all interventions are self-developed by the provider and only very few are evidence-based. One exception is the EPL (Ein Partnerschaftliches Lernprogramm ["A Couples' Learning Program"]), adapted from PREP in 1985. Since then, EPL has been shown to significantly improve couples' long-term communication and reduce the divorce rate by 50%. At this time, EPL is the most empirically supported CRE program in Europe. Implementation and dissemination are as follows: The trainer-trainings for the EPL require about 2 to 2.5 days, and trainees need to pass an accreditation workshop to obtain an official certificate allowing them to conduct trainings. The current number of trainers in Germany and abroad (e.g., Austria, Switzerland, Sweden, Brazil, Czech Republic) is about 1,800, and the number of couples participating in an EPL training or its variants since 1985 is about 50,000. Latest developments in intervention variants of the EPL and the difficulties associated with providing ongoing supervision and continuous recruitment of couples will be discussed

### **Dissemination of the Prevention and Relationship Education Program (PREP) Across the Globe and Online**

**Howard Markman, Scott Stanley & Galena Kline Rhoades, University of Denver, USA**

As research on evidence-based Couples Relationship Education (CRE) programs in the United States have shown positive short- and longer-term positive effects on relationship health, there has been increasing interest in use of such programs in other countries and cultures. This presentation will focus on the most popular and best researched program, the Prevention and Relationship Education Program (PREP), an evidence-based program designed to increase chances of couples having a healthy and happy marriage. The PREP approach is based on over 35 years of basic science and outcome research in the field of marital health. Thus far, over 20,000 trainers from 28 countries have been trained in the delivery of PREP. PREP has been widely used in all branches of the U.S. military since 1991 and is the original program underlying the U.S. Army's Strong Bonds initiative. Examples of countries in which versions of PREP have been adapted and implemented include Germany and Austria (with Kurt Hahlweg, evolving into EPL), Australia (with Kim Halford, evolving into Couple-CARE), Norway (with Modum Bad, adapted similarly for use in Denmark and Sweden), as well as recent adaptations in Israel, Estonia, Chile, Colombia, Iran, Russia, the United Kingdom, Singapore, and Qatar. Online adaptations of CRE have also been developed (see [Lovetakeslearning.com](http://Lovetakeslearning.com) (based on PREP) and [OurRelationship.com](http://OurRelationship.com)). The current presentation will address challenges in disseminating research-based relationship education programs across cultures and countries and will offer recommendations for best practices.

### **Dosage and Timing of Relationship Education Programs: Findings from the Couples Coping Enhancement Training Program**

**Guy Bodenmann, University of Zurich, Switzerland**

Relationship education programs have been shown to be effective in several meta-analyses. Nevertheless, more recent studies and theoretical contributions address the question of which couples benefit most from such interventions and what kinds of risk factors (personal, dyadic, social, economic) might moderate couples' response. In addition to the risk factor issue, the dose of intervention needed to have an effect is also an important aspect warranting further investigation. This talk will address questions of how much intervention is needed with regard to face-to-face relationship education workshops as well as online-programs, and special opportunities for impact such as when couples become parents. Three studies addressing these questions will be described: one based on different formats of intensity (dosage) of a workshop (Couples Coping Enhancement Training), one based on online-intervention, and one with couples in the transition to parenthood. Implications of findings for further research will be discussed.

### **Development of Effective Relationship Education for Same Sex Couples: Rainbow Couple CARE**

**Kim Halford, University of Queensland, Australia**

**Christopher Pepping & Anthony Lyons, La Trobe University, Australia**

**John Pachankis, Yale University, USA**

Same sex couples face similar challenges as heterosexual couples in sustaining a mutually satisfying relationship, and face additional challenges as the result of homophobic discrimination (minority stress). This presentation will describe development of a relationship education (RE) for gay and lesbian couples that addresses issues of minority stress. The presenter and his colleagues conducted two studies. The first was an online consumer consultation survey of 519 gay and lesbian adults on their views about RE, and perceived benefits and barriers to RE attendance. Most respondents reported they had never accessed RE, but would like such access. Barriers to accessing RE were seen to be time, the lack of expertise of service providers in couple relationships and LGB issues, and possible homophobic discrimination. The second study was a small pre- and post-RE evaluation of Rainbow Couple CARE, a modified version of the evidence-based Couple CARE program that included addressing minority stress. Participants completed measures of relationship satisfaction and individual well-

being before and after RE. Rainbow Couple CARE was associated with moderate to large increases in relationship satisfaction ( $d = .63$ ), relationship dedication ( $d = 1.05$ ), and positive affirmation of gay identity ( $d = .78$ ). Considered together, these findings affirm a desire for access to RE in the gay and lesbian community, and provide preliminary support for a tailored RE program aimed at enhancing same-sex relationships.

#### **Dissemination of Integrative Behavioral Couple Therapy Through the U.S. Department of Veterans Affairs and Online**

**Andrew Christensen, University of California, USA**

**Brian Doss, University of Miami, USA**

**Shirley Glynn, Office of Mental Health, USA**

Integrative Behavioral Couple Therapy (IBCT) is an evidence-based treatment for couple distress that has been validated in several clinical trials. In 2010, the U.S. Department of Veterans Affairs (VA) adopted IBCT as one of its evidence based-treatments. Since then, approximately 500 VA therapists have entered the 6-8 month training program in IBCT with almost 80% completing it. Over 700 couples have received some treatment with these in-training therapists. Compared with the couples in the clinical trial samples, results indicate that these VA couples may be more complicated to treat (e.g., more individual psychopathology, higher rates of unemployment or disability, more medical complications, personal preference for a shorter treatment course) and achieve statistically significant but more limited improvement in couple satisfaction at the end of treatment (low to moderate effect sizes versus moderate to large effect sizes). Beginning in 2009, Dr. Brian Doss and Dr. Christensen adapted IBCT into a 6-8 hour online program for couples (see [www.OurRelationship.com](http://www.OurRelationship.com)). A nationwide randomized clinical trial of 300 participants comparing the online program with a waitlist control group indicated significant improvements in relationship satisfaction with medium effect sizes for the online program. These effects largely persisted through a one-year follow-up. Recently Doss and colleagues adapted the online program for low-income couples and are currently conducting a clinical trial examining its effectiveness in this group. This presentation will discuss recent findings from both efforts at dissemination.

#### **Parenting Interventions at the Transition to Parenthood: Preliminary Findings from Feasibility Studies and Full Trials**

**Convenor: Anja Wittkowski, The University of Manchester, United Kingdom**

**Chair: Anja Wittkowski, The University of Manchester, United Kingdom**

**Discussant: Alina Morawska, The University of Queensland, Australia**

#### **Parenting Interventions at the Transition to Parenthood: The Evidence for Baby Triple P**

**Alina Morawska, The University of Queensland, Australia**

Baby Triple P focuses on positive parenting at the transition to parenthood and throughout the first twelve months of life. It aims to give babies a healthy start in life by enhancing their parent's knowledge, skills and confidence in early parenting practices. In addition, it intends to protect the mental and emotional wellbeing of men and women as they become parents. This presentation will provide an overview of Baby Triple P as well as a summary of evidence to date. A number of trials of the program have been conducted, and this presentation will provide a critical analysis of the existing evidence base. The challenges of testing the intervention and future directions for program development and research directions will be discussed.

#### **The IMAGINE Study: The Feasibility and Acceptability of Baby Triple P for Mothers with Severe Mental Health Problems**

**Anja Wittkowski, The University of Manchester, United Kingdom**

**Paula Duxbury, Greater Manchester Mental Health NHS Foundation Trust, Manchester**

**Richard Emsley, King's College London, United Kingdom**

**Penny Bee, Elizabeth Camacho, Rachel Calam & Kathryn Abel, The University of Manchester, United Kingdom**

**Paula Gomez and other co-authors, Greater Manchester Mental Health NHS Foundation Trust, United Kingdom**

##### **Background:**

Maternal mental illness has a significant impact on the woman, her family and child. In the United Kingdom, 10-20% of women develop mental health problems during pregnancy or within the first year of having a baby, and 1% of those women have a severe mental illness (SMI) or significant mental health problems requiring specialist psychiatric services. For example, of 698,512 women giving birth in 2013 in the UK, over 6,958 required admission to a Mother and Baby Unit (MBU) for assessment and treatment as suggested by the NICE guidelines.

While there is a strong evidence base for the benefits of parenting interventions for mothers without severe mental difficulties, further research on how best to support these mothers and their relationships with their babies is still required. As part of this presentation, Dr Anja Wittkowski will outline the feasibility and acceptability of conducting a randomised controlled trial (RCT) to evaluate a parenting and psychological intervention targeting the mother's and infant's wellbeing for mothers admitted to a MBU.

##### **Methods/Design:**

The IMAGINE study was a multisite, single-blind feasibility trial with half the participants randomised to the Baby Triple P Positive Parenting Programme plus Treatment as Usual (TAU) and the other half randomised to TAU alone. Participants were mothers admitted to one of two MBU in the UK. Participant eligibility criteria included: age  $\geq 18$  years, having at least one infant up to 12 months old or being in their third trimester and expecting MBU admission following delivery, being proficient in English to understand and provide informed consent to the study. Participants whose symptoms compromised their ability to concentrate on assessments or intervention sessions were excluded.

Outcomes were assessed via self-report and observed-rated measures at baseline, post-intervention (at 8-10 weeks) and 6 month follow-up. Acceptability of Baby Triple P was assessed via a Client Satisfaction Questionnaire administered to participants who received the intervention. Semi-structured interviews were conducted with participants randomised to the Baby Triple P intervention and with staff working on the MBUs.

##### **Results:**

Findings evaluating the feasibility and acceptability of the intervention and the study's design and procedures when run in this inpatient setting with a sample of mothers and MBU staff will be presented, along with the cost implications of running the intervention derived from a health economic analysis.

#### Discussion:

Although research has been conducted in relation to mothers with severe mental health problems, to our knowledge, this is the first controlled trial to test the feasibility, acceptability, uptake and retention alongside the potential efficacy of a parenting intervention for this population. As part of this study Dr Wittkowski will examine the contextual challenges involved in this particular setting with this population and identify any refinements required to future research.

#### **THRIVE: Trial of Healthy Relationship Initiatives for the Very-Early Years**

**Marion Henderson, University of Glasgow, United Kingdom**

**Anja Wittkowski, University of Manchester, United Kingdom**

**Alice McLachlan, Shona Shinwell & Catherine Nixon, University of Glasgow, United Kingdom**

##### Background:

Social adversity, maternal depression and anxiety during pregnancy may affect foetal brain development, increase infant reactivity to stress and impair sensitive mother-infant bonds developing. Additionally, social adversity and maternal mental ill-health have long-term effects on children's health, social and educational outcomes. Parenting interventions show promising improvements to child outcomes; however, there is little evidence of their efficacy in the UK.

##### Aim:

THRIVE will compare the impact of taking part in one of two antenatal parenting support programmes both incorporating cognitive behavioural therapy (Enhanced Triple-P for Baby (ETPB) or Mellow Bumps (MB)) with care-as-usual (CAU) on the mental health and maternal attunement of vulnerable mothers-to-be, as well as the socio-emotional, behavioural and language development of their children.

##### Design:

THRIVE is a three-arm randomised controlled trial. Vulnerable pregnant women are invited to participate (n=500). Participants are randomly allocated to ETPB + CAU, MB + CAU or CAU. ETPB consists of four weekly group-based antenatal sessions followed by up to 3 postnatal home visits and is completed with one postnatal group session. It aims to provide babies with a healthy start to life by combining parenting skills training with strategies to enhance individual wellbeing and couple adjustment. MB in comparison, comprises of seven weekly antenatal sessions and one postnatal session. It aims to decrease maternal stress, increase understanding of neonates' capacity for social interaction and emphasise the importance of early interaction for brain development and attachment. Recruitment to the trial begun in early 2014, with findings due to be published in 2019.

##### Results:

We will characterise our achieved sample (follow-up due to complete by early May 2010). As maternal mental health is highly correlated to infant mental health, the findings will include the baseline maternal mental health outcomes: Hospital Anxiety and Depression, Adult Wellbeing Scale and Brief Symptoms Inventory to identify the severity of symptoms.

#### **Symposia 14: New Developments**

##### **New Methods for Developing and Improving Psychological Therapies**

**Convenor: Simon Blackwell, Ruhr-Universität Bochum, Germany**

**Chair: Simon Blackwell, Ruhr-Universität Bochum, Germany**

**Discussant: Shirley Reynolds, University of Reading, United Kingdom**

##### **The Leapfrog Design: A Simple Bayesian Adaptive Rolling Trial Design for Treatment Development and Optimization**

**Simon Blackwell, Marcella Woud & Jürgen Margraf, Ruhr-Universität Bochum, Germany**

**Felix Schönbrodt, Ludwig-Maximilians-Universität München, Germany**

There is a pressing need to improve psychological treatment outcomes, either by developing new interventions or by improving existing ones. However, treatment development research is challenging and time-consuming, and the standard methods used are inefficient in terms of time, resources, and the sample sizes needed. The 'leapfrog' design provides an alternative methodology, adapted from designs developed initially within cancer research, and is intended to provide a means for accelerated treatment development and optimization within psychological treatment research. In this design, multiple treatment options are tested simultaneously, and sequential Bayesian analyses used to remove poorly performing arms. New treatment arms informed by the latest research findings can be introduced into the existing infrastructure as the trial progresses. Further, the design includes a mechanism for continuous treatment development and optimization, via replacement of the comparison arm (the arm against which all other arms are compared) by new treatment arms while the trial is ongoing. These features of the leapfrog design drastically reduce both the sample sizes and the time needed when testing multiple treatments or treatment variants. Additionally, they provide mechanisms to allow direct feeding-forward of experimental and other basic research into an applied clinical trial context in an efficient manner. This presentation will introduce the leapfrog design, using a hypothetical example to illustrate how such a trial would proceed. The ways in which the basic design could be adapted for use across a wide range of applications in clinical research will be discussed. A more detailed description and discussion of the leapfrog design is available at:

<https://psyarxiv.com/zywpr/>

##### **Combining Single-Case Experimental Designs with Experience Sampling to Assess Treatment Effects at the Individual Level**

**Evelien Snippe, University of Groningen, the Netherlands**

**Christopher J. May, University College Groningen, the Netherlands**

##### Introduction

Whereas traditional Randomized Controlled Trials (RCT) are useful to study the efficacy of a treatment at the group level, they not provide insight in whether a specific intervention works for a specific individual and the process of change during treatment. In this presentation, it will be demonstrated how the combination of single-case experimental designs (e.g., n-of-1 trials) and diary methods (e.g. experience sampling methods) can be used to assess the effectiveness of interventions at the individual level as well as the process of change. The methods will be illustrated using A-B-A-B single-subject experimental design to examine the effects of mindfulness meditation.

##### Methods

Forty-nine individuals from the general population participated in a A-B-A-B single-subject experimental study for 8 weeks. A control period of two weeks (phase A) was contrasted with a period of two weeks during which participants meditated for 15 minutes a day (phase B). Smartphone-based assessments were used to assess past-day negative affect, positive affect, and mindfulness during the experiment (56 days). Single-subject interrupted time-series analyses (ITSA) as well as a multilevel extension of ITSA were used to examine the effects of the meditation phases on affect and mindfulness. Change point analyses were used to demonstrate the timing of significant shifts in the distributions of the scores.

#### Results

On average, NA decreased significantly during the last phase of meditation in comparison with the previous non-meditation period. PA increased significantly in both meditation phases compared to the control phases. The intervention effects on mindfulness were less consistent. Single-subject ITSA showed that there were differences among individuals in the effects of meditation on PA, NA, and mindfulness. Change point analyses showed that change in the variables under study sometimes occurs simultaneously whereas differences in timing of change were also observed.

#### Discussion

Single-case experimental designs are especially valuable when one aims to test the efficacy of a specific aspect of an intervention (e.g., dismantling study), when aiming to pilot the efficacy of a particular method, when aiming to test efficacy of intervention for a specific patient in clinical practice, or when a traditional RCT is not feasible. Single-case experimental designs are less suitable for examining effects of interventions with a slow onset of action or interventions with irreversible effects.

#### Conclusion

The combination of single-case experimental designs and diary methods are ideally suited

to 1) investigate whether an intervention works and 2) to gain insight into the process of change during treatment.

### **The STEP Trial: A Sequential Multiple Assignment Randomised Trial (SMART) of Interventions for Ultra-High Risk of Psychosis Patients**

**Andrea Polari, Orygen Youth Health and The National Centre for Excellence in Youth Mental Health, Australia**

**Barnaby Nelson, Paul Amminger, Hok Pan Yuen, Julie Blasioli, Jessica Spark, Melissa Kerr & Patrick McGorry, Orygen, The National Centre of Excellence in Youth Mental Health, Melbourne, Australia**

#### Introduction

Previous research indicates that preventive intervention is likely to benefit patients “at risk” of psychosis, in terms of functional improvement, symptom reduction and delay or prevention of onset of threshold psychotic disorder. The primary aim of the current study is to test outcomes of ultra-high risk (UHR) individuals, primarily functional outcome, in response to a sequential intervention strategy consisting of support and problem solving (SPS), cognitive-behavioural case management (CBCM) and antidepressant medication.

#### Methods

This is a sequential multiple assignment randomised trial (SMART) recruiting from primary (headspace) and secondary/tertiary (Orygen Youth Health) mental health services in the North-Western area of Melbourne, Australia. It consists of three steps: Step 1: SPS (1.5 months); Step 2: SPS vs Cognitive Behavioural Case Management (4.5 months); Step 3: Cognitive Behavioural Case Management + Antidepressant Medication vs Cognitive Behavioural Case Management + Placebo (6 months). Response is evaluated with the Comprehensive Assessment of At-Risk Mental States (CAARMS) and the Social and Occupational Functioning Assessment Scale (SOFAS) and is determined at weeks 4, 6, 12, 24, 36, 52. Ratings are based on the participants’ experiences over the fortnight preceding the evaluation and are for the four positive symptoms of the CAARMS only (Unusual Thought Content, Non-Bizarre Ideas, Perceptual Abnormalities and Disorganised Speech).

Response is defined as a Global Rating Scale or Frequency score of any less than 3 (less than once a month to twice a week, more than one hour per occasion or 3 to 6 times a week, less than one hour per occasion) for all of the four positive symptoms and an improvement of at least 5 points in SOFAS compared with baseline or the SOFAS score is at least 70.

The intervention is of 12 months duration in total and participants are followed up at 18 months and 24 months post baseline.

#### Results

Recruitment is ongoing. 328 patients have been recruited as of December 2018. Preliminary results indicate that, of the participants that did not drop-out and reached the end of Step 1 or 2, there is a 90.2% non-response rate to Step 1 and 81% to Step 2. There is an 9.8% response rate in Step 1 and 19.0% in Step 2. The attrition rate is 22.0% in Step 1 and 30.0% in Step 2.

#### Discussion

Preliminary results indicate high non-response rates following SPS and moderate non-response rates following CBCM. Response rates are lower than expected in Step 1 and Step 2. Attrition rates are low to moderate in Step 1 and 2, possibly reflecting the complexity and severity of presentation of UHR individuals. Results related to response and non-response rates after Step 3 are not available currently because recruitment and follow-up are still ongoing.

#### Conclusion

It is feasible to recruit a high number of UHR individuals over a reasonably short period of time, in a staged multi-treatment trial. Results will inform the most effective type and sequence of treatments for improving psychosocial functioning and reducing the risk of developing psychotic disorder in this clinical population.

#### Additional Authors

Nicky Wallis, Lisa Dixon, Cameron Carter, Rachel Loewy, Tara A. Niendam, Martha Shumway, Sarah Morris

### **Using Factorial Designs to Dismantle Active Ingredients of Therapy: The IMPROVE-2 Trial**

**Ed Watkins, University of Exeter, United Kingdom**

A large amount of research time and resources are spent trying to develop or improve psychological therapies. However, treatment development is challenging and time-consuming, and the typical research process followed – a series of standard randomized controlled trials – is inefficient and sub-optimal for answering many important clinical research questions. In other areas of health research, recognition of these challenges has led to the development of sophisticated designs tailored to increase research efficiency and answer more targeted research questions about treatment mechanisms or optimal delivery. However, these innovations have largely not permeated into psychological treatment development research. There is a recognition of the need to understand how treatments work and what their active ingredients might be, and a call for the use of innovative trial designs to support such discovery (e.g., Craske et al., 2016). One approach to unpack the active ingredients and mechanisms of therapy is the factorial design as exemplified in the Multiphase Optimization Strategy (MOST) approach. The MOST design allows identification of the active components of a complex multi-component intervention (such as

CBT) using a sophisticated factorial design, allowing the development of more efficient interventions and elucidating their mechanisms of action. The rationale, design and potential advantages of this approach will be illustrated with reference to the IMPROVE-2 (Watkins et al., 2016) study, which conducts a fractional factorial design to investigate which elements (e.g., thought challenging, activity scheduling, compassion, relaxation, concreteness, functional analysis) within therapist-supported internet CBT are most effective at reducing symptoms of depression in 768 adults with major depression. By using this innovative approach, we can first begin to work out what components within the overall treatment package are most efficacious on average allowing us to build an overall more streamlined and potent therapy. This approach also has potential to distinguish the role of specific versus non-specific common treatment components within treatment.

## **Misophonia, in the Middle of the Crossroads**

**Convenor: I.J. Jager, Amsterdam University Medical Center, the Netherlands**

### **Misophonia: The First Large Sample Study from a Psychiatric, Somatic and Psychological Perspective**

**Nienke Vulink, Inge Jager, Tim Bost & Damiaan Denys, Amsterdam University Medical Center, the Netherlands**

Misophonia: the first large sample study from a psychiatric, somatic and psychological perspective

#### **Background**

Misophonia is a newly described condition in which patients experience anger when confronted with highly specific repetitive stimuli, like eating, breathing or tapping. Though there have been anecdotal reports and our previous clinical sample study (N = 42), there is an urgent need for detailed clinical data of a large sample of patients with misophonia.

#### **Methods**

In four years nearly eight hundred adult patients and sixty adolescents were referred to our hospital with suspected misophonia. All adults and adolescents were engaged in a threefold paradigm with a systematic psychiatric, somatic and psychological assessment.

#### **Results**

In 575 of 779 adult patients (74%) the diagnosis of misophonia was confirmed. Adult misophonia patients (69% females; mean age =  $34.2 \pm 12.2$  years) reported a gradual onset of misophonia symptoms during early adolescence ( $M = 13.2 \pm 7.5$  years). Adolescents with misophonia (73% female; mean age =  $15.2 \pm 1.5$  years) even showed an earlier mean age of onset ( $9.9 \pm 2.7$  years). We will give an overview of main triggering sounds, evoked emotions and avoidance strategies of adults and adolescents with misophonia. Besides ADHD and ASS no other comorbid disorders were found. In a subgroup of 109 participants hearing thresholds were obtained. 106 participants had bilateral normal hearing (97,2%) and 3 participants had a unilateral hearing loss (2,8%). Psychological assessment showed significantly increased scores on perfectionism and neuroticism, while quality of life was significantly decreased and correlated with severity of misophonia symptoms ( $p < 0.001$ ).

#### **Conclusion**

This is the largest and most thorough study up till now of 779 adults and 60 adolescents with misophonia symptoms. We show that misophonia is a distinctive disorder with specific symptoms, which start at an early age. Based on our psychiatric, somatic and psychological results we constructed a revised set of diagnostic criteria for misophonia as a psychiatric disorder.

### **Cognitive Behavioral Therapy for Misophonia: A Randomized Clinical Trial**

**Inge Jager, Arnoud van Loon, Nienke Vulink, Michel Hof & Damiaan Denys, Amsterdam University Medical Center, the Netherlands**

Cognitive behavioral therapy for misophonia: a Randomized Clinical Trial

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Importance: Misophonia is a recently described psychiatric phenomenon. Misophonia patients suffer from extreme anger or disgust when confronted with specific sounds, like smacking or breathing. Research has mainly focused on the clinical features, and there are little well-established, empirically supported treatments for misophonia. This is the first RCT for misophonia.

Objective: To evaluate the immediate efficacy of cognitive behavioral therapy (CBT) compared to a waiting-list control group and the long term effect (1 year follow up).

Design, setting, and participants: This evaluator-blinded randomized clinical trial was conducted from March 2017 to December 2017. The study setting was the outpatient clinic of an academic medical center in Amsterdam, the Netherlands. A total of 54 (pool of 69; 15 withdrew or were excluded) adult participants with misophonia (conform AMC 2013 criteria) was studied in a referred sample. Participants were followed up for 1 year.

Intervention: Study participants were randomly assigned to CBT or waiting-list control group. Treatment duration was 3 months with 7 weekly sessions of group therapy and 1 follow-up session, including 2 systemic sessions.

Main Outcomes and Measures: A priori planned primary outcomes were misophonia symptom severity assessed by the Amsterdam Misophonia Scale Revised (AMISOS-R) and clinical improvement (blinded observer ratings) on the Clinical Global Impression Improvement (CGI-I). Secondary outcomes were self-assessed ratings of general psychopathology (SCL-90) and quality of life (EQ5-D, SDS, WHOQOL-BREF).

Results: A total of 54 randomized participants was studied (mean age, 33.06 [SD, 14.13] years; 38 women [70.4%]) and 46 (85%) completed the study. Baseline characteristics were comparable across the 2 groups (baseline median AMISOS-R score, 29 [19-38] and CGI-S score, 5.35 [.81]). Primary intention-to-treat analyses showed CBT had a significant effect on misophonia symptoms (-28% AMISOS-R,  $p = 0.003$ ) with an observed clinical improvement in 37% (CGI-I  $< 3$ ,  $p = 0.001$ ). General psychopathology (SCL-90) was significantly decreased ( $MD = -22.65$  [SD, 10.00],  $p = 0.028$ ). The SDS Total score improved significantly ( $MD = -4.82$  [SD, 1.56],  $p = 0.004$ ) indicating less impairment. Per protocol analysis of pre, post and follow up assessment for both groups ( $n = 34$ ) showed the effect of CBT on misophonia symptoms was maintained at 1-year follow up (-24% AMISOS-R,  $p = 0.000$ ), as on all secondary outcomes (no significant changes at post to follow up).

Conclusions and Relevance: The results of this trial supports the efficacy of CBT for reducing misophonia symptoms in adults. Treatment effect is remained at one year follow up.

Trial Registration: [www.trialregister.nl](http://www.trialregister.nl) Identifier NTR6479

## **Human Locus Coeruleus Conflict Response Predicts Real-World Stress Resilience**

**Birgit Kleim, Ulrike Ehlert & Jan Breckwoldt, University of Zurich, Switzerland**

**Monika Brodmann & Aris Exadaktylos, University of Bern, Switzerland**

**Roland Bingisser, University of Basel, Switzerland**

**Christian Ruff, University of Zurich, Switzerland**

### **Introduction**

Stress and traumatic events are common features of life in modern societies. While some individuals succumb to stress and develop psychiatric symptoms others remain unaffected. The neural mechanisms underlying individual stress resilience predispositions are currently unknown.

### **Methods**

To determine possible mechanisms for stress resilience we obtained noninvasive measures (fMRI) of human locus coeruleus (LC) arousal system function in medical interns, a population at risk to develop depression and anxiety due to their stressful profession. Individual anxiety and depression symptom changes after 3 and 6 months internship were quantified relative to symptom baseline level prior internship using standardized questionnaires (STAI, PHQ). Stress related symptom changes were correlated with LC-responsivity measures obtained prior internship during performance of a classic conflict adaptation task. Individual stress resilience was predicted using out-of sample procedures.

### **Results**

Across 48 medical students (mean-age=24, female=28), individual LC conflict adaptation responsivity predicted anxiety- and depression scores three and six months into the internship (all  $Rho > 0.34$ , all  $p$  at least  $< 0.05$ , Spearman's  $Rho$ ). Out-of-sample predictions showed that observed and predicted anxiety and depression symptom severity were significantly related, both for the measures after 3 months and after 6 months (all  $Rho > 0.30$ ,  $p$  at least  $< 0.05$ , Spearman's  $Rho$ ).

### **Discussion**

Neural responsivity of the human LC predicted changes of anxiety and depression symptoms in response to real-life stress. These results are important for prevention and intervention purposes and help the development of diagnostic and therapeutic measures promoting resilience and mental health in medical students and potentially other professions.

## **Personality Disorders and Misophonia: The Roles of Anxiety and Depression**

**Zachary Rosenthal, Duke University Medical Center and Duke University, USA**

**Lisalynn Kelley, Duke University Medical Center, USA**

Misophonia is characterized by (a) intolerance of specific uncontrollable and repetitive sounds (e.g., people chewing loudly) and (b) acute anxious distress, anger, and aggressive ideation/behavior. Recent studies suggest misophonia symptoms may be broadly associated with higher psychopathology (Brout et al., 2018). However, no studies have examined the relationship between misophonia and personality disorders (PDs). Accordingly, the purpose of this pilot study is to begin investigating whether adults endorsing high misophonia symptoms can be characterized by higher personality disorder symptoms in general, or with particular personality disorder symptoms, specifically. The possible mediational role of anxiety and depressive symptoms was also investigated. A community sample of adults with high ( $n = 32$ ) and low ( $n = 16$ ) misophonia symptoms was assessed using structured diagnostic interviews (SCID-II) and validated self-report measures. Correlation analyses provide the first evidence that misophonia is associated with PD symptoms in general, and not to any one PD specifically. Misophonia severity was associated with symptoms Avoidant PD ( $r(48) = 0.32$ ,  $p < 0.05$ ), OCPD ( $r(48) = 0.37$ ,  $p < 0.01$ ), Paranoid PD ( $r(48) = 0.36$ ,  $p < 0.05$ ), Schizoid PD ( $r(48) = 0.30$ ,  $p < 0.05$ ), and Borderline PD ( $r(48) = 0.46$ ,  $p < 0.01$ ). Mediation analyses using bootstrapping methods indicated that anxiety symptom severity on the BAI partially mediated the relationship between PD symptoms and misophonia severity (Direct effect = 1.23, SE = 0.64,  $t = 2.29$ ,  $p < 0.05$ ; Indirect effect = 0.79, SE = 0.36, Bias Corrected 95% CI: LL = 0.13, UL = 1.55). In contrast, mediational analyses using depressive symptom severity on the BDI revealed no significant indirect effect of depressive symptoms on misophonia (Direct effect = 1.88, SE = 0.50,  $t = 3.74$ ,  $p < 0.01$ ; Indirect effect = 0.14, SE = 0.34, Bias Corrected 95% CI: LL = -0.57, UL = 0.82). Together, the results of this project suggest that: (a) PD symptoms across Cluster A, B, and C disorders are associated with higher misophonia, (b) anxiety symptoms (but not depressive symptoms) partially account for the relationship between PDs and misophonia. Results will be discussed with regard to clinical interventions targeting changes in PD symptoms and among those with misophonia.

## **Investigating Misophonia: A Review of the Empirical Literature, Clinical Implications, and a Research Agenda**

**Jennifer Brout, International Misophonia Research Network**

Misophonia is a neurobehavioral syndrome phenotypically characterized by heightened autonomic nervous system arousal and negative emotional reactivity (e.g., irritation, anger, anxiety) in response to a decreased tolerance for specific sounds. The aims of this review are to (a) characterize the current state of the field of research on misophonia, (b) highlight what can be inferred from the small research literature to inform treatment of individuals with misophonia, and (c) outline an agenda for research on this topic. We extend previous reviews on this topic by critically reviewing the research investigating mechanisms of misophonia and differences between misophonia and other conditions. In addition, we integrate this small but growing literature with basic and applied research from other literatures in a cross-disciplinary manner.

## **Beyond the Horse Race: Researching Internet Interventions for Mental Disorders**

**Convenor: Jan Philipp Klein, University of Lübeck, Germany**

**Chair: Gerhard Andersson, Linköping University, Sweden**

### **Factorial Trial Design in Internet Intervention Research**

**Gerhard Andersson, Linköping University, Sweden**

**Per Carlbring, Stockholm University, Sweden**

Numerous controlled trials have been published on the effects of internet-delivered psychological treatments for a range of problems and disorders. Generally, trials adhere to the CONSORT statement and include control groups. Often this is attention control, waitlist but also alternative treatments. In experimental psychology factorial designs is the common way to investigate research questions but in psychotherapy research this is rare given the need for large samples in order to have sufficient power to detect differential effects of

independent variables (like for example different versions of a treatment). With the advent of internet-delivered CBT (ICBT) this has changes and it is now possible to run trials with larger samples. At the same time there is really no need for more studies showing that a treatment is better than just waiting (for some areas at least like depression). In this talk we will present result from three completed factorial design trials in which we have manipulated support form (on demand versus scheduled in one trial and chat-support versus just email in another), and also other aspects like learning support and choice of treatment. The talk will end with a discussion on future directions of ICBT research with regards to design of trials.

#### **Self-Management Interventions in the Treatment of Depressive Disorders: Ready for Clinical Practice?**

**Jan Philipp Klein, Fritz Hohagen & Christina Späth, Lübeck University, Germany**

**Johanna Schröder, University Medical Center Hamburg-Eppendorf, Germany**

**Thomas Berger, Bern University, Switzerland**

**Björn Meyer, GAIA AG, Germany, and University of London, United Kingdom**

**Steffen Moritz, University Medical Center Hamburg-Eppendorf, Germany**

Only about half of those who suffer from a depressive disorder are also seeking treatment. Self-management interventions could contribute to reducing this treatment gap. These interventions are mostly based on evidence-based techniques of cognitive behavioral therapy, which are taught by a computer program rather than by a therapist. Numerous studies show the effectiveness of these interventions. However, these studies also raise a number of questions. These include efficacy in clinician-ratings and long-term course and efficacy in severe depressive symptoms or in combination with antidepressant medication. Finally, the question arises of how to use these interventions in patients in clinical practice and in people who are not particularly internet-savvy. We have addressed these questions in a large randomized trial (EVIDENT trial) that studied the effectiveness of the intervention deprexis®. The results of this trial are summarized in this review and put into the context of other interventions available in Germany.

#### **Symptom-Specific Effectiveness of an Internet-Based Intervention for Mild to Moderate Depressive Symptomatology: The Potential of Network Analyses**

**Lynn Boschloo, Pim Cuijpers & Eirini Karyotaki, Vrije Universiteit Amsterdam, the Netherlands**

**Thomas Berger, Bern University, Switzerland**

**Steffen Moritz, University Medical Center Hamburg-Eppendorf, Germany**

**Björn Meyer, GAIA AG, Germany**

**Jan Philipp Klein, Lübeck University, Germany**

The internet-based intervention Deprexis has proven to be effective in improving overall depression severity in patients with mild to moderate symptomatology. The current study used data (N = 794) from a large randomized controlled trial to consider individual depressive symptoms, assessed with the Patient Health Questionnaire, as a more specific assessment of effectiveness and to show the potential of network estimation techniques. Depressive symptoms differed considerably in their response to the internet-based intervention relative to care as usual. Seven symptoms showed larger improvements in the intervention (effect sizes ranging from .15 to .31), whereas no significant differences were found for two other symptoms. In a next step, network estimation techniques were used to shed light on the diversity of participants in their symptom-specific response to the intervention and suggested that the intervention had direct effects on four symptoms and indirect effects on three symptoms. This information might be helpful in generating hypotheses regarding the potential working mechanisms of the intervention. In addition, information from the estimated network showed potential in precision psychiatry, as the intervention became more effective in improving overall depression severity for participants with higher scores on those symptoms that were directly affected by the intervention.

#### **The Therapeutic Relationship in a Large RCT of an Intervention for Depression**

**Thomas Berger, Juan Martín Gómez Penedo, Martin Grosse Holtforth & Tobias Krieger, Bern University, Switzerland**

**Johanna Schröder, University Medical Center Hamburg-Eppendorf, Germany**

**Björn Meyer, GAIA AG, Germany**

**Steffen Moritz, University Medical Center Hamburg-Eppendorf, Germany**

**Philipp Klein, Lübeck University, Germany**

Guided Internet interventions are effective in a variety of psychopathological conditions. This study aims to investigate (1) the psychometric properties of the Working Alliance Inventory revised and adapted for guided Internet interventions (WAI-I), which measures Task and Goal agreement with the Internet intervention and Bond with the therapist providing guidance, and (2) its association with treatment outcome in a multicenter randomized controlled trial that examined the internet intervention deprexis in adults with mild to moderate depression. Two hundred twenty-three patients completed the WAI-I and the Patient Satisfaction Questionnaire (ZUF-8) at post-treatment (3 months after randomization), and the Attitudes toward Psychological Online-Interventions Questionnaire (APOI) at baseline. To examine construct validity, we ran confirmatory factor analyses (CFA) using a Maximum Likelihood estimation method, testing a two- and a three-factor solution. To analyze reliability, we calculated ordinal alpha coefficients and adjusted item-total correlations. For external validity, we analyzed the correlations of the WAI-I with APOI and ZUF-8. The CFA suggested a two-factor solution, with a very good model fit and evidence of factor independency. Results also showed adequate internal consistency and external validity for both the complete scale and the two sub-scales. Thus, the WAI-I appears to be a reliable and valid instrument to capture alliance in guided Internet interventions, which might facilitate process-outcome research and treatment development efforts. Analyses of the association between the WAI-I and treatment outcome are currently conducted and results will be presented at the congress.



## **Predicting Treatment Response for Mental Disorders – Methods, Findings and Clinical Benefits**

**Convenor: Elisabeth Leehr, University of Münster, Germany**

**Chair: Elisabeth Leehr, University of Münster, Germany**

### **Predictors and Moderators of CBT Outcome in Depression**

**Martin Hautzinger, Eberhard-Karls-Universität Tübingen, Germany**

An urgent goal of future treatment studies for depression is to identify predictors (relationship between two variables e.g. baseline response and outcome of treatment) and moderators (involve three random variables, choice of treatment, moderator, and outcome) of successful interventions. A major question to answer is who benefits most of a certain treatment, what sub-group of patients shows a strong response and what sub-group only a weak response, which variable has influence on the a choice of treatment and its outcome. This presentation will report some analysis based on two randomized, controlled treatment studies of chronic depressed subjects. In particular, early onset, early traumatization, social variables are studied as moderators of outcome for cognitive-behavioral therapy, for psychoanalytic therapy, and for cognitive-behavioral analysis system of psychotherapy.

### **AI Transparency - Guidelines for Building, Deploying and Managing Clinical Decision Support Systems at Scale**

**Ramona Leenings, Tim Hahn, Ramona Leenings, Nils Winter, Daniel Emden & Udo Dannowski, University of Münster, Germany**

With Artificial Intelligence (AI) technology advancing at a breathtaking speed – nearing application stage in psychiatry as well as many others fields of medicine – the need for regulation ensuring quality, utility and security of the emerging AI-based clinical decision support systems becomes increasingly essential. A conceptual framework for standardized medical AI evaluation is currently missing. Without a consensus regarding requirements and standards for building, validating, deploying, and managing medical AI applications, however, evaluating newly emerging applications even in one's own field of expertise can be extremely difficult. Therefore, we suggest a framework with which to evaluate quality, clinical utility and security of medical AI applications based on the concept of AI Transparency.

Combining best-practice from machine learning and data science with requirements for clinical applications, we suggest to quantify an AI model's transparency as the degree to which information regarding three core aspects, namely generalization, model scope, and risk profiles, is disclosed.

The first aspect of AI transparency is generalization, which refers to the model's ability to correctly handle previously unseen data. This describes the transfer of the learned patterns and implicit rules acquired during the model's training to the application e.g. in clinical contexts. The method by which the generalization capability is measured drastically impacts the quality of the measurement and thereby the trustworthiness of the model. There are three approaches which generate increasing levels of trustworthiness, respectively, namely, cross-validation, nested cross-validation and a completely external test set in combination with nested cross-validation. The second aspect is model scope, which refers to the group of individuals about whom the model can make reasonable predictions. Several criteria, such as evaluating the training data by their variance and representativeness as well as being informed about potential exclusion criteria help in reducing the risk of mispredictions by applying the model to inappropriate target groups. Finally, analyzing the errors that the AI model produces, and thereby generating risk profiles, is essential for guaranteeing AI security. Firstly, the AI model has to exceed any performance of other state-of-the-art techniques and secondly, the data given for training should be chosen wisely as any systematic bias in the data is reflected in the AI model's predictions as well.

We hope that the notion of AI Transparency sparks further debate and provides the basis for a discussion regarding regulation and legal certification, thereby helping to overcome the numerous conceptual, technological, legal and ethical challenges before medical AI systems become available at scale. Given the tremendous potential benefits for patients with mental illness, this is a debate well worth having.

### **From Mechanisms to Predictions: Theranostic Markers for CBT in Anxiety Disorders**

**Ulrike Lueken & Kevin Hilbert, Humboldt-Universität zu Berlin, Germany**

**Tim Hahn, University Hospital of Muenster, Germany**

**Thilo Kircher, Phillips-University Marburg, Germany**

**Thomas Fydrich & Norbert Kathmann, Humboldt-Universität zu Berlin, Germany**

**Hans-Ulrich Wittchen, Technische Universität Dresden, Germany**

**Background.** Although CBT is an effective treatment option for anxiety disorders, treatment response on the individual level is highly variable with substantial amounts of early dropouts, non-responders and relapsing patients. It is plausible to assume that neurobiological signatures may partly account for these different response profiles. Early identification of patients with a poor prognosis is a prime target for researchers and clinicians in order to reduce the individual and societal burden by optimizing CBT success rates. Functional magnetic resonance imaging (fMRI) is increasingly being used to gain a better understanding of the neurofunctional pathways by which CBT may unfold its effects. Supplementing this group-based mechanistic perspective, multivariate pattern recognition embedded within a machine-learning framework yields predictions on the individual patient level. We aimed to identify neural mechanisms underlying CBT (non-)response and to test clinical as well as neuroimaging data for their potential to deliver theranostic markers with high predictive accuracy. **Methods.** Supported by a German Mental Health funding program from the Federal Ministry of Education and Research, the neural mechanisms of CBT (non-)response were analyzed in a subsample from a multicenter platform (Panic-Net) on exposure-based CBT in panic disorder and agoraphobia (PD/AG). In addition, predictions on CBT outcome based on clinical routine data were derived from a naturalistic and longitudinal cohort of  $n = 2.147$  patients with heterogeneous primary diagnoses and comorbidities from the outpatient sector. Group-based comparisons as well as predictive analytics for individual patients were applied.

**Results.** Predictions from clinical routine data exceeded chance level with a balanced accuracy of 59%, but were far from clinical utility. In contrast, predicting treatment response in PD/AG based on neuroimaging data yielded substantially better performance with 82% prediction accuracy. Non-response was associated with altered safety signal processing in fear-processing brain systems including the pregenual anterior cingulate cortex (ACC), hippocampus and amygdala. Non-responders furthermore showed decoupled ACC-amygdala connectivity prior to CBT.

**Discussion.** Standard clinical data routinely collected prior to therapy shows a limited capacity to derive meaningful predictions for the individual patient. Adding hypotheses-based, more specific clinical constructs and deep (e.g. neurobiological) to digital phenotypes may increase prediction performance. Altered medial prefrontal cortex/ACC functionality implicated in emotion regulation and fear-inhibitory learning seems to represent an overarching feature of non-response cross-cutting different disorders from the internalizing spectrum. Future

studies are needed to evaluate the added value of neuroscience-informed augmentation strategies to train these neural circuits prior to CBT. Predictive analytics may bear potential to support clinical expert decisions, thus fostering precision psychotherapy approaches.

### **Brain Signal Variability and Indices of Cellular Protection Predicts Social Anxiety Disorder Treatment Outcome**

**Kristoffer Månsson, Stockholm University and Uppsala University, Sweden**

**Douglas Garrett, Max Plank UCL Centre for Computational Psychiatry and Ageing Research, Germany**

**Daniel Lindqvist, Lund University, Sweden**

**Owen Wolkowitz, University of California, USA**

**Catharina Lavebratt, Karolinska Institutet, Sweden**

**Håkan Fischer, Stockholm University, Sweden**

**Tomas Furmark, Uppsala University, Sweden**

**And many more...**

We are currently lacking clinically useful predictors of treatment response in common psychiatric disorders. Non-invasive and increasingly accessible neuroimaging techniques like functional magnetic resonance imaging (fMRI) could be a useful tool. In contrast to the conventional approach investigating the brain's average responses, the brain's signal variability could be a better estimate of the brain's dynamic operations (Garrett et al., 2010, 2015). In addition, telomere attrition is a hallmark of cellular aging and shorter telomeres have been reported in mood and anxiety disorders. Telomere shortening is counteracted by the enzyme telomerase and cellular protection is also provided by the antioxidant enzyme glutathione peroxidase (GPx). Here, we investigate if baseline BOLD-fMRI signal variability, and indices of cellular protection, predicts social anxiety disorder patient's response to internet-delivered cognitive behavior therapy. Forty-six patients with social anxiety disorder (SAD) were scanned twice with a 3 Tesla fMRI before initiating CBT. Treatment outcome was assessed the Liebowitz Social Anxiety Scale (self-report). 1) BOLD-fMRI acquisition was performed while passively viewing emotional faces flashing on the screen for 80 seconds. Raw BOLD-fMRI data was implemented in an Independent Component Analysis in order to manually denoise images by carefully remove noise from neural signal. Across time, each voxel's standard deviation was calculated and used as an index of variability. Multivariate partial least squares regression models were used for second level analysis. 2) Telomerase activity and telomere length were measured in peripheral blood mononuclear cells and GPx activity in plasma. Significant latent level brain scores, and baseline analytes were implemented in linear regressions with LSAS-SR change score as the outcome. Results will be presented and discussed.

### **Theranostic Markers for Personalized Therapy of Spider Phobia: Methods of a Bicentric External Cross-Validation Machine Learning Approach**

**Elisabeth Leehr, University of Münster, Germany**

**Hanna Schwarzmeier, University Hospital Würzburg, Germany**

**Joscha Böhnlein, University of Münster, Germany**

**Fabian Seeger, University Hospital Würzburg, Germany**

**Kati Roesmann, University of Münster, Germany**

**Martin Herrmann, University Hospital Würzburg, Germany**

**Thomas Straube & Udo Dannlowski, University of Münster, Germany**

**Background.** Embedded in the Collaborative research center "Fear, Anxiety and Anxiety Disorders" (CRC-TRR58), the presented study protocol addresses challenges in current clinical research and represents the first step into a new direction of clinical research. Taking spider phobia as a model disorder for pathological forms of fear and anxiety, the present clinical study protocol aims i) to identify bio-behavioral markers of treatment (non-)response for a first-line treatment (i.e. behavioral exposure), ii) to overcome traditional univariate, correlational or group-based approaches by applying state-of-the-art machine learning methodology that uses multivariate pattern recognition suitable for predictions on the individual patient, iii) to combine multiple units of analysis including (epi-)genetic, neural systems and clinical readouts to directly compare the predictive value of these data domains, combinations thereof and cost-efficient proxy-measures, and iv) to explicitly include an external (i.e. out-of-sample) cross-validation protocol based on our bicentric study design to evaluate the robustness and generalizability of predictors identified. Our primary hypothesis is that a priori prediction of treatment (non-)response is possible in a second, independent sample based on multimodal markers with sufficient prediction accuracy.

**Methods.** In a bicentric study design, a one-session virtual reality exposure treatment (VRET) for patients with spider phobia is conducted. Clinical data, imaging data and genetic data are assessed at baseline, post-treatment and after a six-month follow-up. The primary and secondary outcome to define treatment (non-)response are: 1) a 30% reduction regarding the individual score in the spider phobia questionnaire and 2) a 50% reduction regarding the individual distance in the behavioral avoidance test.

**Results.** Data collection is in progress. So far there have been included N=181 patients with spider phobia (n=89 patients in Würzburg and n=92 in Münster). Examples of preliminary single patient data reveal a decrease in both outcome measures, as well as within scenario fear reduction.

**Discussion.** In conclusion, the presented study offers the possibility to investigate theranostic markers for a model disorder of fear circuitry dysfunctions. The detection of pre-treatment theranostic markers of clinical response could support clinical decision making on personalized therapy approaches or respectively, to spare ineffective treatment and its related financial costs. With this study, we hope to further bridge the gap between basic and clinical research and – as a long-term goal – to bring stratified therapy approaches into reach.

## **What Works Under which Circumstances: Personalizing Treatments from a Differential Prediction and Network Perspective**

**Convenor: Wolfgang Lutz, University of Trier, Germany**

**Chair: Wolfgang Lutz, University of Trier, Germany**

**Discussant: Stefan Hofmann, Boston University, USA**

## **The Stratified Medicine Approaches for Treatment Selection (SMART) Mental Health Prediction Tournament: How advances in statistical approaches to predictive modeling can improve mental health outcomes**

**Zachory Cohen, University of California, USA**

Advances in statistical approaches such as machine learning have improved the field's ability to predict mental health treatment response (Gillan & Whelan, 2017; Kessler, 2018). These predictive models have the potential to inform treatment selection, the shared decision-making process by which clinicians and clients determine which treatment pathway to pursue (Cohen & DeRubeis, 2018). In the SMART Mental Health Prediction Tournament, 13 teams from around the world competed to see who could build the best predictive models for anxiety and depression treatment response. Each team was provided with the same large, anonymized mental health treatment outcome dataset (N=4000) from the UK's national health system, in which individuals receive Low- and High-Intensity psychological interventions. A held-out test sample (N=2000) and two held-out generalizability samples (total Ns > 20000) were used to determine the winning approach and to test models' generalizability across different UK regions. Head-to-head comparisons of different approaches for selecting mental health treatments will yield knowledge that can be used to maximize the efficiency of mental health care delivery in the future. This talk will highlight important lessons learned from the SMART Tournament regarding the utility of machine learning in mental health treatment selection.

## **Network models for clinical practice?**

**Bringmann Laura, University of Groningen, the Netherlands**

In an effort to bridge the gap between clinical research and practice, more and more clinicians and researchers are using some form of experience sampling method to study, for example, individuals with depression in real time. These kinds of intensive longitudinal data give a wealth of information, but also lead to many new methodological challenges. In the recently popular network approach, the focus is on the dynamics between symptoms: Studying networks of causally interacting symptoms will give information on which symptom one should intervene. However, others have argued that the network models used can get overly complicated, and that the focus should be more on the symptom scores themselves. On this approach, the important symptoms are those with a high average score, and they can be found through, for example, visualization techniques. In this talk, I will present and discuss both approaches. On the one hand, I will explain the newest kind of dynamic model (the time-varying vector autoregressive model) for inferring dynamical networks, and on the other hand, I will present new visualization techniques that can highlight the importance of items in research and clinical practice. Additionally, I will discuss the advantages and disadvantages of both sides, and discuss new ways of thinking about the relative importance of symptoms for interventions.

## **Individual treatment selection in routine care: Development of a machine-learning-based algorithm**

**Schwartz Brian & Wolfgang Lutz, University of Trier, Germany**

**Aim:** Different treatment approaches for mental-health problems often show equivalent outcomes, whereas individual patients differ in their treatment responses. Instead of using a one-size-fits-all approach, treatments can be tailored to the individual characteristics of each patient improving treatment outcomes. To support therapists in formal decision-making, the present study aims to develop a treatment selection algorithm that allocates patients based on their pre-treatment characteristics to their optimal treatment.

**Methods:** Data of N = 705 outpatients treated with two different approaches (either CBT or PDT) in the TK (Techniker Krankenkasse) project were analyzed. This project was conducted to evaluate a quality assurance and feedback system in German routine care. Potential predictors were selected from a pool of 48 pre-treatment characteristics including demographics, diagnostic features, intake impairment and interpersonal problems. Based on machine-learning algorithms, the differential treatment response in the Brief Symptom Inventory (BSI) was modeled to indicate each individual's optimal treatment. Treatment responses of patients who received their optimal or non-optimal treatment were compared to evaluate the personalized allocation of patients.

**Results:** The developed algorithm assigned outpatients treated in routine care to one out of two treatments based on their pre-treatment characteristics. Patients treated with the recommended treatment showed a significantly larger improvement than patients treated with the non-recommended treatment did.

**Discussion:** Machine-learning-based treatment selection algorithms are able to support clinical decision-making. Findings and their clinical implications will be discussed against the background of the previous literature on treatment selection and precision medicine.

## **Novel Developments of Investigating the Relation Among Cognitive Control and Emotion Regulation in Psychopathology**

**Convenor: Luise Pruessner, Heidelberg University, Germany**

**Chair: Sven Barnow, Heidelberg University, Germany**

## **State of the Art and Research Gaps: Cognitive Control, Emotion Regulation, and Psychopathology**

**Katrin Schulze, Luise Pruessner, Sven Barnow & Daniel Holt, Heidelberg University, Germany**

**Introduction:** Ineffective attempts to regulate emotions are a key etiological cause, maintaining factor and symptom of a wide range of mental disorders. Previous research suggests that the successful implementation of emotion regulation strategies is linked to higher levels of cognitive control, concerning (a) updating information in working memory, (b) inhibiting prepotent responses, and (c) shifting mental sets. However, a large number of behavioral and neuroimaging studies supporting this link used emotional stimuli for assessing both emotion regulation and cognitive control (e.g., emotional Stroop tasks). Critically, cognitive tasks employing emotional stimuli are thought to require emotion regulation to some extent, rendering it difficult to isolate the contribution of cognitive control to emotion regulation with such designs. Studies that do use neutral stimuli to assess cognitive control show a more heterogeneous picture, with only some supporting this link between emotion regulation and cognitive control. In addition, research in this domain is still at an early stage, resulting in incompletely

understood boundary conditions or moderating variables. As a consequence, the relationship between basic cognitive processes and emotion regulation is still not entirely understood.

**Method:** To elaborate on current findings and research gaps, the present talk will provide a review of the state of the art on cognitive control, emotion regulation, and psychopathology. Subsequently, we will present a comprehensive multi-method approach investigating individual differences in emotion regulation abilities and cognitive control by combining self-report, laboratory measures, and ecological momentary assessment. During the laboratory emotion regulation task, participants were presented with negative pictures and were asked to regulate their emotions by using the previously trained emotion regulation strategies acceptance, suppression and reappraisal. Cognitive control was investigated using neutral stimuli and included tasks on working memory updating (Memory Updating task), shifting (Number-Letter task), and inhibition (Stroop task). Daily emotion regulation processes were measured using smartphone-based ecological momentary assessment several times a day over the course of a week. Finally, to investigate the relationship to psychopathology, participants were asked to fill in a battery of self-report questionnaires assessing depressive symptoms, anxiety, and general psychological distress.

**Results and Discussion:** We will present preliminary data from an adult mixed community and student sample ( $N > 150$ ). Initial results indicate at most small direct correlations between laboratory-based measures of emotion regulation and the updating, shifting, and inhibition tasks. These preliminary results suggest that interindividual differences in cognitive control are associated with emotion regulation abilities only to a small degree when assessing cognitive control with non-emotional stimuli. In addition, we will present and discuss further results on cognitive control and emotion regulation (e.g. assessed with ecological momentary assessment), with a particular emphasis on the relation to psychopathology (e.g. depressive symptoms and anxiety). Finally, we will highlight open questions and important future directions in this area of research.

### **Emotion Regulation Flexibility and Psychopathology: A Cognitive Control Perspective**

**Luise Pruessner, Daniel Holt, Sven Barnow & Katrin Schulze, Heidelberg University, Germany**

**Introduction:** What are the processes that allow flexibly adapting to the demands of various emotional contexts? While the majority of previous research on emotion regulation has focused on the mechanisms that may support the successful implementation of predefined regulatory strategies, researchers have recently started to investigate the processes underlying emotion regulation flexibility and its role in psychopathology. Emotion regulation flexibility describes the ability to select, monitor, and flexibly adapt regulatory strategies according to changing situational demands. A mechanism that may enhance this adaptation to different emotional contexts is cognitive control, i.e., cognitive processes and abilities that allow goal-directed, yet flexible behavior in different environments. However, despite these potential links, cognitive control and emotion regulation flexibility have not been investigated in conjunction.

**Method:** To address this gap, we developed a new approach to integrating assessments of cognitive control and emotion regulation flexibility. In our novel laboratory-based emotion regulation task, an adult community sample ( $N > 120$ ) was presented with different emotional pictures and instructed to regulate negative emotions by using either pre-selected or freely chosen regulatory strategies (reappraisal, suppression, or acceptance). At the end of the task, participants were provided with feedback concerning regulatory success and had the possibility to either maintain or switch previously selected emotion regulation strategies. Furthermore, we assessed naturalistic measures of emotion regulation flexibility in daily life using smartphone-based ecological momentary assessment. Cognitive control was examined by using working memory updating and shifting tasks. Symptoms of anxiety, depression, and personality pathology were measured dimensionally and categorically with structured clinical interviews and self-report questionnaires.

**Results:** Preliminary data analyses suggest a positive relationship between working memory updating and measures of emotion regulation flexibility. Lower set shifting costs were associated with more flexible regulation of emotional expression in both daily reports and questionnaire-based measures. Furthermore, emotion regulation flexibility was negatively correlated with depressive symptoms and personality pathology.

**Discussion:** Our results suggest that cognitive control processes may be involved in emotion regulation flexibility, i.e., how regulatory strategies are selected, monitored, and flexibly adapted to changing situational demands. The observed relations with psychopathology imply that the ability to dynamically adjust to changing emotional contexts might potentially be relevant for understanding both unstable, disorganized regulatory behavior as well as overly rigid, inflexible emotion regulation shown in various mental disorders.

**Conclusion:** We conclude that incorporating contextual dynamics into investigations of the relationship between cognitive control and emotion regulation may provide important transdiagnostic implications for understanding the difficulties of adjusting to different emotional situations in psychopathology.

### **A Longitudinal Study on the Relationship between Cognitive Control, Daily Emotion Regulation, and Depressive Symptoms**

**Ana-Maria Rotaru, Daniel Holt, Sven Barnow, Luise Pruessner, Annemarie Miano & Katrin Schulze, Heidelberg University, Germany**

**Introduction:** Depression is one of the most common mental disorders and a leading cause of years lived with disability worldwide. Cognitive control is believed to be important in the recovery from negative emotional states. For instance, depressed individuals have difficulties in removing negative material from working memory, which may lead to rumination. The use of rumination has been associated with working memory deficits, whereas higher reappraisal ability and frequency have been linked to improved working memory capacity. The association between cognitive control and emotion regulation has been repeatedly reported, although the direction and timing of this relationship is still unclear. Do higher levels of depressive symptoms predict impaired cognitive control (or vice versa), and how do both of these processes relate to the use of emotion regulation strategies? In this study, we used the naturally occurring seasonal fluctuations of depressive symptoms to investigate how cognitive control might be longitudinally associated with changes in depressive symptoms and emotion regulation over the seasons.

**Methods:** An adult community sample took part in five assessments over the course of 10 months ( $N > 140$ ). The assessments occurred in intervals of two months, from August 2018 (T1) to May 2019 (T5). Data from T1 and T3 were used to compare changes from summer to winter. At each assessment, cognitive control was examined using three computerized tasks measuring working memory updating (operational span task), inhibition (neutral Stroop task), and emotional interference (emotional Stroop task). Importantly, this allowed for the assessment of cognitive control using both neutral and emotional stimuli, as findings may differ based on stimulus type. Depressive symptoms were measured using the BDI-II. Rumination and reappraisal were assessed with a smartphone-based ecological momentary assessment and a retrospective self-report questionnaire (HFERST).

**Results:** As hypothesised, there was a slight increase in depression scores from summer (T1) to winter (T3). Concerning the relationship between depressive symptoms and cognitive control, preliminary analyses suggest that depressive symptoms at T1 are predictive of working memory performance at T3, whereas working memory performance at T1 is not predictive of depressive symptoms at T3. Furthermore,

analyses suggest that rumination measured with EMA at T1 predicts depressive symptoms at T3. During this talk, more detailed analyses of all cognitive control measures and their associations with emotion regulation strategy use over time will be presented.

**Discussion:** Overall, these preliminary results provide further insight into the relationship between cognitive control, depressive symptoms and emotion regulation. The observed increase in depressive symptoms from summer to winter is in line with previous studies investigating seasonal fluctuations in depressive symptoms. Moreover, rumination appeared to predict depressive symptoms, highlighting its role in the seasonal fluctuations observed in depression. Future studies should expand on this examination on the role of cognitive control and emotion regulation strategies in depressive symptoms over time. Disentangling these complex interactions could have a considerable impact on the detection, prevention, and treatment of depression.

### **Shifting the View on Presumed Emotion-Regulation Deficits in Psychosis - Patients with Psychosis Apply Reappraisal, Distraction and Acceptance Successfully**

**Sandra Opoka, Johanna Sundag & Tania Lincoln, Universität Hamburg, Germany**

**INTRODUCTION** Elevated levels of negative affect are prevalent in patients with psychosis, which has been found to contribute to the formation and maintenance of psychotic symptoms. Thus, the ability to regulate emotions successfully is important for this patient population. There are several reasons to expect patients with psychosis to be less successful in regulating emotions. In particular, neurocognitive deficits are likely to hamper the successful implementation of cognitively demanding emotion regulation strategies. Although questionnaire studies point to problems in emotion regulation in psychosis, the assumption that patients with psychosis have deficits in applying strategies successfully has not yet been sufficiently verified by experimental research. For this reason and to explore the specificity of potential regulation deficits, the current experimental study examined the success in reducing anxiety and sadness by means of various emotion regulation strategies in patients with psychosis (n=60), patients with anxiety disorders (n=40) and healthy control subjects (n=40). **METHODS** Images from the International Affective Picture System were used to induce anxiety and sadness before participants were instructed to either apply one of the emotion regulation strategies (reappraisal, distraction, acceptance) or to view without regulation (control condition). The Trail-Making-Test (TMT) was administered separately as a neurocognitive measure. **RESULTS** All groups were successful in reducing anxiety as well as sadness significantly through all examined strategies. Patients with psychosis showed a poorer performance within the TMT A and B compared to healthy controls, but did not differ in performance from patients with anxiety disorders. Performance within the TMT A and B did not correlate with regulation success. **DISCUSSION** Contrary to the hypothesis, the results indicate that patients with psychosis are able to apply reappraisal, distraction and acceptance successfully under experimental conditions and that neurocognitive deficits are not associated with the ability to apply emotion regulation strategies. **CONCLUSION** Further studies are needed to examine whether a successful application of emotion regulation strategies as seen under experimental conditions is also evident within the daily lives of patients with psychosis.

### **Adapting Evidence-Based Transdiagnostic Cognitive Behavioral Therapy Across Mental Health Settings: Recent and Ongoing Innovations**

**Convenor: Nina Reinholt, Mental Health Centre of Copenhagen and University of Copenhagen, Denmark**

**Chair: Sidse Arnfred, University of Copenhagen, Denmark**

**Discussant: Jill Newby, University of New South Wales, Australia**

### **Extending the Unified Protocol Beyond Traditional Outpatient Settings: Balance of Flexibility and Fidelity**

**Kate Bentley, Massachusetts General Hospital, USA**

**Kelsey Lowman, Massachusetts General Hospital and Harvard Medical, USA**

**Shannon Sauer-Zavala, Boston University, USA**

**Jason J. Washburn, Northwestern University, USA**

**James McKowen & A. Eden Evins, Massachusetts General Hospital and Harvard Medical, USA**

Transdiagnostic and modular treatment approaches have the potential to facilitate dissemination and implementation of evidence-based psychological interventions across a wide range of clinical settings. For example, transdiagnostic and modular interventions may be particularly well-suited to training clinicians, as providers can learn and flexibly apply one protocol across diagnostically heterogeneous individuals, efficiently addressing many commonly co-occurring conditions. The Unified Protocol (UP) (Barlow et al., 2011; 2018) is one such modular, cognitive-behavioral intervention designed to be applicable across the full range of anxiety and related disorders. The UP has been rigorously evaluated in a number of randomized controlled trials (e.g., Barlow et al., 2017; Farchione et al., 2012) and demonstrated efficacy for the treatment of anxiety disorders and frequently comorbid conditions (e.g., depression, PTSD, nonsuicidal self-injury). To date, however, the vast majority of research on the UP has taken place in traditional outpatient settings, in which the protocol is delivered over 12 to 20 weeks in individual or group-based sessions by MA- or PhD-level providers. Furthermore, previous randomized controlled trials have focused on outpatients with anxiety disorders who are likely to present with less acute psychiatric symptoms than those individuals seen in more intensive treatment settings (e.g., inpatient or partial hospitalization programs). Existing trials have also often excluded patients who meet criteria for other disorders warranting immediate clinical attention, such as substance use disorder (SUD).

Accordingly, recent efforts have examined the acceptability, feasibility, efficacy, or effectiveness of the UP in a range of non-traditional outpatient settings, from residential and partial hospitalization programs for eating disorders (e.g., Thompson-Brenner et al., 2018) to an acute crisis stabilization unit (e.g., Bentley et al., 2017) and an inpatient psychiatric unit (e.g., Bentley et al., 2018). In collaboration with stakeholders, these initiatives have required thoughtful adaptations of the format (e.g., from weekly individual to massed daily sessions, sequential UP module delivery to rolling admission groups) and – in some cases – content of the original UP (e.g., extending UP concepts to be relevant to suicidal thoughts and behaviors or SUD). This presentation will provide an overview of two such recent or ongoing efforts: (1) an examination of clinical outcomes before and after implementation of the group-based UP on a large psychiatric inpatient unit for adults with affective and co-occurring disorders, including suicidal thoughts and behaviors (N = 194) (Bentley et al., 2018), and (2) a pilot randomized controlled trial comparing the group-based UP plus usual care to usual care alone within a comprehensive outpatient program for young adults with SUD (randomized n = 33 [enrollment is ongoing]). We will emphasize key issues and “lessons learned” about striking the necessary balance of protocol flexibility for different settings and patient groups, and fidelity to the treatment framework that has proven efficacious in research trials. Initial findings from these lines of work will be presented and recommendations for researchers and clinicians interested in using the UP in non-traditional treatment contexts provided.

## **Trans-Diagnostic Versus Diagnosis-Specific Group Cognitive Behavior Therapy for Depression and Anxiety Disorders: A Two-Armed, Non-Inferiority, Randomized Controlled Trial**

**Nina Reinholdt, University of Copenhagen, Denmark**

**Morten Hvenegaard Pedersen, Mental Health Centre Copenhagen and University of Copenhagen, Denmark**

**Anne Bryde Christensen, Psychiatric Hospital Slagelse, Region Zealand Mental Health Services, Denmark**

**Anita Eskildsen, Aarhus University Hospital, Denmark**

**Carsten Hjorthøj, Mental Health Services Capital Region and University of Copenhagen, Denmark**

**Stig Bernt Poulsen, University of Copenhagen, Denmark**

**Nicole Gremaud Rosenberg, Mental Health Centre Copenhagen, Denmark**

**Sidse Marie Arnfred, Psychiatric Hospital Slagelse, Region Zealand Mental Health Services, Denmark**

**Background:** Transdiagnostic Cognitive Behavior Therapy manuals (i.e. The Unified Protocol for Transdiagnostic Treatment of Emotional disorders (UP); Barlow et al., 2011, 2018) has the potential to simplify treatment and improve access to evidence-based cognitive behavior therapy treatments for anxiety, depression and related emotional disorders in routine clinical practice. Preliminary evidence for individual therapy with the UP for anxiety is promising, but adaptation of the UP for depression and for group delivery needs to be adequately tested. Applying the UP to heterogeneous groups is important as groups might be a cost-effective way of delivering evidence-based psychological treatment for the most common mental disorders, especially relevant for Mental Health Services (MHS) facing limited resources and long waiting lists.

**Objective:** To determine whether the UP delivered in heterogeneous groups is as effective as diagnosis-specific group cognitive behavior therapy (dCBT) for patients with anxiety and depression.

**Methods:** In this parallel, non-inferiority, multi-center, randomized clinical trial (RCT), 292 patients with a principal diagnosis of unipolar depression (single episode or recurrent), social anxiety disorder, or panic disorder (with or without agoraphobia) were recruited from three regional Mental Health Service clinics across Denmark from December 1., 2016 to November 10., 2018. Patients were randomly assigned by principal diagnosis to receive 14 two-hour weekly sessions in heterogeneous UP groups or diagnosis-specific dCBT groups of 8 to 10 patients. Outcomes were assessed at baseline, post-treatment, and at six months follow-up. Analysis was based on the per protocol sample. Main outcome: Self-reported well-being measured with the WHO-5 Well-being Index post-treatment was used to test an apriori hypothesis of non-inferiority of group UP compared to group dCBT.

**Results:** The trial is currently running. 292 patients have been included. 64 groups have been completed. The last six groups are finalizing within March 2019. Results from preliminary analyses of the primary and secondary outcomes will be presented and clinical implications of these results will be discussed.

**Discussion:** To our knowledge, this is the first randomized controlled trial (RCT) to report the effects of group UP for patients with anxiety and depression compared to group dCBT. The results are expected to add substantially to the evidence-base for group delivery of the UP in routine clinical practice.

## **Adapting the Unified Protocol to an Online Setting: Preliminary Results of an Ongoing RCT**

**Carmen Schäuffele, Babette Renneberg, Christine Knaevelsrud & Johanna Boettcher, Freie Universitaet Berlin, Germany**

**Background**

The emotional disorders, that subsume all psychological disorders with high negative emotionality like the depressive and anxiety disorders, are highly prevalent and comorbid. Two thirds of patients meeting criteria for an anxiety disorder also fulfill the criteria for depression and vice versa. This challenge led to the development of so-called transdiagnostic treatments – treatments that are applicable across a variety of different disorders. In the current study, we evaluated a 10-week therapist-guided internet-delivered intervention based on the Unified Protocol, a transdiagnostic treatment approach for the emotional disorders.

**Method**

In an RCT we compared the intervention with a wait-list-control group. We plan to recruit a total sample of n=180, including 60 participants with a primary diagnosis of depression, 60 with an anxiety disorder and 60 with a somatic symptom disorder. Diagnoses are determined with a structured interview (ADIS) via telephone. Assessments of outcomes are at pre-, mid- and post-treatment as well as at 1-, 3- and 12-month follow-up. The primary outcome measure is the BSI-18, a short version of the Symptom Checklist-90-R. Secondary outcomes include life satisfaction, positive and negative affect as well as disorder-specific symptomatology.

**Results**

The study started in December 2018 and is currently ongoing (N=83 randomized). We will present first results on the efficacy of this transdiagnostic internet-based intervention and thoroughly analyze its strengths and limitations. We will report on individual goal attainment and predictors of adherence and outcome, including primary diagnosis, symptom severity, and outcome expectations.

**Discussion**

Results will shed light on the important question whether this transdiagnostic approach delivered over the internet is actually applicable to the most common emotional disorders. If results prove favorable, this internet-based intervention would present a low-threshold intervention for a large range of patients with mental health problems and would offer a valuable treatment option for the majority of patients with more than one mental disorder.

## **Group Cohesion in Mixed-Diagnoses Groups: A Qualitative Enquiry**

**Anne Bryde Christensen, University of Copenhagen, Denmark**

The current study investigated patient and therapist experiences of the Unified Protocol delivered in groups in Danish Mental Health Services. To our knowledge, no qualitative enquiry has been made into the experience of receiving group treatment in mixed diagnoses groups. It is considered highly important to look into the attitudes of the patients and therapists in order to get a thorough understanding of mixed group dynamics and group cohesion.

35 semi-structured interviews were carried out in 3 clinics across the country. Interviews were conducted post treatment. This qualitative study was a parallel to the TRACT-RCT study.

The data analysis is currently in progress, results are expected throughout the spring of 2019. The results concerning group cohesion will be presented here. The data is analysed using a thematic framework.

## **New Developments in Schema Therapy, Part 1**

**Convenor: Marleen Rijkeboer, Maastricht University, the Netherlands**

**Chair: Marleen Rijkeboer, Maastricht University, the Netherlands**

### **Theoretical Model for an Extended Taxonomy of Schema Modes that is Applicable Across Cultures**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

**Marleen Rijkeboer, University of Maastricht, the Netherlands**

**Chris Lee, University of Western Australia, Australia**

**Eshkol Rafaeli, Bar-Ilan University, Israel**

**Marta Panzeri, University of Padua, Italy**

**Alp Karaosmanoglu, Psikonet Psychotherapy & Training Center Istanbul**

**Edward Chan, International Psychology Center Malaysia, Malaysia**

**Eva Fassbinder, University of Luebeck, Germany**

The last decades Schema Therapy (ST) has become popular around the world. The model of psychopathology that underlies ST is based on the assumption that when basic emotional needs are insufficiently met in childhood, there is an increased chance that maladaptive schemas develop that can underlie personality pathology. Furthermore, the theory states that when such early maladaptive schemas are triggered, the individual can switch into a specific emotional-cognitive-behavioral state (called schema mode), depending on how the individual copes with the schema activation. Young proposed three maladaptive ways of coping with schema activation: surrender (where the activated schema rules the state of the person); avoidance (where avoidant strategies rule the person); and overcompensation (where believing that the opposite of the schema is true rules the person). An international workgroup is devising a new questionnaire to assess the most important schema modes, which will be validated internationally - so that from scratch on the instrument will be reliable and valid across cultures.

This presentation offers an overview of the project, which started with a fundamental reconsideration of the basic emotional needs of children and adults, and a strict application of Young's theory of coping with schema activation. Based on Dweck's analysis of fundamental needs it is argued that an important need has been overlooked in ST: that is the need of a coherent self- and world view. Also, the international workgroup felt that the need for justice was overlooked. The resulting schemas and schema modes will be discussed, and specific attention will be paid to the confusion so far between temperament and ways of coping with schema activation.

### **Mechanisms of Change in Schema Therapy: Evidence for Schema Modes as Universal Mechanisms of Change in Personality Pathology and Functioning**

**Duygu Yakin, Istanbul Arel University, Turkey**

**Raoul Grasman & Arnoud Arntz, University of Amsterdam, the Netherlands**

**Objective.** Schema therapy is an effective treatment for personality disorders. Central to ST is the focus on changing so-called schema modes. We aimed to empirically test whether schema modes are central in the change process, i.e., predictive of personality pathology, and global and social-occupational functioning.

**Method.** A multicenter randomized controlled trial was conducted in 12 Dutch mental health institutes (N = 139 men, N = 181 women) over the course of three years. The repeated assessments of schema modes, personality disorders (avoidant, dependent, obsessive-compulsive, paranoid, histrionic, and narcissistic), and functioning were analyzed using a multilevel autoregressive model. Through a process of backward elimination, the central schema modes predictive of the dependent variable (i.e., PD-severity and functioning) at a later point in time were identified while controlling for concurrent dependent variable levels. Analyses of functioning controlled for current levels of personality pathology. Bidirectionality was tested by assessing whether dependent variables predicted later schema modes.

**Results.** The Healthy Adult, Vulnerable Child, Impulsive Child, and Avoidant Protector modes predicted later personality pathology, with no bidirectionality observed for the first two. The Healthy Adult and Self-Aggrandizer modes predicted functioning at a later point in time, with no bidirectionality for Self-Aggrandizer. There was no moderation by treatment type for PD symptomatology, except Self-Aggrandizer, which predicted functioning.

**Conclusions.** The Healthy Adult and Vulnerable Child modes are central to the change process and appear to reflect universal mechanisms of change. Our findings support the recent emphasis on these modes in ST. Treatment of personality disorders should especially focus on these aspects of the patient.

### **Early Maladaptive Schemas and the Therapy of Depression**

**Johannes Kopf-Beck, Samy Egli, Nils Kappelmann, Julia Fietz, Martin L. Rein, Rek Katharina & Martin E. Keck, Max Planck Institute of Psychiatry, Germany**

**Introduction**

Early maladaptive schemas (EMS) are considered to function as underlying constructs during the development of psychopathologies and psychiatric disorders such as depression. However, the relation between specific schema domains and the progress in the treatment of depression remains unclear. In the current research, data from a large scale randomized controlled trial (RCT) which focuses on the effectiveness of different forms of psychotherapy, such as Schema Therapy (ST), cognitive-behavioral therapy (CBT), and individual-supportive therapy (IST) for patients suffering from depressive disorders will be presented.

**Materials & Methods**

All participants (N = 139) perceive an intense, combined treatment program of group- and single sessions of psychotherapy plus antidepressant Medicine (ADM) in a day clinic and inpatient setting over the course of seven weeks. Young Schema questionnaire and Beck Depression Inventory were used in order to assess schemas before the treatment and depression severity on a weekly base during the treatment and 6 months after the discharge. Latent class analysis (LCA) was applied to identify schema patterns.

**Results**

Two major schema patterns, defined by high versus low schema load across all domains, and two smaller latent classes of schemas profiles which were characterized by "Impaired autonomy and limits" and "Disconnection and overvigilance" were identified. Regarding the symptom development, the latter two differed mainly during the final treatment phase and after the end of the therapy.

**Conclusion**

The presented preliminary results give insights into schema patterns of patients suffering from depression and the development of symptom severity over the course of an eight-week combined medication psychotherapy treatment. They define potential risk groups for relapse after discharge. Implications for psychotherapeutic treatments will be discussed.

### **Using Experience Sampling to Assess Prevalent Schema Modes**

**Gal Lazarus, Bar-Ilan University, Israel**

#### **Introduction:**

Schema modes - the predominant schemas, emotional states, and coping reactions activated at a particular time – are central to the conceptualization and treatment of clients in ST. However, though modes are by definition transitory and dynamic, current assessment tools are cross-sectional. These tools may be limited in capturing individuals' schema modes' fluctuations and functional relationships as they are blind to the crucial dynamics that occur within clients, over time. The present work introduces preliminary findings from two pilot studies assessing schema modes repeatedly as individuals go about their daily lives. For this purpose, we designed the Momentary Schema Modes Questionnaire (MSMQ). The MSMQ was adapted from the short form of the Schema Mode Inventory (SMI; Lobbestael, van Vreeswijk, Spinhoven, Schouten, & Arntz, 2010).

#### **Method:**

The MSMQ is a 35-item self-report questionnaire assessing the present moment activation of eleven schema-modes. Items are rated on a five-point Likert scale. In Study 1, fifty university students completed the MSMQ 3 times daily for a period of 10 consecutive days. In Study 2, fifty university students completed a slightly revised version of the MSMQ 4 times daily for a period of 14 consecutive days. Additionally, participants completed the short form of the SMI. Reliability and construct validity of the MSMQ were assessed, as well as the stability of the correlations structure across the two studies.

#### **Results:**

Internal consistency for all the schema modes was adequate. Correlations between the respective SMI and MSMQ schema modes were moderate (mean  $r = 0.42$ , ranging between 0.23 and 0.54).

#### **Discussion:**

These findings point to the potential benefits of assessing schema modes as they occur in individuals' daily lives rather than retrospectively. Further examination of the MSMQ in clinical samples is required. The presented time-series data would permit the use of more sophisticated analytic techniques, such as dynamic factor analysis and dynamic network analysis, which would help identify central causal agents (i.e., modes) in clients' psychological difficulties.

**Conclusion:** The MSMQ provides a glimpse into individuals' dynamic mode profiles, without reliance on retrospection. It also permits a direct assessment of mode transitions. Finally, like other intensive assessment tools developed in recent years, it may prove to be a useful tool for tailoring personalized treatments based on in-vivo assessments prior to therapy onset.

### **Priovi, a Schema Therapy-Based eHealth Program for Patients with Borderline Personality Disorder to Support Individual Face-To-Face Schema Therapy: An Uncontrolled Pilot Study**

**Eva Fassbinder, University of Lubeck, Germany**

**Andrea Hauer, GAIA Hamburg, Germany**

**Sandra Köhne, Nele Assmann, Anja Schaich & Ulrich Schweiger, University of Lubeck, Germany**

**Gitta Jacob, GAIA Hamburg, Germany**

**Background:** Electronic health (eHealth) programs have been found to be effective in treating many psychological conditions. However, regarding borderline personality disorder (BPD), only a few eHealth programs have been tested, involving small interventions based on the dDialectical bBehavior tTherapy treatment approach. We investigated priovi®, a program based on the sSchema tTherapy (ST) approach. priovi is considerably more comprehensive than prior programs, offering broad psychoeducation content and many therapeutic exercises. **Objective:** We tested the acceptability and feasibility of priovi was tested in 14 patients with BPD as an add-on to individual face-to-face ST. **Methods:** Patients received weekly individual ST and used priovi over a period of 12 months. We assessed BPD symptom severity was assessed with using self-reported and interview-based measures. Qualitative interviews were conducted both with both patients and therapists to assess their experiences with priovi.

**Results:** BPD symptoms improved significantly (Cohen's  $d = 1.0$ ). Overall, qualitative data showed that priovi was positively received by both patients and therapists. Some exercises provoked mild anxiety; however, no serious threat to safety was detected.

**Conclusion:** priovi is a potentially helpful and safe tool that could support individual ST. It needs to be further tested in a randomized controlled study.

### **Double Symposium New Developments in Schema Therapy, Part 2**

**Convenor: Marleen Rijkeboer, Maastricht University, the Netherlands**

**Chair: Arnoud Arntz, University of Amsterdam, the Netherlands**

#### **Schema Therapy for (Chronic) Depression – What Do We Know and Where Can We Go?**

**Marcus Huibers, Vrije Universiteit, the Netherlands**

**Fritz Renner, Freiburg University, Germany**

**Jill Lobbestael & Frenk Peeters, Maastricht University, the Netherlands**

**Robert DeRubeis, University of Pennsylvania, USA**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

The topic of this presentation is the application of schema therapy in recurrent and chronic depression from a scientific perspective. The speaker will start with a rationale why schema therapy might work for depression as well. He will then give an overview of the empirical schema theoretic foundations, discuss possible modes of action and evaluate the clinical evidence of schema therapy in the treatment of depression by presenting empirical data exploring the effectiveness and potential mechanisms of symptom change in individual schema therapy of chronically depressed patients, with a special focus on schema modification and therapeutic alliance. He will also present preliminary findings on the effects of group schema therapy for 'complex' depression. Clinical and research implications will be discussed based on the presented data.



## **Schema Therapy in DID**

**Rafaele Huntjens, University of Groningen, the Netherlands**

**Marleen Rijkeboer, Maastricht University, the Netherlands**

Dissociative Identity Disorder (DID) is a complex, severe, and highly disabling disorder that is associated with reported childhood trauma. Patients suffering from DID report to experience several identity states, and they tend to regularly switch between these identity states. Also, they frequently report experiences of depersonalization, derealization, and inter-identity amnesia. However, experimental studies have indicated that memory and identity functioning is much less compartmentalized than previously thought.

Hitherto, effect studies of DID treatment are scarce, and results indicate that it is suboptimal (e.g., lengthy, high drop-out rates, in many cases stabilization only). Whilst Schema Therapy (ST) has established effectiveness in other trauma-related disorders, and the model acknowledges the subjective experience of different modes, ST seems a feasible option for DID treatment. Therefore, we developed an adapted form of ST for DID, which is currently tested in a multiple baseline case series design.

In this presentation we will discuss the experimental research into inter-identity cognitive functioning that functioned as the background for developing schema therapy for DID. We will also explain the main adaptations that were made to schema therapy for trauma-related disorders specifically for these dissociative patients. The mode model offers a viable treatment alternative, and first observations with ST for DID are positive, e.g., shifting between modes becomes less extreme, and daily functioning improves.

ST is a promising treatment for DID, whilst it is in line with experimental research into the nature of DID, and it helps patients to normalize their symptoms while providing an explanation for the subjective experience of separate identities.

## **Schema Therapy as Treatment for Adults with Autism Spectrum Disorder and Comorbid Personality Disorder**

**Richard Vuijck, SARR Autism Expertise Centre and Parnassia Group, the Netherlands**

**Mathijs Deen, Parnassia Group, the Netherlands**

**Hilde Geurts & Arnoud Arntz, University of Amsterdam, the Netherlands**

Background: To our knowledge treatment of personality disorder (PD) comorbidity in adults with ASD is understudied and is still in its infancy. This study investigates the effectiveness of schema therapy for PD-psychopathology in adult patients with both ASD and PD.

Methods/Design: Twelve adult individuals (age > 18 years) with ASD and at least one PD are given a treatment protocol consisting of 30 weekly offered sessions. A concurrent multiple baseline design is used with baseline varying from 4 to 9 weeks, after which weekly supportive sessions varying from 1 to 6 weeks start with the study therapist. After baseline and 1 to 6 supportive sessions, a 5-week exploration phase follows with weekly sessions during which current and past functioning, psychological symptoms, and schema modes are explored, and information about the treatment is given. This is followed by 15 weekly sessions with cognitive-behavioral interventions and 15 weekly sessions with experiential interventions: patients are vice versa and randomly assigned to the interventions. Finally, there is a 10-month follow-up phase with monthly booster sessions. Participants are randomly assigned to baseline length, and report weekly during treatment and monthly at follow-up on Belief Strength of negative core beliefs, and fill out SMI, SCL-90 and SRS-A 7 times during screening procedure (i.e. before baseline), after supportive sessions, after exploration, after cognitive and behavioral interventions, after experiential interventions, and after 5- and 10- month follow-up. The SCID-II is administered during screening procedure, at 5- and at 10-month follow-up.

## **Comparing Group Schema Therapy Versus Group Cognitive Behavioral Therapy for Patients with Social Anxiety Disorder and Comorbid Avoidant Personality Disorder**

**Astrid Baljé & Anja Greeven, Leiden University and PsyQ, the Netherlands**

**Anne van Giezen, Leiden University, the Netherlands**

**Kees Korrelboom, Tilburg University & PsyQ, the Netherlands**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

**Philip Spinhoven, Leiden University, the Netherlands**

Comparing group schema therapy versus group cognitive behavioral therapy for patients with social anxiety disorder and comorbid avoidant personality disorder

Social anxiety disorder (SAD) is highly prevalent and often occurs comorbidly with avoidant personality disorder (APD). APD is associated with serious psychosocial problems and high societal costs. For patients with SAD, the most common psychological treatment is cognitive behavioral therapy (CBT). For patients with comorbid SAD and APD, there is no consensus in clinical practice about which treatment is indicated and guidelines are scarce. Dutch multidisciplinary guidelines recommend extended group CBT for patients who suffer from both SAD and APD. A viable alternative treatment to CBT for these patients could be schema therapy (ST). Evidence for the effectiveness of ST for personality disorders is growing. These disorders, including APD, are characterized by negative and sometimes traumatizing childhood experiences resulting in maladaptive coping strategies that still influence patients' daily life. The focus of ST on childhood origins and on acquiring more adaptive coping styles might make this therapy particularly effective for patients who suffer from comorbid SAD and APD. In the current study we adjusted the ST mode model developed by Farrell and Shaw to a 30-week semi-open group schema therapy treatment (GST) for patients with comorbid SAD and APD. We compared this treatment to a 30-session semi-open group CBT (GCBT). The latter, with emphasis on exposure and falsification of automatic thoughts and core cognitions, was based on the CBT protocol of Heimberg for patients with SAD. We conducted a multicenter 2-group (GST and GCBT) randomized controlled trial to compare the effectiveness of the two treatments. We included N=154 patients who suffered from both SAD and APD and formulated the following research question: What is the effect of extended GCBT compared with GST for SAD with APD? In the current presentation we show the preliminary results of this RCT and discuss implications for clinical practice.

## **Efficacy of Imagery with Rescripting in Treating OCD: A Single Case Experimental Design**

**Barbara Basile, Katia Tenore, Olga Ines Luppino, Brunetto De Sanctis, Teresa Cosentino, Angelo Saliani & Claudia Perdighe, School of Cognitive Psychotherapy, Italy**

**Francesco Mancini, School of Cognitive Psychotherapy and Marconi University, Italy**

Imagery with Re-scripting (ImRS) is one of the most used emotion-focused techniques in Schema Therapy (ST, Young et al. 2003). It is used to change the meaning of negative memories, to allow cognitive re-structuring and to link patient's current problems to core schemas related to early-life negative experiences. There is increasing evidence about the efficacy of ImRS in symptoms' reduction in both Axis I and II disorders (Arntz 2012, Morina et al. 2017).

The aim of this study is to verify the efficacy of ImRS in reducing obsessive-compulsive disorder (OCD) symptoms. It is well established (Mancini 2018, Salkovsis 1999, Berle & Phillips 2006; Rachman 1993) that guilt plays a role in OCD genesis and maintenance. Accordingly, in this study we want to assess the efficacy of three single-sessions of ImRS, focusing on guilt-related early experiences, in treating obsessive symptoms.

Twenty-two patients with OCD were recruited for the study, with 18 patients (mean age=33,5, SD=9, 10 males, mean disease duration=14,2 years) concluded the whole protocol. Obsessive symptoms' severity, intrusive thoughts' frequency and belief strength, depression and anxiety, and guilt and disgust emotions were measured at baseline, after the three ImRS sessions, and at three months follow-up.

Analyses showed that OCD symptoms significantly decreased at three months follow-up, with 15 patients showing a reliable change in symptoms' improvement in the Y-BOCS, and in their strength of the belief in specific interpretations of their intrusive thoughts. As well, trends in guilt decreases were also observed at follow-up. No differences in rates of depression, anxiety or disgust were detected.

Our findings suggest that three single-sessions of guilt-related ImRS interventions succeeded in reducing obsessive symptomatology. These results further strengthen the role of ImRS in reducing symptoms' severity, without a direct intervention on obsessions and compulsions (Veale et al. 2012). Our results also support previous cognitive models on OCD (Mancini 2018, Salkovsis 1999), highlighting the specific role of guilt-related early life experiences in contributing to the historical vulnerability to the disorder.

## **New Developments in Acceptance and Commitment Therapy: Effectiveness in Different Settings and Patient Groups**

**Convenor: Anne Katrin Risch, Friedrich-Schiller-University Jena, Germany**

**Chair: Anne Katrin Risch, Friedrich-Schiller-University Jena, Germany**

### **Helping Dementia Caregivers Deal with Guilt: Acceptance and Commitment Therapy in a Group Setting**

**María Marquez Gonzalez & Laura Gallego-Alberto, Universidad Autónoma de Madrid, Spain**

**Rosa Romero-Moreno, Universidad Rey Juan Carlos de Madrid, Spain**

**Isabel Cabrera, Beatriz Simón & Ana Pérez-Miguel, Universidad Autónoma de Madrid, Spain**

**María Pedroso & Andrés Losada-Baltar, Universidad Rey Juan Carlos de Madrid, Spain**

Acceptance and Commitment Therapy (ACT) is a third generation therapy which, in the last years, is receiving increasing empirical support as an effective therapy for emotional and health-related disorders in the general population. In a previous work (Losada et al., 2015), our team examined the differential efficacy of individually delivered acceptance and commitment therapy (ACT) and cognitive-behavioral therapy (CBT) for dementia family caregivers through a randomized controlled trial. This study revealed significant and similar effects of both interventions on caregivers' level of anxiety and depression, as compared with a control group. The emphasis on acceptance of aversive thoughts and emotions, and the work on clarifying and reconnecting with personal values seem to be key ingredients of ACT, which may make this therapy specially suitable for dementia caregivers showing high levels of experiential avoidance and/or problems for acknowledging and committing to their values. Some research studies, as well as clinical experience with dementia caregivers, reveal that aversive feelings and thoughts related to the experience of guilt are rather ubiquitous in this population, and may be very related to experiential avoidance and lack of commitment with personal values. Despite its frequency, the experience of guilt-related feelings remains underexplored by research and under-addressed in the intervention field. Currently, we are in the process of testing a novel ACT-based group intervention which is aimed at helping caregivers deal with guilt-related experiences. Very encouraging results are being found in the first deliveries of this interventions (a pilot study and two group interventions). Specifically, clinically significant changes in guilt feelings, anxiety and depression, among other positive effects have been found. These results will be presented in this seminar, and the implication of these findings will be discussed.

### **Telephone-Based ACT for Dementia Family Caregivers**

**Anne Katrin Risch, University of Jena, Germany**

**Franziska Meichsner, Goethe University Frankfurt, Germany**

**Gabriele Wilz, University of Jena, Germany**

**Background:** Most of the worldwide 50 million people living with a form of dementia (Alzheimer's disease International, 2015) are cared for at home by a family member. Dementia caregiving is a highly demanding task, due to uncontrollable situations (such as behavior disturbances by the patient), frustration and anger, helplessness, social isolation, little leisure time and positive reinforcement, role change, loss and grief. Caregivers of people with dementia therefore have more symptoms of depression and anxiety, lower quality of life, and higher rates of morbidity and mortality than non-caregivers of the same age group. Considering the severe burden on dementia caregivers, effective interventions are a societal necessity. Acceptance- and Commitment Therapy (ACT), an approach focusing on acceptance of unchangeable situations and aversive thoughts and emotions, as well as the commitment to personal values, seems to be a suitable treatment for dementia caregivers. A recent study found that, compared to a control condition, individual face-to-face ACT can decrease depression and anxiety in dementia caregivers. It is, however, difficult for caregivers to access such programs because they need to supervise the person with dementia for most of the day and often live in rural areas.

**Method:** We developed a telephone-based ACT that allows caregivers to access psychotherapeutic treatment without leaving their homes and tested its efficacy in a randomized-controlled trial. 81 caregivers (= 55% female, age: M = 61 years) were randomly assigned to either an 8-week telephone-based ACT or a control group (treatment as usual). Therapy was performed by licensed therapists, who received regular supervision.

**Results and Discussion:** Multivariate multilevel analyses showed that participants who received ACT had fewer symptoms of depression, fewer dysfunctional thoughts, and higher resource realization regarding coping with daily hassles and social support at post treatment. At six-month follow up, caregivers in the ACT condition showed fewer physical symptoms, better coping with pre-death grief, and better realization of resources regarding coping with daily hassles compared to caregivers in the control condition. The results of this study are consistent with previous findings regarding the positive effects of ACT and further expand on them by indicating that a short-term telephone-based ACT intervention is an effective and suitable intervention for dementia caregivers.

### **Transdiagnostic ACT for In- and Out-Patients**

**Andrew Gloster, Jeanette Villanueva, Victoria Firsching, Charles Benoy, Marcia Rinner, Veronika Kuhweide, Marc Walter & Klaus Bader, University of Basel, Switzerland**

Few studies have tested whether psychotherapy is a viable option for treatment-resistant patients. Information is needed about both treatment options and processes of change vs. continued non-response. This study examined whether Acceptance and Commitment Therapy (ACT) would be helpful for a transdiagnostic group of patients with non-response to previous treatments. ACT was administered in specialized inpatient and outpatient units. Patients completed assessments throughout treatment including state-of-the-art event sampling methodology (ESM) in order to capture mechanisms of change. Pilot data showed large decreases in symptoms ( $d = 0.9$ ) and medium increases in well-being ( $d = 0.5$ ). Data will be presented on pre-post outcomes and processes of change. Factors impacting treatment outcomes will be discussed.

### **Strengthen Towards-Moves in Hospital Treatments for Patients with Mental Disorders**

**Nina Romanczuk-Seiferth, Charité – Universitätsmedizin Berlin, Germany**

This talk is on the specific challenges in changing deficit- and symptom-focused behavior of patients towards value-oriented directions in the process of treatment. Further, we discuss the requirements for facilitating those kinds of change processes in the patients as well as in multi-professional teams themselves. Psychological flexibility is a key marker and also a moderator of this processes, thus we discuss different ways of promoting psychological flexibility in multi-professional treatment settings. For example, ACT matrix groups are a helpful tool that can be delivered not only by psychologists or psychiatrists, but also by nurses, social workers and other professionals. We present results of a study about nurse-led matrix groups in a pain treatment center of a general hospital in Berlin. This study further includes a comparison of the subjective treatment responses of 67 German and 21 Vietnamese patients to this kind of intervention, which will also be discussed.

### **An Internet-Based Acceptance and Commitment Therapy Intervention for Older Adults with Anxiety Complaints**

**Maartje Witlox, Philip Spinhoven, Nadia Garnefski & Vivian Kraaij, Leiden University, the Netherlands**

Anxiety is among the most prevalent and disabling mental health problems in older adults. Few older adults with mild to moderately severe anxiety symptoms receive adequate interventions, putting them at risk for developing anxiety disorders, depression, and various somatic problems. Effective, low-threshold interventions should be developed. Blended care, in which a web-based intervention is combined with a limited amount of face-to-face contacts with a mental healthcare counselor, is a promising option. The online self-help intervention “Living to the Full”—an Acceptance and Commitment Therapy (ACT) intervention—has been proven to reduce depression and anxiety in several patient groups, but has not yet been investigated in older adults. In this talk an ongoing randomized controlled trial that applies internet-based ACT to older patients with anxiety complaints will be discussed. Preliminary findings regarding feasibility and therapist and patient experiences will be presented.

### **Reaching the Hard to Reach: Innovative Approaches to Enhance Cognitive Behavior Therapy and Its Delivery**

**Convenor: Roz Shafran, University College London, United Kingdom**

**Chair: Roz Shafran, University College London, United Kingdom**

### **Enriching Cognitive Behaviour Therapy with Emotion Regulation Training for Patients with Medically Unexplained**

**Symptom: Findings of the Multicentre Randomized Controlled ENCERT Trial**

**Winfried Rief, University of Marburg, Germany**

**Johannes Schwabe, Ludwig Maximilian University of Munich, Germany**

**Maria Kleinstäuber, University of Auckland, New Zealand**

**Alexandra Martin, University of Wuppertal, Germany**

**Bernhard Löwe, University Hospital of Hamburg-Eppendorf, Germany**

**Peter Henningsen, Technical University of Munich, Germany**

**Claas Lahmann, University of Freiburg, Germany**

**Annette Schröder & Jens Heider, University of Koblenz-Landau, Germany**

**Aims:** Medically unexplained symptoms are likely to have a persistent course and to be associated with disability and high health care costs. Cognitive behaviour therapy (CBT) is recommended as first-choice treatment in various national treatment guidelines. Although CBT has a strong evidence of efficacy, effect sizes are only moderate. Previous research demonstrated deviations in emotional processing in MUS patients from healthy subjects. Therefore, the central aim of the current study was to find out if the therapy outcome can be improved when CBT is complemented with emotion regulation training.

**Methods:** For a multicenter RCT 255 patients were recruited and randomly assigned to 20 sessions of either conventional CBT ( $N = 128$ ) or CBT with emotion regulation training (ENCERT;  $N = 127$ ). Eligible participants had to be diagnosed with at least 3 persisting, distressing and disabling MUS. The primary outcome (somatic symptom severity) and secondary outcomes (symptom disability, depressive symptoms, health anxiety, general psychopathology, symptom coping, quality of life, emotion regulation skills) were assessed at pre-treatment, session 8, end of therapy, and at 6-month follow-up.

**Results:** Hierarchical linear mixed-effect models revealed strong improvements for primary and secondary outcomes in the ITT-samples of both treatment groups. Significant time\*group interactions indicated stronger beneficial effects of ENCERT for the secondary outcomes health anxiety, emotion regulation skills, general psychopathology, and symptom coping. Results of moderator and mediator analyses allude to higher effects of ENCERT in subgroups with comorbid mental disorders.

**Conclusions:** Current findings are based on a high-quality randomized, multisite, controlled study design and a large, thoroughly screened sample. The results demonstrate that CBT as well as CBT complemented with emotion regulation training have strong effects on primary as well as secondary outcomes in MUS patients. Reasons why both interventions resulted in substantially stronger effect sizes than other published trials will be discussed.

## **Using Qualitative and Quality Improvement Methods to Develop Online Guided Self-Help for Low Mood in Young People with Cancer**

**Anna Coughtrey, UCL Great Ormond Street Children's Hospital, United Kingdom**

**Deborah Christie, University College London Hospital, United Kingdom**

**Hannah Allcott-Watson, Merina Su & Roz Shafran, UCL Great Ormond Street Institute of Child Health, United Kingdom**

**Rachael Hough, University College London Hospital, United Kingdom**

**Background:** Every year over 2000 young people aged 13-24 years are diagnosed with cancer in the UK. These young people have an increased risk of low mood following diagnosis and throughout treatment and remission. However, low mood often goes undiagnosed and evidenced based psychological therapies are rarely provided. There is evidence that guided self-help, including online cognitive behavioural therapy, is an effective low-intensity treatment for mild-to-moderate depression in young people, but such interventions are not routinely used in adolescent cancer services.

**Aims:** The aim of this project was to develop a guided online self-help treatment package for low mood in cancer for young people based on the Modular Approach to Therapy for Children with Anxiety, Depression, Trauma or Conduct Problems (MATCH-ADTC).

**Methods:** We conducted a) three focus groups and twenty individual interviews with health professionals working with young people with cancer, and b) one focus group and twenty individual interviews with young people with cancer. The results of these focus groups and interviews were used to develop an online treatment package which was developed using a plan-do-study-act (PDSA) approach by making iterative improvements to the website.

**Results:** Young people and staff expressed an interest in having access to online guided self-help which could be used as a first step in the treatment of low mood in cancer. The qualitative results helped guide our development and personalisation of the MATCH-ADTC materials. The website was best conceptualised as a resource rather than an intervention. This allowed young people to 'dip in and out' of different modules and take control over their own mental health.

**Conclusions:** An online guided self-help intervention shows promise as a first step for treating low mood in young people for cancer. The key adaptations made to the MATCH-ADTC materials were to include cancer-specific examples. The approach taken in this study has implications for the implementation of evidence-based psychological treatments in other long term physical health conditions.

## **Preliminary Efficacy of Telephone Guided Self-Help for Emotional and Behavioural Difficulties in Children and Young People with Neurological Conditions: A Pilot Study**

**Sophie Bennett, University College London, United Kingdom**

**Epilepsy and Mental Health Feasibility Studies Research Groups, UCL Great Ormond Street Institute of Child Health, United Kingdom**

### **Introduction**

Despite the high prevalence of mental health disorders in children and young people with neurological conditions and associated adverse outcomes, they are frequently not detected or effectively treated. The proportion of children with epilepsy and mental health problems who are in receipt of any mental health care has been estimated at between only 20% and 50% and parents of children with epilepsy are more likely to report unmet need for mental health services than those of children without epilepsy. Guided self-help can be used to increase access to therapies for groups that are hard to reach. It is cost effective and is similar in efficacy to face-to-face treatment in children and young people with mental health disorders.

### **Aim**

The study aimed to pilot a telephone guided self-help intervention for common mental health disorders based on the Modular Approach to Therapy for Children (MATCH-ADTC) in a group of patients at a tertiary paediatric neurology service. As a pilot study, the primary aim was to establish an effect size to inform a future fully powered Randomised Controlled Trial.

### **Method**

#### **Design**

Children and young people attending neurology clinics who met criteria for impairing symptoms of mental health disorder were randomised to: (a) Guided self-help for their emotional and/or behavioural difficulties over 12 weeks (GSH group) or (b) Remaining on the waiting list for guided self-help with no additional intervention over 12 weeks (WLC group). The primary outcome measure was the Strengths and Difficulties Questionnaire (SDQ).

#### **Research Questions**

We aimed to investigate:

1. Whether the components of the study worked effectively together (i.e. recruitment procedures, data collection procedures and intervention procedures)
2. Recruitment and retention rates
3. The expected effect size for the primary outcome measure
4. The acceptability to young people and families of both the study design (e.g. randomisation, measures, etc.) and the intervention

#### **Participants**

17 participants were randomised into the guided self-help arm (8 males; mean age 12.04 years, sd 3.34) and the Waiting List Control arm (9 males; mean age 10.53 years, sd 3.14).

#### **Analysis**

Data were collected on feasibility variables such as recruitment, retention and attrition rates, intervention characteristics (number of sessions, adherence to protocol) and acceptability to participants. The effect size analysis used the end-of-treatment SDQ assessment to compare the intervention and waiting list control arm in mixed models ANOVAs (Time X Group).

#### **Results**

The results demonstrated that children receiving guided self-help for mental health disorders in the context of epilepsy had significant improvement on the SDQ and goal-based measures. The study components worked effectively together, recruitment was highly feasible and both the study procedures and intervention were acceptable to patients.

#### **Discussion**

The MATCH-ADTC intervention has clear potential for use in this group and a larger full-scale trial is warranted. As the intervention was not adapted specifically for epilepsy, guided self-help using MATCH could also be used for treating mental health disorders in the context of other chronic physical illnesses.

## **Implementing Evidence Based Practices in Children's Community Mental Health**

**Daniel Cheron, Judge Baker Children's Centre, USA**

**Angela Chiu, Weill Cornell Medicine, USA**

**Cameo Stanick, Hathaway-Sycamores Child and Family Services, USA**

**Gemma Stern, Rutgers University, USA**

**Aberdine Donaldson, Northeastern University, USA**

**Emily Becker-Haimes, University of Pennsylvania, USA**

**Eric Daleiden, PracticeWise, LLC, USA**

**Bruce Chorpita, The University of California, USA**

There is strong enthusiasm for the implementation of evidence-based programs in the complex setting of community mental health. Efforts to diffuse these evidence-based programs have increased the utilization of implementation science in this process, but there remains a great deal of work to be done to ascertain the transportability of research findings and improve the implementation process in community mental health settings, especially for children with multiple mental health needs. Numerous implementation frameworks have been developed to guide the dissemination of new programs in a variety of settings. Yet, despite the proliferation of these frameworks, there has been relatively limited literature that provides concrete examples of implementation successes and challenges to inform practice and policy in children's community mental health. This symposium provides a view into the implementation of the Modular Approach to Therapy for Children (MATCH) at a large, multi-site community mental health agency. A total of 69 clinicians were trained in MATCH and provided services to a total of 189 youth ages 6 to 17 naturally presenting for outpatient, school, or home-based psychotherapy services. Weekly caregiver- and child-reported ratings of child internalizing and externalizing problems were collected via an electronic monitoring and feedback system. When data were benchmarked on a prior randomized, controlled trial of MATCH, results suggest that treatment improvements in the current sample were similar to those reported for MATCH clients in the prior RCT. These results support the transportability of this modular program into a diverse community-based clinic setting with minimal controls in place. This symposium will further discuss the implementation process that facilitated these outcomes, as well as the subsequent service utilization of these youth within the mental healthcare system. The implementation of structured training and professional development tools and use of data systems in the implementation process will be considered. Furthermore, administrative strategies to facilitate the implementation process will be presented to help individuals bring success to their organizational implementation initiatives.

## **Low Intensity Psychological Treatments in a Paediatric Hospital: Is There a Need and Does it Help?**

**Matteo Catanzano, Great Ormond Street Children's Hospital, United Kingdom**

**The Lucy Project Team, UCL Great Ormond Street Institute of Child Health, United Kingdom**

The Lucy Project team: S Bennett, A Coughtrey, I Heyman, E Kerry, R Kothari, H Liang, C Ludlow, N Mohammed, M Patel, R Shafran, R Souray, M Tibber.

Young people with a physical illness are at greater risk of developing emotional and behavioural difficulties. Such problems may have negative consequences on quality of life, the physical illness itself and on parental mental health. This study was part of a broader project, examining the acceptability, feasibility and impact of a Mental Health and Psychological Wellbeing Drop-in Centre in a hospital setting. The aims of this pilot investigation were: (i) to establish whether there is a need for such a resource amongst the hospital's patient population, (ii) to characterise the nature and severity of symptoms amongst patients presenting to the centre, and (iii) to establish the types of support that are requested and/or most needed. A drop-in "booth" located in reception at Great Ormond Street Hospital (GOSH), was run by clinicians and researchers, initially over the course of one week and subsequently from March-December 2018 (Monday to Friday), serving as a focus for recruitment and space for treatment, with a clinical psychologist and/or psychiatrist on-call throughout. Basic demographic data were gathered and symptom severity measured using standardised emotional and behavioural difficulties questionnaires including the Strengths and Difficulties Questionnaire (SDQ), and parental anxiety and depression measures including the Generalised Anxiety Disorder 7 (GAD-7) and Patient Health Questionnaire 9 (PHQ-9). Participants subsequently received one of four broad categories of intervention: low-intensity cognitive behaviour therapy (CBT), referral, neuropsychiatric assessment or signposting to resources.

128 participants consented and 82 completed baseline measures and were allocated to an intervention. The mean age of young people was 9 years (IQR: 7 - 12); 56% identified as White British and 52% were male. Primary problems identified included: anxiety (42%), challenging behaviour (44%) and low mood (14%). Whilst 70% of young people recruited met caseness with respect to scores on the SDQ, 70% and 60% of parents met caseness for anxiety and depression, respectively. Fifty-two percent of families reported never having received mental health input for their child. Allocated interventions included: referral (48%), low-intensity CBT (35%), signposting to resources (13%) and neuropsychiatric assessment (4%). A considerable proportion of patients and relatives attending GOSH met caseness for common mental health problems, indicating a potential, as yet unmet, need. One solution may involve having a drop-in centre serving the dual role of 1) single point of access including self-referral and 2) site for low-intensity psychological interventions.

Funding: this project was funded by The Beryl Alexander Charity and Great Ormond Street Hospital Children's Charity.

## **Pharmacological Enhancement of Psychological Treatments**

**Convenor: Marcel van den Hout, Utrecht University, the Netherlands**

**Chair: Marcel van den Hout, Utrecht University, the Netherlands**

**Discussant: Merel Kindt, University of Amsterdam, the Netherlands**

## **Pharmacological Manipulation of Reconsolidation in Humans: Promises and Pitfalls**

**Jamie Elsey & Merel Kindt, University of Amsterdam, the Netherlands**

Recent decades have seen a surge of interest in the phenomenon of reconsolidation - the putative susceptibility of memory to interference after certain types of reactivation. Charting a path from animal experiments in the late 90s to human experimental models in the mid-to-late 00s, the prospect of now harnessing reconsolidation for clinical applications is truly exciting. In this talk, I will discuss the use of the noradrenergic betablocker propranolol as a means of interfering with memory reconsolidation in humans. We will explore the prospects and challenges facing such reconsolidation-based interventions for real fears in relation to a controlled, systematic pilot study of a fear of public speaking intervention. Are such treatments effective and, if so, can we attribute their effects to reconsolidation blockade?

### **The Effects of Yohimbine on the Degrading Effects of Eye Movements on Autobiographical Memories**

**Marianne Little, Erasmus University, the Netherlands**

**Marcel van den Hout, Iris Engelhard, Johanna Baas, Leon Kenemans & Suzanne van Veen, Utrecht University, the Netherlands**

**Kevin van Schie, Erasmus University, the Netherlands**

**Ilse van de Groep, Utrecht University, the Netherlands**

Eye movement desensitization and reprocessing (EMDR) is an effective treatment for posttraumatic stress disorder. It uses a dual-task approach: patients retrieve traumatic memories while making lateral eye movements (EM). This dual-task component renders the memories less vivid and emotional when they are later recalled again.

Recalling highly emotional autobiographical memories enhances noradrenergic neurotransmission. Noradrenaline strengthens memory (re)consolidation. However, memories become less vivid after recall+EM. Therefore noradrenaline might either play no significant role or serve to strengthen memories that are attenuated by EM. In other words, arousal-related noradrenaline release might contribute to the reconsolidation of memories that have become inferior by a dual-task approach.

This talk discusses results of a recent study designed to test the possible beneficial effects of arousal-related noradrenergic activity on memory recall + EM. It was predicted that increasing noradrenaline release, with yohimbine, would enhance the memory degrading effects of EM compared to recall without EM. Results will be discussed in light of a series of related studies, including a study showing that the noradrenaline blocker propranolol abolishes the memory degrading effects of EM.

If arousal-related noradrenergic activity appears to be crucial to the reconsolidation of attenuated memories, this will help to understand the effectiveness of techniques that aim to update or re-write clinically relevant memories, such as EMDR, imagery re-scripting, extinction learning or CBT. Furthermore, the results might pave the path for more research on the use of pharmacological interventions to boost the effects of memory updating techniques or to increase positive memory recall.

### **Boosting Memories: The Effects of Yohimbine on the Saliency of Positive Autobiographical Memories**

**Suzanne van Veen, Utrecht University, the Netherlands**

**Kevin van Schie, Erasmus University Rotterdam, the Netherlands**

**Iris Engelhard, Utrecht University, the Netherlands**

**Marianne Littel, Erasmus University Rotterdam, the Netherlands**

**Leon Kenemans, Joke Baas, Thomas Brouwers & Marcel van den Hout, Utrecht University, the Netherlands**

Background: Increasing the accessibility and emotional intensity of positive autobiographical memories may improve the wellbeing of clinical populations who suffer from positive memory deficits or anhedonia. In this study we combined two novel methods to increase the saliency of positive autobiographical memories: Competitive Memory Training (COMET) and administration of the cognitive enhancer Yohimbine.

Methods. Thirty healthy individuals (18-30 years old) participated in a double-blind, full cross-over design. Medication group (yohimbine, placebo), imagery condition (COMET, no COMET) and time (pre-test, post-test, 2-day follow-up) served as within-subjects independent variables. Subjective ratings of ease of recollection, memory specificity, memory vividness and positive affectivity were the primary outcome measures. As a manipulation check, we also measured noradrenaline levels (i.e., salivary  $\alpha$ -amylase; sAA) and emotional arousal (i.e., heart rate and skin conductance level; HR and SCL).

Results. From pre-test to post-test, memories recalled with COMET were rated as easier to recollect, more specific and vivid, and they triggered higher positive affect than control memories did. After two days, these effects were smaller, but still significant for all subjective memory ratings except positive affectivity. sAA and SCL, but not HR, successfully differed between medication groups. We found non-significant trends that increases in specificity and positive affectivity were larger after yohimbine intake than after placebo. Moreover, we found positive correlations between SCL and the memory effects on specificity and positive affectivity.

Discussion. COMET techniques inflated positive autobiographical memories and these effects partially survived the passage of time. Future studies could test adaptations (e.g., daily rehearsal) to improve the lasting effects of this intervention. The beneficial effects of yohimbine on boosting the effects of COMET were limited.

### **The Effect of Cortisol Administration on Exposure Treatment Generalization in Spider Phobia**

**Armin Zlomuzica, Ruhr-University Bochum, Germany**

Cortisol administration prior to treatment can promote the efficacy of exposure-based treatments in specific phobia: cortisol has been proposed to reduce fear retrieval at the beginning of exposure and to enhance the acquisition and consolidation of corrective information learned during exposure. Whether cortisol exerts a beneficial therapeutic effect when given after exposure, e.g., by targeting the consolidation of new corrective information, has not been addressed so far to date. Here, we examined whether post-exposure cortisol administration promotes fear reduction and reduces return of fear following contextual change in specific phobia. Furthermore, the effect of cortisol on return of fear following contextual change (i.e., contextual renewal) was assessed. Patients with spider phobia (N = 43) were treated with a single session of in-vivo exposure, followed by cortisol administration (20 mg hydrocortisone) in a double-blind, placebo-controlled study design. Return of fear was assessed with behavioral approach tests (BATs) in the familiar therapy context (versus a novel unfamiliar context) at one-month and seven-month follow-up assessment. Exposure was effective in reducing fear from pre-treatment to post-treatment (i.e., 24 h after exposure) on fear-related behavioral (approach behavior during the BAT), psychophysiological (heart rate during the BAT) and subjective (fear during the BAT, spider-fear related questionnaires) measures of therapeutic outcome, with no add-on benefit of cortisol administration. Cortisol had no effect on contextual renewal at one-month follow-up. However, in a subsample (N = 21) that returned to the seven-month follow-up, an adverse effect of cortisol on fear renewal was found, with cortisol-treated patients showing an increase in subjective fear at the final approach distance of the BAT from post-treatment to seven-month follow-up. These and previous findings underline the importance of considering the exact timing of cortisol application when used as an add-on treatment for extinction-based psychotherapy: post-exposure cortisol administration does not seem to be effective, but might promote fear renewal at the subjective level.

## **Mechanisms and New Formats for Teaching Mindfulness**

**Convenor: Arnold van Emmerik, University of Amsterdam, the Netherlands**

**Chair: Arnold van Emmerik, University of Amsterdam, the Netherlands**

### **Mindfulness Apps as a Tool to Maintain Practice and Gains from Mindfulness-Based Stress Reduction (MBSR) Courses: A Randomized Controlled Trial**

**Arnold van Emmerik, Robin Keijzer & Tim Schoenmakers, University of Amsterdam, the Netherlands**

There is abundant evidence MBSR and other mindfulness interventions have positive effects on a wide range of clinical and non-clinical outcomes. As with cognitive behavioral therapy and other psychotherapies however, participants of MBSR find it hard to uphold a regular mindfulness practice after a mindfulness course has ended. As a result, the positive effects of MBSR may fade away. We are therefore conducting an online randomised controlled trial in MBSR participants, that examined if mindfulness apps can support participants in maintaining a regular mindfulness practice (and the benefits of such a practice) after their MBSR course has ended.

After their MBSR course, participants are randomly allocated to an experimental or to a control condition. In the experimental condition, participants receive information about mindfulness apps and three brief weekly reminders to encourage them to use these apps. In the control condition, participants receive no information or reminders. Immediately, 1 month, and 4 months after their MBSR course, participants complete questions about their mindfulness practice, mindfulness (Five Factor Mindfulness Questionnaire), general well-being (Mental Health Continuum-Short Form), and general psychological complaints (General Health Questionnaire-12). This talk presents the preliminary results of this study.

### **An Acceptance-Based and Emotion-Focussed Somatic Treatment for Complex Grief**

**Tim Schoenmakers, University of Amsterdam, the Netherlands**

#### **Introduction**

Whereas many therapies target emotional processing through cognitive and behavioral strategies, we tested a method that primarily focusses on feelings. The method is an acceptance-based, experiential exercise for emotional processing, based on mindfulness and Acceptance and Commitment Therapy. The exercise starts with a brief imaginary exposure to a painful memory. Subsequently, by verbal instructions, a therapist guides the participant to fully experience and accept the bodily sensations which have been activated by the exposure. Goal of the study was to explore the feasibility and potential effects of this method in people experiencing symptoms of complicated grief.

#### **Method**

We used a mix of qualitative and quantitative methods to test the feasibility and potential effectiveness of the method. Fourteen participants who (a) were grieving over the passing away or break up/divorce of a close one, and (b) who had complicated grief problems and felt they were stuck in their grief process were included. Participants were selected when they scored 20 or higher on the Core Bereavement Inventory (CBI; Burnett et al., 1997) which was slightly adjusted to be able to account for loss of romantic relationships (breaking up/divorce) as well as the death of a loved one.

Each participant received two therapeutic sessions on two consecutive days. We focussed on one loss per participant and selected three to five of their most painful memories associated with the loss. During each session, the exercise was performed 3 times, each time with a different memory. Before and after the intervention, we measured participants' emotion response to the memories and willingness to experience their emotions. In a semi-structured qualitative interview, we asked participants about their experience during the sessions, and about perceived effects, a week after the intervention. One month after the intervention, participants filled out a questionnaire on their bereavement problems.

#### **Results**

Preliminary analyses show decreases in the intensity of their emotional reactions toward the memories. Analyses further show decreases in symptoms of bereavement one week and one month after the procedure, as measured by the CBI. In the qualitative interviews, participants are overall positive about the exercise and do not find it distressful. They report insights in how to deal with emotions without getting overwhelmed by them. Various effects were reported during the interviews, such as: broadening of memories, a positive view on formerly negative memories, a sense of relieve, a change in the type of emotion (e.g. from sadness to anger).

#### **Conclusion & Discussion**

Overall, this method seems promising. For most participants, the intervention has led to positive changes in bereavement problems. It has helped the processing of their loss, as indicated by various self-reported effects on affect, cognition and behaviour. Although we have included pre- and post-tests, the study was uncontrolled and effects may, partly, be explained by for example mere attention or exposure effects. To test in how far the effects can be attributed to the specific exercise, and if effect sizes differ from other types of treatment, it needs to be tested in a controlled study.

### **The Process-Outcome Mindfulness Effects in Trainees (PrOMET) Study: Results of a Randomized Controlled Component Trial**

**Thomas Heidenreich, University of Applied Sciences Esslingen, Germany**

**Paul Blanck & Paula Kröger, University of Heidelberg, Germany**

**Christoph Flückiger, University of Bern, Switzerland**

**Hinrich Bents, University of Heidelberg, Germany**

**Wolfgang Lutz, University of Trier, Germany**

**Sven Barnow & Johannes Mander, University of Heidelberg, Germany**

Mindfulness can be defined as a specific form of attention that is non-judgmental, purposeful, and focused on the present moment. It has been well established in cognitive-behavior therapy in the last decades, while it has been investigated in manualized group settings such as mindfulness-based stress reduction and mindfulness-based cognitive therapy. However, there is scarce research evidence on the effects of mindfulness as a treatment element in individual therapy. Consequently, it has been highlighted to investigate mindfulness under naturalistic conditions in trainee therapists. To fill in this research gap, we designed the PrOMET Study. In our study, both patients and trainee therapists completed brief, session-introducing mindfulness exercises at the beginning of each individual therapy sessions. In a prospective, randomized, controlled design we investigated the effects of the session-introducing mindfulness exercise with a total of 30 trainee therapists and 150 patients with depression and anxiety disorders in a large outpatient training center. We hypothesized that the session-introducing intervention with mindfulness elements would have positive effects on therapeutic alliance and general clinical symptomatology

in contrast to the session-introducing progressive muscle relaxation and treatment-as-usual control conditions. Treatment duration was 25 therapy sessions. Therapeutic alliance was assessed on a session-to-session basis. Clinical symptomatology was assessed at baseline, session 5, 15 and 25. We conducted multivariate multilevel modeling to address the nested data structure. Our results showed that all three treatment conditions were of comparable efficacy related to alliance increase and symptom reduction. Results will be presented and discussed.

### **The Role of Acceptance in Mood Improvement During Mindfulness Based Stress Reduction (MBSR)**

**Susan Evans, Virginia Arlt Mutch & Katarzyna Wyka, Weill Cornell Medicine, USA**

The psychotherapeutic benefits of Mindfulness Based Stress Reduction (MBSR) are well established. As the field advances, there are clinically relevant reasons for identifying mechanisms of change including the opportunity to optimize effectiveness of their active components. Acceptance, associated with psychological flexibility and low experiential avoidance, is a psychological construct that may play a role in the relationship between mindfulness cultivated in MBSR and positive outcomes. The purpose of this study is to examine the moderating and mediating effects of acceptance on mood symptoms in a community-based sample participating in MBSR training. The sample consisted of 52 participants in an 8-week MBSR program at a major academic medical center and recruited via posted notices, broadcast email, and letters sent to the faculty. Participants completed the Profile of Mood States (POMS), Mindfulness Attention Awareness Scale (MAAS), and the Acceptance & Action Questionnaire (AAQ-II) at baseline and end of treatment. Results demonstrated that there was a statistically significant and clinically large reduction of symptoms on the POMS Total Mood Disturbance (TMD) from baseline to end of treatment (Baseline M = 95.34, SD = 47.43, Post M = 70.01, SD = 33.52;  $p < 0.001$ ,  $g = .65$ ), indicating a reduction in mood disturbance. Significant reductions ( $p < .01$ ) were reported on all of the POMS subscales. Likewise, there were statistically significant ( $p < .001$ ) and large increases on the MAAS ( $g = -.80$ ) and decreases in AAQ-II ( $g = -.70$ ) at post-treatment, suggesting an increase in mindful states in everyday life and acceptance. Mediation analysis showed that changes in mindfulness were significantly related to changes in acceptance, which in turn improved well-being (indirect effect = -6.57, 95% CI [-13.38, -1.57]).

Moderation analysis revealed that compared to participants with higher levels of baseline acceptance (AAQII < 28,  $n = 28$ ), participants with lower levels of baseline acceptance (AAQII  $\geq 28$ ,  $n = 24$ ) reported significantly lower baseline mindfulness (MAAS M = 3.32, SD = 0.78 vs. M = 3.89, SD = 0.65,  $p < 0.001$ ,  $g = -.78$ ) and higher baseline POMS TMD levels (POMS TMD M = 128.85, SD = 40.47 vs. M = 66.61, SD = 31.61,  $p < 0.001$ ,  $g = 1.69$ ). Participants with low baseline acceptance showed significant increases in acceptance (AAQ-II change M = -7.29, SD = 6.50 vs. M = -1.50, SD = 3.71,  $p < 0.001$ ,  $g = -1.08$ ) and decreases in POMS TMD (POMS TMD change M = -43.54, SD = 38.67 vs. M = -9.71, SD = 6.50,  $p = 0.001$ ,  $g = -.94$ ) at the end of the MBSR program. Moderated mediation models suggest that baseline acceptance level has an impact on the mindfulness-acceptance-well-being link.

This pilot study investigating the role of acceptance in MBSR found that mood symptoms were significantly reduced following MBSR training, and that acceptance contributed to the moderating and mediating effects of training on well-being. Future research may benefit from utilizing rigorous methods including randomized controlled trials with diverse populations.

### **Resetting the Circadian Rhythm: Rapid Treatment of Depression, Mania and Insomnia**

**Convenor: David Veale, King's College London and South London and Maudsley Trust, United Kingdom**

#### **Modifying the Impact of Eveningness Chronotype in Adolescence on Sleep, Circadian and Risk Outcomes**

**Alison Harvey, University of California, USA**

Key question: Can we reset evening-type chronotype in at-risk youth?

Background: Adolescence is a one of the most important developmental stages and a time of great vulnerability. There is evidence that the onset of puberty triggers a general preference for eveningness. Evening chronotype ('night-owls') adolescents follow a delayed sleep-wake schedule, increasing mental and/or physical activity later in the day, compared to morning chronotypes ('larks'). The evening preference has been identified as a contributing factor for poorer health across multiple domains (emotional, cognitive, behavioral, social, physical). A 'treatment experiment' will be described in which a psychosocial intervention (Transdiagnostic Sleep and Circadian Intervention; TranS-C-Youth) was administered to test the hypothesis that reducing eveningness will improve sleep and circadian functioning and reduce risk.

Methods: Youth aged 10 to 18 with an evening chronotype were randomized to: (a) TranS-C ( $n = 89$ ) or (b) Psychoeducation (PE;  $n = 87$ ). Treatments were 6 individual, weekly 50-minute sessions during the school year. Using multiple methods (global and prospective self-report, dim light melatonin onset, ecological momentary assessment) and multiple informers (adolescents, parents), outcomes were assessed by blind assessors pre-treatment and post-treatment.

Results: Relative to PE, TranS-C was associated with less evening circadian preference, earlier endogenous circadian phase (dim light melatonin onset; DLMO), less weeknight-weekend discrepancy in Total Sleep Time (TST) and wake-up time, less daytime sleepiness, and better self-reported sleep via youth and parent report. In terms of risk outcomes, relative to PE, TranS-C was not associated with greater pre-post change on the primary outcome. However, there was no group difference for total sleep time or bedtime on weeknights. There were significant interactions favoring TranS-C on the Parent-Reported Composite Risk Scores for cognitive health and selected other risk outcomes.

Conclusions: Relative to PE, TranS-C was associated with improvement on selected sleep, circadian and risk outcomes.

Unique Data. The existing evidence for treating sleep and circadian problems in adolescents is small but promising. Prior research has tended to be disorder-focused, in that the focus has been on one specific sleep problem (e.g., insomnia). Real-life sleep and circadian problems are not so neatly categorized. The Transdiagnostic Sleep and Circadian Intervention (TranS-C) addresses a broad range of common, and often overlapping, sleep and circadian problems experienced by youth, including eveningness. The 'treatment experiment' described in this talk extends previous research by documenting that a transdiagnostic approach to reducing eveningness (TranS-C) improves sleep outcomes, changes a biological marker of circadian functioning (DLMO) and reduces adolescent risk on selected outcomes.

#### **Triple Chronotherapy: A Randomised Controlled Trial for the Rapid Treatment of Depression**

**David Veale, King's College London and South London and Maudsley Trust, United Kingdom**

**Clara Humpston & Sarah Markham, King's College London, United Kingdom**

**Marc Serfaty, University College London, United Kingdom**

**Allan Young, King's College London, United Kingdom**

Total sleep deprivation as a rapid treatment for depression first began in the early 1970s in Tübingen, Germany. Controlled trials were conducted internationally that found that about 50% of unipolar or bipolar depressed in-patients recovered within a few days. There was however a very high rate of relapse and it was discontinued. Researchers from the late 1990's then started to find ways of stabilising the



response with triple chronotherapy. This consists of resetting the circadian rhythm by total sleep deprivation, followed by manipulating the phase of sleep and adding bright light therapy in the morning. We will report on the early results of a feasibility study in London for recruiting 62 unipolar depressed out-patients in a randomised controlled trial of triple chronotherapy v a control intervention. In our study, the sleep deprivation was supervised in a small group on the first night with an occupational therapist, followed by a phase advance of their sleep on day 2 to 5, and daily bright light therapy for 6 months. The control intervention was provided with psycho-education about sleep hygiene and an amber light to use in the morning. Blind observer ratings (Hamilton Depression Scale) and self-report measures of depression, quality of life and credibility of the intervention were used. The primary outcome is at 1 week. Follow up is at 2 weeks, 2 months and 6 months. If successful, the approach could have significant impact in health care provision with a relatively simple behavioural intervention.

### **Examining Predictors of Positive Response to Combined Chronotherapy Using Actigraphy and Daily Diaries on Mood**

**Stella Druiven, Jeanine Kamphuis, Benno Haarman, Ybe Meesters, Robert Schoevers & Harriëtte Riese, University of Groningen, the Netherlands**

**Introduction:** Combined chronotherapy includes sleep deprivation and morning light therapy and has been successfully used to treat severe depressive episodes. However, although it is a protocolled treatment it is not widely applied yet. This is partly because it is still largely unknown when chronotherapy should be indicated in the treatment of a depressive patient. Some predictors of response to chronotherapy have been identified, such as diurnal mood variability and higher levels of clinician-observed arousal. Finding additional predictors would improve the use of chronobiological interventions in treatment of depressive disorders. By using actigraphy, post-treatment changes in physical activity levels and variability have been documented for those who responded to chronotherapy. It is of great interest to measure activity-rest rhythms prior to chronotherapy as this may provide more answers. For example, it may be possible that individuals with high variability in their day-to-day activity rhythm may be particularly susceptible to chronobiological influences. Therefore, the aim of this study is to examine whether possible predictors of response can be identified by assessing activity-rest rhythm in addition to mood patterns of patients suffering from a depressive disorder.

**Method:** Fifty patients diagnosed with a depressive episode in the context of a major depressive disorder or a bipolar depressive disorder, as assessed with the Mini-International Neuropsychiatric Interview, will be included. The patients will be treated according to our chronotherapy protocol including three nights of total sleep deprivation, each followed by a recovery night, and daily morning light therapy for two weeks. The level of depressive symptoms will be assessed weekly using the Inventory of Depressive Symptoms – Self Report (IDS-SR). Additionally, mood variability is assessed with daily Ecological Momentary Assessment (EMA). Starting one week before the start of the chronotherapy, wrist actigraphy measurements will be recorded until the end of the therapy.

**Results:** From previous research done in the same hospital, 34.6% of the patients responded to the combined chronotherapy ( $\geq 50\%$  reduction in IDS score). From the patients that are included so far, 4 patients have finished the protocol. Some preliminary results will be shared during the conference.

### **Blocking Blue Light for Rapid Recovery from Manic Episode; Evidence and Practical Application**

**Tone Henrriksen, University of Bergen, Norway**

**Objectives:** Dark therapy is the latest evolution of chronotherapy methods. This complementary intervention to light therapy constitutes of imposing regular periods of darkness or virtual darkness. Virtual darkness is achieved by using blue-blocking (BB)-glasses. BB-glasses preserve endogenous melatonin and protect from sleep inhibiting activation caused by blue light. We examined the effectiveness and feasibility of BB glasses as add-on treatment for hospitalized bipolar patients in a manic state. Based on the present findings, low risk and low cost, the method is implemented as standard treatment in several Norwegian Health Authorities.

**Methods:** Patients with bipolar disorder in manic state aged 18-70 years were recruited from five clinics in Norway from Feb 2012 to Feb 2015, and randomly allocated to wearing BB glasses or placebo (clear glasses) as add-on treatment from 6 p.m. to 8 a.m. Manic symptoms were rated by use of Young Mania Rating Scale. Motor activity, sleep and wake, were monitored by use of a wrist-worn actigraph.

**Results:** 32 patients were enrolled from Feb 2012 to Feb 2015. Eight patients dropped out and one was excluded. Mean decline in the YMRS score for the 12 patients in the BB-group was 14.1 (95%CI: 9.7, 18.5), and 1.7 (95%CI: -4.0, 7.4) in the 11 patient placebo group, yielding an effect size of 1.86 (Cohen's d). The BB-group had significantly higher sleep efficiency, lower motor activity and less time awake after sleep onset as compared to the placebo-group. In the BB group, one patient reported headache and two patients experienced easily reversible depressive symptoms. The patients generally liked the intervention who corresponded well with many patient's own understanding of the illness.

**Conclusions:** Blue-blocking glasses were effective as ad-on treatment for mania. Sleep efficiency improved in the BB-group who also showed more consolidated sleep as compared to placebo. Our findings suggest anti-manic and sleep-promoting effects through deactivating mechanisms. Treatment with BB-glasses relies on good adherence to prescribed use. An alternative way of achieving BB-intervention is blue-depleted light patient-rooms making the method available for all manic patients regardless of state. Practical examples of different ways of administer blue-blocking interventions will be presented.

### **Latest Advances in Technology-Based Cognitive Behavior Therapy Research**

**Convenor: Hilary Weingarden, Massachusetts General Hospital and Harvard Medical School, USA**

**Chair: Hilary Weingarden, Massachusetts General Hospital and Harvard Medical School, USA**

**Discussant: Oliver Harrison, Telefónica Innovación Alpha, Spain**

### **Effects of a Neurofeedback Video Game to Prevent Childhood Anxiety: Two Randomized Controlled Trials**

**Isabela Granic & Elke Schoneveld, Radboud University, the Netherlands**

**Introduction.** Anxiety has devastating impacts on youth across the globe. Cognitive Behavioural Therapy (CBT) is one of the most effective intervention strategies; but conventional means by which CBT is delivered has limitations: the psychoeducational format is "boring"; children do not practice the strategies in emotionally salient contexts; costs are prohibitive and access is limited; and around 75% of youth who need help feel too stigmatized to seek services. Video games can address these problems: they are cost-effective, highly immersive, with no stigma attached, and they offer youth the chance to practice on their own, as often as they like, until skills are automatized. Two randomized control trials (RCTs) were conducted to test the effectiveness of a CBT-based neurofeedback video game designed to reduce anxiety. **Methods.** MindLight is a 3D neurofeedback game that translates evidence-based, but often dull, clinical techniques into game

mechanics that provide children with an immersive game world. The game integrates relaxation and exposure training, attention-bias modification and self-talk training. The two RCTs followed a similar method: over 750 elementary school children (7-13 years old) were screened for elevated anxiety. Selected children (RCT 1:  $n = 136$ ; RCT 2:  $n = 174$ ) were randomly assigned to play MindLight or to a comparison condition (RCT 1: commercial game, Max and the Magic Marker; RCT 2: Kendall's CBT program, Coping Cat; Flannery-Schroeder & Kendall, 1996). Self- and parent-reported anxiety were assessed at pre-, post-intervention, and 3-month follow-up. Results. Intention-to-treat (ITT) linear regression analyses with data from the first RCT showed, unexpectedly, that both groups improved in anxiety symptoms; improvements were maintained at 3-month follow-up. No significant effect of game condition were found (total anxiety child report:  $\beta = .06$ ,  $p = .14$ ; total anxiety mother report:  $\beta = -.06$ ,  $p = .36$ ). The within-groups effect size for change in total anxiety symptoms (child reports) from pretest (d<sub>av</sub>) was  $-.32$  at posttest and  $-.60$  at 3-month follow-up in the MindLight condition, and  $-.20$  at posttest and  $-.57$  at 3-month follow-up in the Max condition. The second RCT was registered as a non-inferiority RCT and showed even stronger effects for the Mindlight group and, as expected, the game was equally effective at post-treatment as Kendall's Coping Cat, one of the most consistently effective CBT interventions for anxiety. Improvements were maintained at three-month follow-up, when children had no access to the game or to therapists. Discussion. Results from these prevention trials suggest a novel, effective approach to preventing anxiety in youth, one that harnesses the motivating properties of games and their potential to teach new emotional patterns. Discussion will focus on "non-specific" therapeutic factors that emerged in RCT 1 and a roadmap to the next five years of programmatic studies in biofeedback games, with an emphasis on how our design and research methodology can help establish a validated toolbox of mechanics relevant to a wide range of intervention and developmental domains.

### **Development and Pilot Testing of a Cognitive Behavioral Therapy Digital Service for Body Dysmorphic Disorder**

**Sabine Wilhelm, Hilary Weingarden, Jennifer L. Greenberg, Thomas H. McCoy, Ilana Ladis & Berta J. Summers, Massachusetts General Hospital and Harvard Medical School, USA**

**Aleksandar Matic & Oliver Harrison, Telefónica Innovación Alpha, Spain**

We developed and pilot tested the first smartphone-delivered individual cognitive behavioral therapy (CBT) treatment for Body Dysmorphic Disorder. The digital service was developed via user-centered design, integrating input from engineering, design, and clinical psychologists, as well as BDD patient consultants. We then conducted a 12-week open pilot trial ( $N = 10$ ), to obtain initial results for feasibility, acceptability, and treatment outcome. Attrition rates (0%) and feedback on usability and satisfaction showed that smartphone-based CBT for BDD may be feasible, acceptable, and satisfactory. Results suggest that smartphone-based CBT for BDD may hold promise for improving BDD symptom severity, BDD-related insight, functional impairment, and quality of life, as scores from baseline to post-treatment improved with large to very large effects; depression improved with a medium effect. Ninety percent of participants were treatment responders at post-treatment and 3-month follow-up. Smartphone-based CBT for BDD may have potential as a standardized, low cost, and accessible treatment for this debilitating illness. A test of efficacy is needed as a next step, using a well-powered, randomized control trial design.

Keywords: body dysmorphic disorder; cognitive behavioral therapy; smartphone; app; digital health

### **The Next Generation of Virtual Reality Interventions for Mental Health**

**Philip Lindner, Stockholm University, Sweden**

Decades of research have shown that Virtual Reality (VR) technology can be used efficaciously to treat anxiety disorders, and for pain management, stress reduction, and other mental health purposes. Yet it is only with the recent advent of consumer VR platforms that widespread clinical implementation and scalable dissemination of self-help application have become possible. The time is thus ripe to move VR interventions out from university labs and into clinics and the hands of regular patients. This talk will present recent research on the efficacy, effectiveness and real-world usage of automated, gamified VR self-help applications, as well as three on-going effectiveness studies in regular healthcare: VR pain-distraction at a post-operative ward, VR relaxation at a psychiatric inpatient clinic, and VR exposure therapy for public speaking anxiety at a general mental health clinic. The unique and inherent clinical capabilities of VR technology will be discussed, as will lessons learned from implementation and dissemination efforts.

### **Effects of Web-Based Interpretation Bias Retraining (CBM-I) on Body Dysmorphic Symptoms - a Randomized-Controlled Trial**

**Fanny Dietel, Carina Zache, Paul-Christian Buerkner & Johanna Schulte, University of Muenster, Germany**

**Martin Möbius, Radboud University Nijmegen, the Netherlands**

**Sabine Wilhelm, Massachusetts General Hospital and Harvard Medical School, USA**

**Ulrike Buhlmann, University of Muenster, Germany**

Negative appearance-related interpretation bias is conceived to be a maintaining factor in body dysmorphic disorder (BDD) and a potential cause of inadequate treatment response during cognitive-behavioral therapy (CBT). Cognitive Bias Modification for Interpretation (CBM-I) has been designed to modify maladaptive interpretation patterns, and has been shown to reduce symptom severity and, for some studies, stress reactivity in anxiety and depression (Jones & Sharpe, 2017; Menne-Lothmann et al., 2014).

We examined CBM-I in an analogue BDD sample and predicted that appearance-related CBM-I, compared to control training and wait list, would result in more adaptive interpretations tendencies, reduced BDD symptom severity, improved self-esteem, appearance-related quality of life and reduced stress reactivity. In a double-blind, randomized-controlled trial (RCT), 234 highly body dissatisfied participants were randomized to multi-session web-based CBM-I (Word Sentence Association Paradigm, WSAP, with feedback) vs. control training (WSAP without feedback) vs. waitlist. Participants completed an interpretation bias assessment as well as BDD symptom severity, self-esteem and quality of life measures before and after the two-week training or waiting period. At post-intervention, we further investigated stress reactivity using an appearance-related web-based video stressor.

CBM-I training led to a large-sized differential increase in adaptive interpretation patterns for both appearance-related and social contexts. Further, CBM-I, compared to control and waitlist, differentially improved appearance-related quality of life and self-esteem. Both control and CBM-I training reduced BDD symptom severity. Stress reactivity at post-intervention was reduced with regard to some, albeit not all, state measures during the video stressor both in the CBM-I and control group.

Results suggest that CBM-I reduces maladaptive interpretation patterns and some aspects of stress reactivity, while boosting self-esteem and appearance-related quality of life above control training. The nature of control training-related placebo effects is potentially multifactorial. These results have implications for the development and use of multi-session appearance-related CBM-I as an augmentative strategy in CBT.

## **Symposia 15: Obsessive States**

### **Optimizing the Administration and Dissemination of Cognitive Behavior Therapy for Obsessive-Compulsive Disorder**

**Convenor:** Noah Berman, College of the Holy Cross, USA

**Chair:** Noah Berman, College of the Holy Cross, USA

**Discussant:** Reuven Dar, Tel Aviv University, Israel

#### **Enhancing Imaginal Exposure Administration for Patients with Taboo Obsessions: Role of Positive Effect**

**Noah Berman, College of the Holy Cross, USA**

**Sabine Wilhelm, Massachusetts General Hospital and Harvard Medical School, USA**

Despite the efficacy of exposure with response prevention for OCD, a substantial proportion of patients do not sufficiently respond (McKay et al., 2015). In particular, those with “taboo or unacceptable” thoughts often report less symptom reduction following treatment, compared to those with other OCD symptom dimensions (e.g., Williams et al., 2014). To address this gap in clinical care, it is critical that we identify novel strategies to enhance patients’ engagement and response to exposure exercises. Enhancing positive affect prior to treatment holds promise as a possible augmentation agent for CBT (Taylor et al., 2017), but no one has yet extended this work to those with OCD. Therefore, the current study investigated whether positive affect prior to an imaginal exposure to a taboo thought predicts: (1) exposure preparation (e.g., motivation to approach feared stimuli; perceived effectiveness of the intervention;), (2) exposure performance (e.g., engagement; subjective habituation), and (3) outcome (e.g., learning) variables. Additionally, given that depressive symptoms both limit one’s ability to experience positive affect and are experienced at especially high rates in individuals with taboo thoughts, we sought to determine whether the relationship between positive affect and exposure processes exists even after accounting for depressive symptoms. We recruited 30 individuals who met diagnostic criteria for OCD and reported clinically significant taboo or unacceptable thoughts. After administering a depression symptom severity measure, we developed an idiosyncratic imaginal exposure that targeted an obsession that the participant considered “moderately anxiety provoking.” Next, participants completed a measure of state positive affect and then listened to the audio-recorded imaginal exposure 10 times, providing distress ratings after each iteration. Results indicated that, after controlling for depression, positive affect prior to the exposure positively predicted participants’ degree of motivation to approach their obsessional stimuli, the perceived effectiveness of the intervention, and their degree of cognitive and emotional engagement. Notably, positive affect did not significantly predict the degree of subjective habituation or whether participants learned that their obsessions were not dangerous. Taken together, our findings provide a potential augmentation strategy for those with taboo thoughts participating in CBT. Results demonstrate that amplifying participants’ positive affect prior to an imaginal exposure may enhance their motivation, the perceived efficacy of exposure, and their ability to engage in the imaginal exposure itself. Importantly, these effects remained after accounting for, the often comorbid, depression symptoms. Study limitations and future directions will be discussed.

#### **Findings from a Pilot Trial of Cognitive Therapy for Compulsive Checking**

**Adam Radomsky, Martha Giraldo-O'Meara & Shiu Wong, Concordia University, Canada**

**Michel Dugas, Université du Québec en Outaouais, Canada**

**Gail Myhr, McGill University, Canada**

**S Rachman, University of British Columbia, Canada**

**Roz Shafran, University College London, United Kingdom**

**Maureen Whittal, University of British Columbia, Canada**

Compulsive checking is one of the most common symptoms of OCD. Although effective treatments exist, there are now new opportunities to tailor a cognitive therapy approach based on checking-specific cognitive theory and recent experimental evidence. We treated 12 individuals meeting the diagnostic criteria for OCD, and reporting compulsive checking as a primary symptom; the therapy was effective and acceptable, and results will be discussed in terms of the advantages and disadvantages of a cognitive approach to understanding and treating OCD symptomatology.

#### **Disseminating Cognitive-Behavioral Therapy for OCD: Comparing in Person vs. Online Training Modalities**

**Ryan Jacoby, Massachusetts General Hospital and Harvard Medical School, USA**

**Noah Berman, College of the Holy Cross, USA**

**Hannah Reese, Bowdoin College, USA**

**Jin Shin, Massachusetts General Hospital, USA**

**Susan Sprich, Massachusetts General Hospital and Harvard Medical School, USA**

**Jeff Szymanski, International OCD Foundation, USA**

**C. Alec Pollard, Saint Louis University, USA**

**Sabine Wilhelm, Massachusetts General Hospital and Harvard Medical School, USA**

Obsessive-compulsive disorder (OCD) is a severe and chronic condition that ranks in the top ten causes of health-related disability worldwide (World Health Organization, 2008). Cognitive behavioral therapy (CBT) is the most efficacious psychological treatment for OCD (Olatunji et al., 2013); yet, the majority of patients do not have access to this intervention (e.g., Hipol & Deacon, 2013). Dissemination efforts have aimed to broaden the workforce of clinicians trained in CBT for OCD via in-person and online courses; yet more research is needed comparing these two modalities. The present longitudinal study examined the effectiveness of two community trainings in CBT for OCD: (a) the in-person, intensive International OCD Foundation (IOCDF) Behavior Therapy Training Institute (BTIT), and (b) the online, low-intensity Massachusetts General Hospital Psychiatry Academy. Clinicians who completed the BTIT (n = 273) or Psychiatry Academy (n = 118) trainings from April 2016 – November 2018 (82% female, 90% Caucasian, M age = 43.64, 36% doctoral degree) completed assessments before, immediately after, and 6-months after their respective trainings. Using multi-level modeling, there was a significant effect of time for each of the outcomes, indicating: (a) increased self-reported comfort assessing and treating OCD (M = 61.13 to 83.65 out of 100, p < .001, ESg = 1.15) that was maintained at follow-up, (b) more positive beliefs about exposure therapy (M = 79.50 to 85.55 out of 100, p < .001, ESg = 0.48), (c) improved knowledge of the CBT model of OCD (M = 72.42 to 84.10 out of 100, p < .001, ESg = 0.54), and

(d) anticipated use of significantly more empirically supported principles (ESPs) following the workshops ( $M = 86.61$  to  $94.21$  out of  $100$ ,  $p < .001$ ,  $ESg = 0.74$ ); use of ESPs diminished by follow-up but remained slightly elevated relative to pre-training. There were also significant effects of training modality indicating that, on average (i.e., across all time points), individuals who opted for the intensive in-person BTTI scored higher on the knowledge quiz ( $p = .002$ ,  $d = 0.48$ ) and used significantly more ESPs ( $p < .001$ ,  $d = 0.60$ ). Time x training group interactions indicated that pre-post changes in clinician comfort assessing and treating OCD and beliefs about exposure were larger for Psychiatry Academy relative to BTTI attendees ( $ps < .007$ ; i.e., they began with lower comfort levels and more negative beliefs about exposure, and these differences diminished following the training). Results suggest that accessible, online trainings provide a cost-effective way to disseminate CBT principles to a wider net of community providers, but that more research is needed to determine the precise cost/benefit of adding training hours to optimize outcomes.

#### **CBT in OCD Under Routine Care Conditions: How Many and Who Will Benefit ?**

**Norbert Kathmann, Tanja Schuhmann, Björn Elsner, Kevin Hilbert & Benedikt Reuter, Humboldt University, Germany**

Randomized controlled trials (RCTs) and metaanalyses of RCTs have shown efficacy of cognitive-behavioral psychotherapy (CBT) in patients with obsessive-compulsive disorder (OCD). Generalizability of these results to routine care conditions is less known. We analyzed pre-post data of 410 OCD patients without strict selection criteria. CBT was individualized (i.e. not manualized), and number of sessions and total duration depended on clinical decision. 43% remitted, and additional 31% responded without remission. Pre-post effect size was  $d = 1.36$  for the Y-BOCS. Those who completed therapy and had more sessions showed better outcomes. In a subsample, we collected follow-up data after one year. We found that patients having attained remission were more stable than those having responded without remission. Further analyses aiming for outcome prediction at endpoint in the total sample identified few predictors. Most important ones were global OC symptom severity, and hoarding symptoms in the regression analyses. Interestingly, depression was not a negative predictor. Using machine learning algorithms, individual classification of patients as remitter or non-remitter was moderately good. Moreover, we looked at learning processes to better understand who benefits from CBT and why. In a fear acquisition and reversal task performed in the laboratory we observed worse cue acquisition in OCD patients but no reversal deficit. The role of these variables for outcome prediction is not yet fully analyzed. Both habituation within and between sessions and experience of expectancy violation during the first two exposure sessions was monitored in 85 patients were found to be predictive for symptom improvement after 20 and 40 sessions. Taken together, we have strong evidence that CBT for OCD works under routine care conditions, and reliably improves symptoms levels in about 75% of patients. To ensure stable remission, full remission at end of therapy should be the target. Prediction from biographical and other clinical measures is weak but might be improved by the use of machine learning. Identification of relevant learning mechanisms and their deficits in OCD patients is suggested to provide important information to better predict clinical course and therapy response. If successful, this can be the basis for better allocation of treatments and individualized augmentations.

#### **Intergenerational Factors in Parent and Child Obsessive-Compulsive Disorder**

**Convenor: Fiona Challacombe, King's College London, United Kingdom**

**Chair: Fiona Challacombe, King's College London, United Kingdom**

#### **My Child's Thoughts Frighten Me: Maladaptive Effects Associated with Parents' Interpretation and Management of Children's Intrusive Thoughts**

**Noah Berman, College of the Holy Cross, USA**

**Sabine Wilhelm, Massachusetts General Hospital and Harvard Medical School, USA**

Environmental factors explain substantial variance in youth's obsessive-compulsive symptoms (OCS) and much of this research has focused upon overt parenting behaviors (e.g., accommodation). No work, however, has examined how parents' internal processes (e.g., perception of children's intrusions) influence youth's OCS. Based upon the cognitive theory of obsessions, we propose that parents' misappraisal of children's intrusions as threatening will be positively associated with (a) the number of maladaptive intrusion management strategies recommended by the parent, as well as (b) children's obsessive beliefs, (c) interpretation biases, and (d) OCS severity. Twenty-seven children ( $M = 12.81$ ;  $SD = 3.43$ ) and the parent most involved in childcare completed diagnostic interviews and self-report questionnaires. In the laboratory, we induced obsessional anxiety in youth through a standardized in vivo paradigm (e.g., think about a personalized harm-related negative event occurring). Parents rated how they interpreted their children's unwanted thought and the intrusion management strategies they would recommend. Results indicated that parents who interpreted their children's intrusions as threatening recommended more maladaptive intrusion management strategies and their misappraisal positively and significantly correlated with the severity of children's obsessive beliefs, interpretation biases, and OCS, even after controlling for co-occurring internalizing symptoms. Although our study possesses many strengths, it is limited by the small sample and cross-sectional design. Taken together, parents' misinterpretation of children's intrusions may operate as a mechanism by which OCS are generationally transmitted. Results can inform OC prevention programs that target parents' cognitive biases in their own psychotherapy.

#### **Parental Rearing Associated with Pediatric OCD: Associations with Age, OCD Symptomatology and Inflated Responsibility Beliefs**

**Sharna Mathieu, Lara Farrell, Elizabeth Conlon, Allison Waters & Melanie Zimmer-Gembeck, Griffith University, Australia**

**Jennifer Hudson, Macquarie University, Australia**

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Obsessive Compulsive Disorder (OCD) in youth is a severe mental health condition that profoundly impacts on the child and the entire family. Indeed, families often become distressed, over-involved in symptoms, and parents can become harsh and controlling in their parental rearing styles. Findings from a limited number of observational studies conducted with pediatric OCD samples confirm the presence of rejecting and controlling behaviors among families (Barrett et al., 2002; Farrell et al., 2013; Mathieu et al., 2015; Przeworski et al., 2012). This is important as these parental behaviors have also been associated with a poorer response to treatment (Lavell et al., 2016; Przeworski et al., 2012), and are theoretically implicated in the development of belief biases associated with the maintenance of OCD (e.g., inflated responsibility; Salkovskis et al. 1999). However, to date, observational studies in pediatric OCD have been limited by small sample sizes, and inattention to potential moderating variables such as age. Therefore this study aimed to examine observed parental rearing in a large sample of children and adolescents with OCD and their mothers, relative to healthy controls, exploring the effects of age. This study also aimed to explore what factors may predict negative parental rearing among OCD families, and explored whether observed parental rearing

characterized as being high on control and rejection, was associated with significantly higher child-reported obsessional responsibility/threat beliefs. It was hypothesized that mothers of children with OCD would be more withdrawn, aversive, overinvolved, and less autonomy granting, confident in their child, and warm, than mothers of non-clinical children during a discussion task. It was also hypothesized that child's OCD severity and impairment, parent psychological distress, family accommodation, and child externalizing symptoms would be associated with more negative parental rearing. Finally, there would be a significant and positive association between harsh and controlling parental rearing and child dysfunctional obsessive responsibility beliefs. Mother-child dyads discussed a mildly threatening ambiguous situation for 5-minutes, with the goal being to come up with a solution. Discussions were coded by a blind-rater using a macro-coding schedule. The sample comprised  $n = 180$  mother-child dyads. Children were either non-clinical ( $n = 66$ ; aged 7 – 17 years) or had OCD ( $n = 114$ ; aged 7 – 17 years), with there being no significant differences between groups in terms of child age or gender. In order to achieve the study aims, group differences will be tested by a series of 2 (OCD; Non-Clinical) x 2 (7- 11 years; 12 – 17 years) between groups factorial ANOVAs. Within the OCD sample, bivariate correlations between OCD severity and impairment, parental psychological distress, child reported obsessive beliefs, family accommodation, and child externalizing symptoms with observed parental rearing will be explored. Multiple regressions will be used to determine which factors account for unique variance in observed parental rearing behaviors. Findings will be discussed in relation to the developmental-familial context of pediatric OCD, and current cognitive models which highlight developmental pathways to the emergence of responsibility and threat beliefs associated with OCD.

### **Perceptions of the Mother-Infant Relationship in Postpartum OCD**

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**Matthew Woolgar, South London and Maudsley NHS Trust, United Kingdom**

**Paul Salkovskis, University of Oxford, United Kingdom**

**Esther Wilkinson, Julie Read & Rachel Acheson, King's College London, United Kingdom**

**Objectives:** Mothers with OCD often have debilitating psychological symptoms but little is known about the impact on parenting. This study aimed to investigate the perceptions and experience of mothers with OCD in terms of child temperament, perceptions of parenting and interactions with their child.

**Methods:**

A group of 37 mothers with postnatally occurring OCD were recruited and assessed when their babies were six months old using a range of self-report, interview and ratings of mother-infant interactions in feeding, playing and nappy change. A group of 37 healthy control mothers were also assessed using the same methodology in order to clearly delineate the effect on parenting of obsessive-compulsive symptomatology.

**Results:**

Mothers with OCD reported a high perceived level of general interference in parenting at 6m and lower parenting self-efficacy than healthy controls. Mothers in the OCD group showed more high EE (particularly emotional overinvolvement) at 6m (Fisher's exact  $p=0.019$ ) and expressed anxiety about their children. In observed interactions mothers were less sensitive ( $d=0.81$ ) and used less infant directed speech than controls particularly during nappy changes ( $t [48.18] = 3.58, p<0.001$ ). Mothers reported enjoying everyday interactions less than controls. The perceived interference of their disorder in parenting was related to lower sensitivity ( $r=-0.46, p<0.01$ ).

**Conclusions:** Few studies have investigated specific perceptions of mothers with anxiety about parenting and interacting with their infant. Mothers with OCD enjoy everyday tasks less than comparison mothers and are concerned about the impact of their disorder on parenting. Mothers may show early overinvolvement that could be a mechanism of environmental transmission of anxiety. Interventions should address these concerns sensitively.

**Keywords:** maternal anxiety disorders; parenting

### **Relationship Obsessive Compulsive Disorder (ROCD) Symptoms Within the Parent-Child Dyad: The Role of Child Value Self Contingencies and Cognitive Load**

**Guy Doron, Baruch Ivcher School of Psychology, Israel**

**Dana Gadot & Saar Gal, Interdisciplinary Center (IDC) Herzliya, Israel**

Relationship obsessive compulsive disorder (ROCD) is an impairing presentation of obsessive compulsive disorder (OCD) focusing on close interpersonal relationships such as romantic and parent child relationships. Within the parent-child dyad, ROCD symptoms often manifest as parental preoccupations with their children's flaws (parent-child ROCD symptoms). Such symptoms have been previously linked with child-value self-contingencies (i.e., self-worth over dependent on the child's perceived value). In this study, 106 parents were primed with parent-child ROCD related intrusive thoughts with or without high cognitive load. Findings suggest that child-value self-contingencies predicted an increase in parent-child ROCD symptoms, particularly for parents under cognitive load. Clinical and theoretical implications of these findings will be discussed

### **The Role of Paternal Accommodation of Paediatric OCD Symptoms: Patterns and Implications for Treatment Outcomes**

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**Pablo Vidal-Ribas, National Institutes of Health Bethesda, USA**

**Cynthia Turner, Australian Catholic University, Australia**

**Georgina Krebs & Caroline Stokes, King's College London, United Kingdom**

**Isobel Heyman, Great Ormond Street Hospital for Children, United Kingdom**

**David Mataix-Cols, Karolinska Institutet, Sweden**

**Argyris Stringaris, National Institutes of Health Bethesda, USA**

**Objectives:** Family accommodation (FA) refers to the participation of family members in an individual's OCD rituals. Because FA studies have predominantly focused on maternal accommodation very little is known about fathers' accommodation of OCD or how this relates to treatment outcomes. Given the emergent research highlighting fathers' critical role to their child wellbeing, evaluating and understanding the role of father in OCD outcomes can have important clinical implication for intervention and systemic approaches.

**Methods:** Mothers and fathers of children with OCD ( $N=209$ ) both completed the Family Accommodation Scale- Parent Report (FAS-PR). Wilcoxon sign rank test and chi-square analyses were used to compare the extent of FA of OCD symptoms between mothers and fathers. Predictors of maternal and paternal FA and the impact of maternal vs paternal FA on treatment outcomes were examined via regression models, the latter adjusted for pre-treatment OCD severity.

Results: Mothers had significantly higher levels of daily FA than fathers; however, both reported a similar pattern of accommodation and FA scores were highly correlated ( $r = .74$ ) of FA. Correlates of maternal and paternal accommodation included child's OCD symptom severity, emotional and behavioral difficulties, and parent psychopathology. Examined separately, both maternal and paternal FA significantly predicted worse post-treatment outcomes (in terms of OCD severity and response status); yet, when the regression model included both parents simultaneously, only paternal FA predicted treatment response status.

Conclusions: Both mothers and fathers accommodate child OCD symptoms with high frequency, and in very similar ways. Although mothers accommodate to a greater extent than fathers, paternal involvement in rituals is a significant predictor of the child's treatment response. Results emphasise the need to consider the whole family system, including fathers, in understanding and treating childhood OCD.

### **Obsessive-Compulsive Disorder: Cognitive Processes and Mechanisms of Change During Behavioral and Metacognitive Therapies**

**Convenor: Andrea Ertle, Humboldt-Universität zu Berlin, Germany**

**Chair: Benedikt Reuter, Humboldt-Universität zu Berlin, Germany**

**Discussant: Benedikt Reuter, Humboldt-Universität zu Berlin, Germany**

### **Does Adherence to Exposure and Response Prevention Related Homework Predict Short and Long Term Therapy Outcome from Manualized Cognitive Behavioral Therapy for OCD?**

**Tanja Jacobi, Björn Elsner, Eva Kischkel & Norbert Kathmann, Humboldt-Universität zu Berlin, Germany**

Cognitive Behavioral therapy with exposure and response prevention (ERP) is the first line approach for treating patients with OCD, supported by evidence from RCTs and meta-analyses showing high-effect sizes. Nevertheless, research addressing potential predictors is inconclusive. Recent studies suggest patient adherence has a significant effect on lower post-treatment severity. Therefore this study prospectively examined if patient adherence to exposure and response related homework predicts treatment outcome.

Method: All treatments took place between January 2017 and December 2018 in a specialized academic outpatient clinic in Germany. The main outcome measures were the Yale-Brown Obsessive Compulsive Scale total score and response/remission rates (35% reduction and/or RCI following Jacobson & Truax) as well as the first two items of the Homework Rating Scale (HRS). Patients and Therapists had to complete the Homework Rating Scale after each session a homework assignment has been made.

Results: In logistic regressions, neither the mean quantity nor the quality significantly predicted response or remission at session 20. It remains to be seen if results remain to be constant after applying multilevel modeling.

Discussion: This study used a multidimensional approach while relying on both patient and therapist ratings. Results indicate that the meaning of patient adherence as a predictor for treatment outcome might have been overestimated in previous studies.

### **Exposure-Based CBT for OCD: Effects of Habituation and Expectancy Violation**

**Björn Elsner, Tanja Jacobi, Eva Kischkel, Norbert Kathmann & Benedikt Reuter, Humboldt-Universität zu Berlin, Germany**

Exposure with response prevention is an essential component in cognitive-behavioral therapy (CBT) for obsessive-compulsive disorders (OCD) and its utility for symptom reduction has been shown in many studies. However, little is known about mechanisms underlying exposure. Two theories have recently been discussed in treatment process research: While the emotional processing theory assumes that treatment effects of exposure therapy are associated with fear activation and habituation within and between exposure sessions, the inhibitory learning approach emphasizes different mechanisms like expectancy violation. In a university outpatient unit,  $N = 85$  patients with OCD received manualized CBT with high standardization of exposure sessions. Specifically, the first exposure session was repeated identically within a few days and subjective units of distress in the course of exposure as well as expectancy ratings were assessed. In a regression model both, parameters of habituation and of expectancy violation were associated with symptom reduction on the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) after 20 and 40 therapy sessions. The results suggest that mechanisms of exposure from both theories contribute to treatment benefits in OCD.

### **The Changeability of Metacognitions by (Metacognitive) Treatment and its Relevance for Treatment Outcome of Harming Obsessions**

**Jana Hansmeier, Universität Leipzig, Germany**

**Anke Haberkamp, University of Marburg, Germany**

**Cornelia Exner, University of Leipzig, Germany**

**Julia Glombiewski, University of Landau, Germany**

Obsessions and intrusions to harm self or others can be very impairing symptoms in daily life of patients with obsessive-compulsive disorder (OCD). The metacognitive approach according to Wells views metacognitions like fusion beliefs, beliefs about rituals and stop signals as relevant for OCD symptoms like harming obsessions being supported by empirical evidence. However, the changeability of these OCD specific metacognitions especially by metacognitive treatments and its relation to harming obsessions after treatment remain unclear. The present study investigates (1) if treatments with expositions and ritual prevention ( $n = 11$  OCD patients) or metacognitive therapy ( $n = 12$  OCD patients) of a randomized controlled trial might be beneficial in reducing metacognitions and (2) if changes are relevant for harming obsessions (as measured by the Padua subscale). Repeated measures ANOVAs with pre- to posttreatment scores of the metacognitions and the between-subjects variable of treatment condition could show that all metacognitions significantly decreased by treatment (all  $ps < .05$ ). With regard to beliefs about rituals, the metacognitive therapy could achieve bigger changes than exposition treatment, as indicated by a significant interaction effect ( $p < .001$ ). For analyzing the second research question, hierarchical regression analyses of either posttreatment, follow-up after 6 months (FUP 1) or a second follow-up (FUP 2) of harming obsessions were conducted with the respective metacognitions and controlling for pretreatment harming obsession scores. These analyses could demonstrate that only changes of stop signals are a significant predictor to FUP 1 ( $p = .022$ ) and FUP 2 ( $p = .034$ ) scores and change of beliefs about signals are a significant predictor to FUP 2 scores ( $p = .012$ ). No other significant predictions by metacognitions could be found. The present findings support the hypothesis of a changeability of metacognitions by treatment with a partial superiority of metacognitive therapy. These changes seem to be relevant for longterm treatment outcome of harming obsessions.

## **Development and Preliminary Psychometric Properties of the Obsessive-Compulsive- Rumination Inventory**

**Karina Wahl, University of Basel, Switzerland**

**Andrea Ertle, Humboldt-Universität zu Berlin, Germany**

**Roselind Lieb, University of Basel, Switzerland**

At present, it is unclear whether different types of rumination can be distinguished in OCD. Previous studies indicate that rumination about the symptoms of obsessive-compulsive disorder (OCD) is conceptually different from symptom-immanent rumination, such as mental neutralizing. The present study describes the development of a self-report inventory that assesses different components of symptom-immanent rumination, and rumination about OCD in a sample of  $n = 160$  individuals diagnosed with OCD. Acceptance of obsessive thoughts was added as an additional subscale in order to increase its clinical utility as a continuous assessment of mental forms of neutralizing and rumination about the symptoms of OCD. Exploratory factor analysis demonstrated that symptom-immanent rumination items loaded on three correlated factors (1) internal arguing, (2) rituals and reconstruction, and (3) attempts to stop the thought, each of which had different associations with measures of OC symptoms and trait rumination (brooding). While the first subscales «internal arguing» was moderately associated with brooding, but not with overall OC symptoms, the second subscale «rituals and reconstruction» had stronger associations with OC symptoms than with brooding. The third subscale «attempts to stop thought» had weak associations with OC symptoms and brooding. As expected, rumination about OC symptoms had stronger associations with brooding than with OC symptoms. The scale «acceptance» was neither associated with OC symptoms nor with brooding. Symptom-immanent rumination and rumination about OC symptoms were moderately correlated, the remaining subscale inter-correlations were low. The internal consistencies of the scales ranged from acceptable to high. Individuals with OC scored higher on all scales than a comparison group of individuals with major depressive disorder as the primary diagnosis ( $n = 105$ ). To conclude, the study provides preliminary evidence that the Obsessive-Compulsive-Rumination Inventory differentially assesses three different forms of symptom-immanent rumination and rumination about OC symptoms in a reliable way. These findings need to be replicated in an independent sample and the use of its applicability as a continuous assessment measure during CBT needs to be investigated in future studies.

## **Metacognitive Group Training for Patients with Obsessive-Compulsive Disorder**

**Franziska Miegel, Universitätsklinikum Hamburg-Eppendorf, Germany**

More than 50% of patients with obsessive-compulsive disorder (OCD) do not receive first-line psychological treatment such as cognitive-behavioral therapy with exposure and response prevention. To narrow this treatment gap, there is an urgent need for treatments that are easy to disseminate and highly accepted by patients. For this purpose, we developed the Metacognitive Training for Obsessive Compulsive Disorders (MCT-OCD) based on established disorder-specific metacognitive group trainings and the self-help manual for OCD ("myMCT"), which has already been positively evaluated. Four modules focus on the modification of OCD-specific cognitive biases (e.g., perfectionism and reduced uncertainty tolerance). The aim of the pilot study was to provide initial evidence on the acceptance, effectiveness, and mechanisms of the MCT-OCD (pilot version) and to use the results to improve the training and develop a final version of the training. Fifty inpatients with OCD participated in the MCT-OCD for 4 weeks. Before and after participation in the MCT-OCD, as well as 6 months later, OC symptoms were assessed using the Y-BOCS and the OCI-R. Cognitive biases were assessed using the OBQ-44. In addition, potential mechanisms of change (e.g., control of thoughts) were recorded before and after each training session. Results showed a reduction of OC symptoms with large effect sizes from baseline to post (Y-BOCS:  $d = 1.48$ ; OCI-R:  $d = 0.77$ ) and follow-up assessment ( $d = 1.67$ ;  $d = 1.17$ ). Furthermore, acceptance of the MCT-OCD was high and correlated with the decrease in the Y-BOCS ( $r_s = .33 - .46$ ). In line with our hypothesis, mixed linear models revealed a reduction of the control of thoughts after the respective module. The results provide initial evidence for the acceptance, effectiveness and mechanisms of the MCT-OCD. These are limited by the lack of a control group, the add-on design as well as possible "allegiance" effects. The data was used for the revision of the MCT-OCD, which is currently evaluated in a randomized controlled trial.

## **Relationship Obsessive-Compulsive Disorder: Vulnerabilities, Treatment, and Related Phenomena**

**Convenor: Gabriele Melli, Institute for Behavioral and Cognitive Psychology and Psychotherapy, Italy**

**Chair: Gabriele Melli, Institute for Behavioral and Cognitive Psychology and Psychotherapy, Italy**

## **Reducing Relationship Obsessive-Compulsive Disorder Symptoms and Related Psychological Features: Preliminary Evidence from a Brief Mobile-App Intervention**

**Silvia Cerea & Gioia Bottesi, University of Padova, Italy**

**Guy Doron, Baruch Ivcher School of Psychology and Interdisciplinary Center Herzliya, Israel**

**Denise Broggio & Marta Ghisi, University of Padua, Italy**

Introduction: Relationship Obsessive-Compulsive Disorder (ROCD) is characterized by obsessive and compulsive symptoms pertaining intimate relationships (Doron et al., 2014). ROCD have been associated with dyadic distress, depression, and anxiety (Doron et al., 2012; Doron et al., 2014). A recent study (Roncero et al., 2019) found a reduction in ROCD symptoms after 15 consecutive days of training with a mobile-app intervention called GGRO. GGRO was developed by Doron to challenge maladaptive beliefs that underlie ROCD following Cognitive Behavioral Therapy principles. Based on previous evidence, the aim of the current study was to evaluate the efficacy of GGRO in reducing ROCD symptoms and its associated psychological features in the Italian context.

Method: Thirty-three participants (72.73% females) who scored above the cut-off on self-report questionnaires assessing ROCD beliefs and symptoms were randomized to groups undertaking immediate-use (iApp,  $n = 17$ ) or delayed use (dApp,  $n = 16$ ) of GGRO. All participants completed online self-report questionnaires assessing ROCD (Relationships Obsessive Compulsive Inventory, ROCI; Partner-Related Obsessive Compulsive Symptoms Inventory, PROCSI) and OCD (Obsessive Compulsive Inventory-Revised, OCI-R) symptoms, and related psychological features such as self-esteem (Rosenberg Self-Esteem Scale, RSES), social anxiety (Social Interaction Anxiety Scale, SIAS), general distress (Depression Anxiety Stress Scale-21, DASS-21), and intolerance of uncertainty (Intolerance of Uncertainty Scale-12, IUS-12). Questionnaires were completed at baseline (T0), 15 days from baseline (T1), and 30 days from baseline (T2). Participants in the iApp group started to use the app at baseline and continued for 15 days. Participants in the dApp group were requested to wait for 15 days before starting to use the app for 15 consecutive days (T1 to T2).

Results: Concerning the iApp group, 1x3 (Time; T0 vs. T1 vs. T2) Repeated Measure ANOVAs were performed and a significant reduction from T0 to T1 and from T0 to T2 (but not from T1 to T2) emerged in the ROCI ( $p < .001$ ), PROCSI ( $p < .001$ ), OCI-R ( $p = .03$ ), and IUS-12 ( $p < .001$ ); the same pattern emerged with an increasing of the RSES ( $p < .001$ ). Regarding the SIAS and the DASS-21, a significant reduction

only from T0 to T1 (respectively,  $p = .02$  and  $p = .03$ ) was observed. Moreover, a series of 2 (Group)  $\times$  2 (Time; T0 vs. T1) Repeated Measure ANOVAs were conducted to compare the iApp and the dApp groups across time. Analyses revealed significant Group  $\times$  Time interactions in RSES ( $p = .01$ ), SIAS ( $p = .01$ ), ROCI ( $p = .01$ ), PROCSI ( $p < .001$ ), and IUS-12 ( $p = .03$ ); specifically, the iApp group showed decreased scores (increased with respect to RSES) than the dApp group at T1.

**Discussion and Conclusion:** Present results show that 15 consecutive days of GGRO may lead to significant reduction in ROCD symptoms and in its associated psychological features. To note, most of those reductions were maintained after 2 weeks (follow-up). These findings, in accordance with previous studies (Roncero et al., 2018; Roncero et al., 2019), provide further evidence for the efficacy of GGRO in reducing ROCD beliefs and symptoms and its associated psychological features also in an Italian non-clinical sample.

### **My Partner is Unreliable: Exploring Obsessive Distrust as an Additional Dimension of Partner-Focused ROCD Symptoms**

**Guy Doron, Baruch Ivcher School of Psychology, Israel**

**Or Brandes & Avital Stern, Interdisciplinary Center (IDC) Herzliya, Israel**

Relationship Obsessive-compulsive disorder (ROCD) is a dimension of Obsessive-compulsive disorder (OCD) focusing on close and intimate relationships. ROCD may focus on the relationship itself (i.e., relationship-centered) or the perceived flaws of the relationship partner (i.e., partner-focused). Obsessive preoccupations with the perceived flaws of the relationship partner has been shown to center on domains such as intelligence, appearance, sociality, emotional regulation, competence and morality. Clinical experience suggests, however, that obsessive doubts and preoccupation with the perceived untrustworthiness or unreliability of the partner (i.e., obsessive distrust) may be an additional domain of partner-focused ROCD symptoms. The present investigation reports on the development and evaluation of the Obsessive Distrust Inventory (ODIS), an 11-item measure assessing the severity of obsessive distrust phenomena. Factor analysis supported a one internally consistent factor. The ODIS also showed the expected associations with OCD symptoms, ROCD symptoms and other mental health and relationship measures. Moreover, the ODIS significantly predicted depression, anxiety and relationship violence, over-and-above common mental health and relationship measures. Theoretical and clinical implications of these results will be discussed.

### **Pathological Narcissism and Relationship Obsessive Compulsive Disorder (ROCD) Symptoms**

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**Guy Doron, Baruch Ivcher School of Psychology, Interdisciplinary Center (IDC) Herzliya, Israel**

**Introduction:** One impairing symptom dimension of obsessive-compulsive disorder (OCD) that has been receiving increasing research and clinical interest is Relationship OCD (ROCD). This OCD dimension includes two main presentations. Relationship-centered ROCD symptoms focusing on the suitability of the relationship itself and partner-focused ROCD symptoms centering on the relational partner perceived suitability. Partner-focused ROCD symptoms include obsessive doubts and concerns about perceived partners' flaws in a wide variety of domains, such as morality, sociability, appearance. Clinical experience suggests that clients presenting with partner-focused ROCD symptoms may also show increased levels of narcissistic traits. For instance, like increased narcissistic traits, partner-focused ROCD symptoms have been associated with over-reliance on partner's perceived value for one's self-esteem, increased attentiveness to alternative romantic partners, and infidelity. This study aimed to explore the association between partner-focused ROCD symptoms and pathological narcissism, particularly the vulnerable narcissism. More specifically, we evaluated a model whereby narcissistic traits increase vulnerability to partner-focused ROCD symptoms via partner value contingent self-worth.

**Methods:** 310 participants with a self-referred diagnosis of ROCD were recruited online. They were administered the Pathological Narcissism Inventory (PNI) the Partner-Related Obsessive-Compulsive Symptoms Inventory (PROCSI), the Partner Value Contingent Self-Worth (PVCSW), the Relationship Catastrophization Scale (RECATS), and the maladaptive relationship belief and the Obsessive Beliefs Questionnaire-20 (OBQ-20).

**Results:** As expected, the correlation between vulnerable narcissism and partner-focused ROCD symptoms was large (.51). Vulnerable narcissism was a significant predictor of partner-focused ROCD symptoms, together with maladaptive beliefs about the catastrophic consequences of remaining in a wrong relationship and partner value contingent self-worth. The latter was a partial mediator in the relationship between vulnerable narcissism and partner-focused ROCD symptoms.

**Conclusion:** As expected, vulnerable narcissism seems to have an important role in the development of partner-focused ROCD symptoms via partner value contingent self-worth.

### **Differential Cognitive Predictors of Relationship, Sexual-Orientation and General Obsessive Compulsive Symptoms**

**Richard Moulding, Deakin University, Australia**

**Background and Objectives:** Two previously understudied symptom themes of Obsessive Compulsive Disorder (OCD) have recently received greater consideration in the literature: Relationship-related OCD (ROCD) and Sexual-Orientation OCD (SO-OCD). Cognitive appraisal models of OCD suggest that symptoms are maintained by maladaptive beliefs that drive unhelpful interpretations of normal intrusive thoughts. The present study aimed to examine the contribution of general, specific, and self-related beliefs to obsessive-compulsive (OC) symptoms of both ROCD and SO-OCD.

**Method:** The sample comprised 264 non-clinical participants (135 males) with a mean age of 34.65 years ( $SD = 12.01$ ). Participants completed an online questionnaire, which comprised a battery of self-report items.

**Results:** Using Structural Equation Modeling (SEM), the study found that different cognitions related to different OCD symptoms dimensions. It was found that general maladaptive beliefs were predictive of most forms of general OCD symptoms. Specific sexual-orientation beliefs were predictive of SO-OCD, over-and-above the more general beliefs noted in the cognitive appraisal model of OCD, but specific relationship-related beliefs did not strongly predict ROCD symptoms. Self-themes, particularly the "feared self", were found to contribute significantly to OC symptoms in ROCD and SO-OCD, as well as to general OCD (particularly symptoms involving repugnant thoughts).

**Conclusions:** Self-themes and their contribution to specific OCD symptoms suggest that beliefs centred on feared self-perceptions and inner-self concerns may also be important in understanding symptom presentations. These findings, if replicated in clinical samples, may provide a basis for the development of specific cognitive-behavioural interventions that target such beliefs relevant to OCD, and potentially other related disorders.



## **Perceptual Distortions in Body Image Disorders**

**Convenor: Fugen Neziroglu, Bio Behavioral Institute, USA**

### **Assessment of Misperceptions in Body Dysmorphic Disorder**

**Fugen Neziroglu, Bio Behavioral Institute, USA**

**Deniz Sidali, Hofstra University, USA**

Body dysmorphic disorder (BDD) can be characterized as a preoccupation with a perceived flaw of oneself. One of the most outstanding features of BDD is the misperception of their appearance, which has been studied via fMRI studies, eye tracking, and computerized programs, albeit the literature is still in its infancy with very few subjects in each of the studies. In the first study investigation perception in BDD and OCD, Yaryura-Tobias and colleagues (2002), used a computerized program to look at this misperception by testing the ability to detect when a visual change has occurred in pictures and comparing individuals with obsessive compulsive disorder (OCD), BDD, and non-clinical controls. Participants were subjected to their pictures and asked to report whether or not it was distorted. Despite the fact that no images were actually manipulated, BDD and OCD individuals perceived distortions of their own faces where controls did not. After the first portion of this study, participants were then able to edit their pictures if they desired. Individuals with BDD and OCD edited their pictures 50% of the time (Yaryura-Tobias et al., 2002). Neziroglu and colleagues expanded on the previous study. Individuals with OCD (N=16), BDD (N=15), and non-clinical controls (N=20) participated in the study in order to determine if the three groups differed in their ability to detect noticeable differences. A photograph of each individual's face and the disliked body part were taken and uploaded into the computer. On one side of the computer screen was the actual photograph and the on the other side was a picture that was manipulated by the computer's software. The software changed the pictures at various degrees of hue and size. In addition, participants compared a series of photographs including a neutral object and a neutral face and had to distinguish between the original picture and the manipulated version. There were 15 trials per picture (60 trials total), during which both accuracy and reaction time were recorded. The results of this study indicated that OCD and BDD individuals were significantly different from controls in that they perceived the change in their pictures slower. This supports the aforementioned findings from Yaryura-Tobias et al. (2002) demonstrating that individuals with OCD and BDD perceive changes in their own picture differently than do controls. It is concluded that OCD and BDD individuals are similar in terms of their ability to detect changes in appearance although it is unclear why and there is need for further investigation. Understanding the etiology of perceptual distortions in BDD is crucial for the development of effective methods to treat them.

### **Characterizing Visual Processing Bias in Body Image Concern**

**Matthew Mundy, Monash University, Australia**

Abnormalities in visual processing have been described in body image disorders. However, it is not currently understood how, or if, this faulty processing directly contributes to the initial appearance of the disorder. Here we will describe a series of studies examining and characterizing perceptual distortions in an otherwise healthy population, with varying levels of body image concern (BIC). Using the face inversion effect, we will show that maladaptive visual processing biases exist on a continuum that correlates with BIC – whereby discrimination performance to inverted faces appears to improve as BIC also increases, thus indicating a reliance upon localized visual processing. Finally, we will examine how behavioral manipulations can alter this visual bias in a laboratory setting.

### **Perceptual Distortions in Body Dysmorphic Disorder and Relationships to Underlying Aberrant Neural Systems**

**Jamie Feusner, Teena Moody, University of California, USA**

**Francesca Morfini, Harvard University, USA**

**Gigi Cheng, Courtney Sheen, Wesley Kerr & Michael Strober, University of California, USA**

Individuals with body dysmorphic disorder (BDD) experience distorted perception of their appearance, which may relate to abnormalities in visual processing. Previous neuropsychological and psychophysical research in BDD has revealed evidence of deficiencies in global perception and feature integration accompanied by over-attention to details. As their appearance distortions are often delusional in nature, this suggests a role for aberrant neural systems underpinning disturbed visual information processing. We will present findings from several functional neuroimaging studies using appearance-related (own-face and other-face), and non-appearance-related (house) stimuli, all of which point to abnormal brain activity in primary and secondary visual processing systems, particularly for configural and holistic visual information. These data argue that BDD may be driven by under-utilization of brain systems dedicated to processing of low-levels of detail (global processing). The phenotype may, in turn, explain increased attention given to minuscule defects, and the inability to process these perceptions contextually, i.e., to see them as inconsequential relative to appearance as a whole. We will also present new data from a neuroimaging study using body stimuli, showing similar abnormalities in addition to aberrant network connectivity in dorsal visual, parietal, and striatal networks. This connectivity showed significant associations with severity of BDD symptoms and insight, as well as being linked to their subjective perception of the bodies' attractiveness, aversiveness, and weight. We will discuss the implications of these results for understanding the pathophysiology underlying perceptual distortions for appearance in BDD, and how this knowledge can lay the groundwork for novel perceptual retraining treatment strategies.

### **A Visual Training Program for Body Dysmorphic Disorder: Protocol and Initial Feasibility Findings**

**Francesca Beilharz & Andrea Phillipou, Swinburne University of Technology, Australia**

**David J. Castle, University of Melbourne, Australia**

**Susan L. Rossell, Swinburne University of Technology, Australia**

**Introduction:** individuals diagnosed with body dysmorphic disorder (BDD), a psychiatric disorder characterised by perceived flaws in appearance, typically display poor long-term response to CBT with high relapse rates. Current treatments typically do not treat perceptual abnormalities which are a core feature of the disorder, and may maintain or worsen symptoms. The present research is a single-group pilot study to assess the feasibility and potential efficacy of a visual training program designed to remediate perceptual abnormalities in BDD. **Method:** Individuals diagnosed with BDD were recruited to the 10-week visual training program conducted at Swinburne University, Melbourne, Australia. The visual training program encompassed three modules on basic visual processing, face and emotion recognition, and self-perception, using a combination of cognitive remediation (BrainHQ) and therapist-lead interventions (perceptual mirror retraining). Pre- and post-assessments included an eye tracking battery, clinical interview and self-report measures. Participants were also invited to complete a qualitative interview regarding their experience of the program. The primary outcomes focused on feasibility and acceptability of the intervention, with secondary outcomes exploring changes in symptom severity, quality of life and eye movements.

Results: Eleven participants with BDD (8 females; age  $M=32.09$ ,  $SD=8.92$ ) were recruited to the study, representing a 58% recruitment rate over 12 months. Six of the eleven participants have completed the 10-week program to date, indicating a 54% retention rate, with one participant currently still enrolled. Regarding the acceptability of the intervention, one participant reported experiencing an adverse event, which was reported to the ethics committee. Qualitative analyses of participants' experiences are currently being undertaken, along with quantitative analyses of the secondary clinical outcomes.

Discussion: This novel pilot trial translates the empirical findings of abnormalities in perceptual processing present in BDD, to an innovative treatment trial designed to reduce symptom severity. In accordance with the protocol, these findings indicate that the novel intervention was partially successful, although the attrition rate was higher than expected. The present results indicated that recruitment is feasible, and highlighted factors such as program duration, symptom severity, psychological comorbidities and illness profile which may have influenced retention rates. The potential efficacy of the visual training program will also be discussed, focusing on changes in symptom severity and perception.

### **Usage of Cognitive Remediation to Enhance Executive Functioning and Global Perception**

**Tania Borda, BioBehavioral Institute and Argentinian Catholic University, Argentina**

Anorexia nervosa (AN) and body dysmorphic disorder (BDD) share many of the same debilitating characteristics, including: ritualistic or repetitive behaviors, intrusive obsessions, body shame, habit formation, cognitive inflexibility and body misperception. Within the last decade, there has been an increase in literature supporting the efficacy of cognitive remediation as a means to enhance neurocognitive functioning in anorexia nervosa. Individuals with anorexia nervosa have been shown to exhibit cognitive deficits associated with weak central coherence and impaired set-shifting abilities, most notably in the form of following rigid rules and repetitive behaviors around eating and managing weight, excessively fixating on details to the detriment of global features, and maintaining a distorted body image (Tchanturia et. al., 2012; Wood, Al-Khairulla, & Lask, 2011; Lopez, Tchanturia, & Treasure, 2008). These deficits are analogous to the salient neurocognitive deficits implicated in BDD as well.

Cognitive remediation therapy (CRT) attempts to create a metacognitive awareness of one's thoughts through separating the thought process from its content. CRT is believed to refine neural circuitry implicated in problematic cognitive processing and strengthen circuitry that emerges from utilizing more adaptive strategies in problem situations (Wood, Al-Khairulla, & Lask, 2011) as well as develop more global rather than detail oriented approach to things.

Similar to both OCD and AN, Body Dysmorphic Disorder (BDD) is rooted in rigid, repetitive, and debilitating behaviors and thought processes. However, for people with BDD, the source of anxiety is a specific feature of their own body rather than the hyper focus on weight seen in AN patients or array of obsessions in OCD patients. The misperception of their own bodily defects is related to abnormal visual processing, typically in the form of maintaining an enhanced focus on small features to the detriment of global perception. A study conducted by Mundy and Sadusky (2014) found that BDD individuals were able to discriminate inverted faces, bodies, and scenes faster than controls (Mundy & Sadusky, 2014). The ability to accurately identify inverted images may stem from the higher level of attention to specific detail compared to the control group. However, BDD participants were slower and less accurate with identifying emotional expression of people's faces. A possible application of this abnormality could lead to the misinterpretation of emotions and subsequently lead to ideas that others regard them in a contemptuous or threatening manner (Feusner, Bystritsky, Helleman, & Bookheimer, 2010). The tendency to disregard the holistic picture for the sake of the details explains the results of the two aforementioned experiments, and may explain the various cognitive and visuospatial deficits so commonly observed in BDD as well.

Because the neurocognitive deficits that CRT targets in AN patients are similar to those observed in BDD, the purpose of this study was to investigate the efficacy of CRT in the treatment of OCD and BDD. This presentation will go over recently collected data on 6 BDD and 6 OCD patients where CRT was added to CBT demonstrating a significantly more decrease in symptoms on the YBOCS as compared to the group where CRT was not added to the treatment as usual. CRT treatment method

### **Interpersonal Functioning and Hoarding Disorder**

**Convenor: Melissa Norberg, Centre for Emotional Health, Macquarie University**

**Chair: Melissa Norberg, Centre for Emotional Health, Macquarie University**

### **Multi-Informant Evaluation of Autism Characteristics in Adults with Hoarding Disorder: Implications for Interpersonal Functioning**

**Gregory Chasson, Illinois Institute of Technology, USA**

Individuals with hoarding disorder (HD) often present with a complex clinical picture, including comorbidity, lack of insight, and treatment ambivalence. To understand this clinical picture more thoroughly, studies have highlighted a possible phenomenological link between hoarding and autism spectrum disorder (ASD). Most investigations evaluate this link in participants with obsessive-compulsive disorder and/or ASD, but not among participants with HD. However, one recent investigation found evidence for increased ASD symptoms in an HD group, but the study only used self-report measures and tasks. Given the lack of insight so commonly associated with both HD and ASD, research would benefit from assessments from multiple raters.

To this end, the current multi-informant study evaluated the relationship between HD and ASD symptoms in 34 adult participants diagnosed with HD and one of their relatives. The participants with HD completed self-report questionnaires of ASD traits and HD symptom severity, and their relatives completed other-report questionnaires on clutter and ASD traits about their loved one with HD.

When evaluating the self-report data of those with HD, results indicate overall ASD traits and overall HD symptoms demonstrated a positive, moderate, and statistically significant relationship. When broken down into subscales, preliminary results show moderate, positive, and statistically significant relationships between ASD social communication difficulties and both difficulty discarding and acquisition, both of which are characteristics of HD. Restrictive and repetitive behaviors (RRB), a component of ASD, were also moderately, positively, and statistically significantly related to clutter.

Results of other-report from family members indicate that overall ASD traits and clutter behavior exhibited by the individual with HD demonstrated a positive, moderate, and statistically significant relationship. When broken down into subscales, results show a similar pattern for social communication difficulties and RRB ASD traits reported by the individual with HD.

Despite these similar patterns within informant, analyses of cross-informant responses indicate no significant correlations between responses from the adult with HD and their loved one across any of the HD or ASD indices.

These findings within informant (i.e., adults with HD and their family members) suggest that ASD traits and HD traits are correlated. This is the case despite any link due to ASD-based RRB including circumscribed interests and collecting behavior, because social communication

difficulties were shown to link positively and moderately to HD. The association between HD severity and ASD social communication difficulties has implications for interpersonal functioning in HD. Social competence impairment in HD may represent a common endophenotype between HD and ASD or a shared effect of each condition or its correlates.

### **Sensitivity to Criticism and Praise in Individuals with Hoarding, Collectors, and Healthy Controls**

**Ashley Shaw & Kiara Timpino, University of Miami, USA**

Case studies describe sensitivity to criticism in hoarding disorder (HD). Greater parental criticism has been associated with greater hoarding and compulsive buying symptoms, but no study has examined reactivity to criticism in HD patients. We examined differences in emotional reactivity to criticism (as well as praise) among HD persons, Collectors, and healthy controls (HCs). We used a multi-method approach for measuring emotional reactivity. We evaluated group differences on negative emotional reactivity (subjective, heart rate, corrugator electromyography; EMG) to critical comments. We examined positive emotional reactivity (subjective, heart rate, zygomatic EMG) in response to compliments. We predicted that emotional reactivity to both criticism and praise would be greatest among patients with HD. We also examined group differences on emotion regulation strategy use (i.e., rumination, suppression, and distraction) during criticism. We predicted that use of rumination, suppression, and distraction would be highest among patients with HD. Participants (N=69) were 25 HD persons, 21 Collectors, and 23 HCs. Heart rate and EMG were measured throughout the audio clips of criticism and praise. The Affect Balance Scale was used to measure negative and positive affect before and after each task. Directly following the critical comments, participants were asked to rate the extent to which they engaged in various emotion regulation strategies during the task. Controlling for baseline negative affect, we found a significant group difference on subjective emotional reactivity to criticism,  $F(2, 62)=4.28, p=.02$ ; HD persons reported significantly more negative affect in response to criticism than HCs. Groups did not differ on heart rate or EMG levels during criticism. Groups significantly differed on their use of rumination,  $F(2, 66)=12.86, p<.001$ , distraction,  $F(2, 66)=5.95, p<.01$ , and suppression,  $F(2, 65)=9.35, p<.01$ , during criticism. As predicted, participants with HD reported greater use of rumination and distraction compared to both Collectors and HCs. Participants with HD also reported more use of suppression than HCs, but Collectors did not differ from either group. Groups did not differ on subjective emotional reactivity or heart rate level during the compliments. However, controlling for zygomatic impedance, there was a significant cubic effect for the time X group interaction for zygomatic reactivity to the compliments,  $F(2, 44)=3.48, p=.04$ . Collectors showed greater reactivity than HCs for the first 30s and 60-90s of the task, and HD patients showed more reactivity than HCs for the last 60-120s. Results suggest that subjective emotional reactivity to criticism, and less helpful emotion regulation strategy use during criticism (e.g., rumination), is elevated in hoarding. In contrast, physiological reactivity to compliments may be elevated in those with both impairing and normative love for objects.

### **Object Attachment Mediates the Relationship Between Loneliness and Hoarding**

**Keong Yap, UNSW Sydney, Australia**

**Jan Eppingstall, RMIT University, Australia**

**Brandon Le, University of New South Wales, Australia**

**Catherine Brennan, Swinburne University of Technology, Australia**

**Jessica Grisham, University of New South Wales, Australia**

Evidence has accumulated that individuals with hoarding disorder tend to be interpersonally disconnected. Theorists have suggested that they may be compensating for social isolation via their emotional attachment to objects (or object attachment). In the current study, we investigated these associations in two samples, an unselected community sample and an undergraduate analogue sample. We evaluated whether loneliness predicted hoarding symptoms, and examined whether this association was mediated by object attachment. Community participants (N = 213) and university students with high levels of hoarding symptoms (N = 91) completed self-report measures of hoarding symptoms, loneliness, and object attachment. We conducted bootstrapped mediational analyses using PROCESS. In the community sample, the association between loneliness and hoarding symptoms was partially mediated by object attachment even after accounting for age. In the high-hoarding sample, this association was fully mediated even after accounting for age and depression severity. In future, longitudinal data will be needed to clarify whether social isolation is a cause or consequence of hoarding, or both. We discuss implications of these findings for theoretical models and treatment of hoarding disorder.

### **A Multi-Method Investigation of Attachment and Saving Behaviors**

**Brad Schmidt, Florida State University, USA**

Hoarding disorder (HD) is a severe and persistent mental illness characterized by extreme difficulty parting with possessions and considerable clutter that can result in dangerous living conditions. HD poses a considerable public burden; however, treatment for HD remains relatively limited, as many individuals do not respond to treatment and/or do not maintain treatment gains, suggesting there are important factors not being adequately addressed. One area that is not well-understood nor well-integrated into existing models is the pathological attachment individuals with HD hold to their possessions. It may be that individuals who hoard hold an increased attachment to possessions and decreased attachment to people, which underlie saving behaviors characteristic of the disorder. However, there is a dearth of empirical work examining this hypothesis. The current study examined associations between interpersonal attachment and hoarding symptoms, as well as the impact of a social rejection manipulation on behavioral responses to a lab-based discarding task. Participants (n = 111) were selected for reporting hoarding symptoms above the non-clinical mean on the Saving Inventory-Revised (total score  $\geq 23$ ). Participants completed questionnaires assessing baseline hoarding symptoms, attachment to possessions, and interpersonal attachment. Participants were asked to identify 10 valued possessions and rate their attachment to those possessions. They were randomized to either be included or excluded in a game of Cyberball, and subsequently completed a behavioral discarding task and attachment measures following completion of the game. Correlation analyses revealed that baseline interpersonal attachment was significantly associated with greater attachment to possessions ( $r = .20, p = .03$ ), but not hoarding symptoms ( $r = .13, p = .15$ ). Results indicated no group differences between individuals who were socially included and excluded in attachment to possessions and saving behaviors during the discarding task,  $p > .10$ . However, regardless of condition, participants who reported greater feelings of rejection also reported greater attachment to possessions in the discarding task,  $\beta = .15, t = 2.98, p = .004$ . Additionally, a chained mediation model showed that baseline interpersonal attachment was associated with greater in vivo feelings of rejection, which in turn, were associated with greater in vivo attachment to possessions, which was associated with a greater number of items saved during the lab task,  $b = .06, SE = .03, 95\% CI [.01, .13]$ . Taken together, individuals with insecure attachments may be at risk for developing HD as they may use possessions to cope with interpersonal stress. Results will be discussed in light of implications for theoretical models and potential treatment targets in HD.

### **Feeling Unsupported Changes Object Preferences**

**Melissa Norberg, Cassandra Crone & Vani Kakar, Macquarie University, Australia**

**Jessica Grisham, UNSW Sydney, Australia**

Cognitive-behavioural models of compulsive hoarding propose that people who hoard form maladaptive attachments to possessions, although the processes leading to attachment during acquisition are unknown. Feeling socially insecure may encourage individuals to acquire objects either because they have human-like properties that fulfil unmet needs or calming properties that relieve distress. This study aimed to identify factors contributing to object attachment and acquisition. To achieve this, 204 participants with excessive acquisition tendencies completed a perceived reliable or unreliable significant other prime before being asked to choose a human-like (tea holder that looked like a man) or non-human-like object with comforting properties (chamomile tea). Participants in the unreliable significant other condition were more likely to choose the chamomile tea, whereas participants in the reliable condition were more likely to choose the tea man. Interestingly, those in the unreliable significant other condition who chose the tea man self-reported greater hoarding problems. These findings suggest that using objects to cope with a thwarted psychological need rather than using them to cope with one's emotions may lead to greater acquisition and discarding problems in the long-term.

### **Translational Research on Hoarding: A Focus on Cognitive and Emotional Vulnerabilities**

**Convenor: Kiara Timpano, University of Miami, USA**

**Chair: Jessica Grisham, University of New South Wales, Australia**

### **Neuropsychological Functioning in Hoarding Disorder**

**Sheila Woody & Peter Lenkic, University of British Columbia, Canada**

**Rachael Neal, Concordia University, Canada**

Previous research has suggested that hoarding patients have problems with attention/working memory, decision-making, concept formation, planning/organization and problem-solving, and inhibitory control (Woody, Kellman-McFarlane, & Welsted, 2014). Confident conclusions are hampered, however, by varying diagnostic procedures (as the criteria developed over time) and, in some cases, small sample sizes. Few studies, for example, have referenced population norms in examining cognitive functioning, and many studies have been underpowered for adequate statistical testing. This study compared the performance of 74 adults with hoarding disorder and 65 healthy controls on a comprehensive battery of neuropsychological tests targeting executive functioning, attention, and memory conducted under standard clinical testing conditions. In diagnostic group comparisons, the hoarding disorder group showed no age-adjusted impairment in executive functions of planning/sequencing or inhibitory control and performed comparably to the age-matched healthy control group on tests of attention/working memory and visuospatial ability/learning/memory. As expected, the groups did not differ on initiation/fluency or overall intellectual functioning. Two clinical neuropsychologists examined each participant's profile (without diagnostic or hoarding symptom information) and made judgments of normal, borderline, or impaired functioning in the areas of cognition described above; their judgments did not distinguish the hoarding and healthy participants. Results will be discussed in relation to patients' beliefs about cognitive functioning (such as global inattentiveness), correlations between information processing and the major facets of hoarding behaviour, and implications for intervention planning.

### **Cognitive Bias Modification for Hoarding: Evaluating the Role of Beliefs**

**Kiara Timpano, University of Miami, USA**

**Jessica Grisham, Jonathan David & Peter Baldwin, University of New South Wales Sydney, Australia**

The cognitive-behavioural model of hoarding posits that maladaptive beliefs play a causal role in saving behaviours. These beliefs may operate as interpretive biases in ambiguous situations in which individuals must decide whether to discard an item. We implemented a novel interpretative cognitive bias modification paradigm (CBM-I) to modify hoarding-related interpretive bias in a sample of undergraduates with high hoarding symptoms ( $N = 95$ ). Participants were randomly allocated to either a positive CBM-I training condition, designed to reduce hoarding-related bias, or a control training condition. They completed questionnaire measures of hoarding symptoms and beliefs and behavioural measures of discarding before and after training. Although there were no differences between conditions on behavioural tasks, participants in the positive condition reported reduced hoarding symptoms and beliefs one week after positive CBM-I training relative to the neutral training condition. We review these findings in light of previous research on HD and consider potential clinical implications.

### **Cognitive and Neurological Markers in Hoarding Disorder: An fMRI Investigation**

**Maja Nedeljkovic & Reneta Slikboer, Swinburne University of Technology, Australia**

**Michael Kyrios, Flinders University, Australia**

**Richard Moulding, Deakin University, Australia**

Hoarding patients have been reported to exhibit attenuated ability to sustain attention, difficulty with distinguishing relevant items from irrelevant items, and problems with impulsivity, compared to clinical and healthy controls (Grisham et al., 2007; Tolin et al., 2011). Hoarding patients have also been reported to demonstrate excessive emotional attachment to their possessions (Steketee & Frost, 2003). Therefore, brain networks that underpin these cognitive impairments related to inattention and excessive emotional expression may have clinical utility as biomarkers to predict treatment response outcome. The paper will present preliminary results from a clinical study examining brain networks associated with attention and emotional decision-making processes. Participants with hoarding disorder and healthy controls were required to complete the Continuous Performance and the Affective Go/No-go Task while undergoing an fMRI. Findings indicate that, as expected, participants with hoarding disorder demonstrate higher levels of emotional attachment to possessions, indecisiveness and differences in activation of brain regions associated with response inhibition during continuous performance task.

### **Does Response Inhibition Training Reduce Compulsive Acquiring?**

**Helena Drury & Victoria Bream, South London and Maudsley NHS Trust, United Kingdom**

**Lucinda Gledhill, Juliana Onwumere, Emanuella Oprea & Elif Peksevim, King's College London, United Kingdom**

**Kim Wright & Natalia Lawrence, University of Exeter, United Kingdom**

Response inhibition training (RIT) has been found to reduce compulsive overeating (e.g. Lawrence et al., 2015), however this paradigm has not previously been assessed in compulsive acquiring, which is commonly reported in Hoarding Disorder (e.g. Frost et al., 2013). If

effective, RIT could be a useful addition to existing treatments for compulsive acquisition, by targeting bottom-up responses to items associated with urges to acquire. An analogue sample (students scoring highly on measures of acquisition) was used to compare the impact of an active RIT task (where commonly acquired items were consistently paired with no-go responses) to an inactive version of the task (with inconsistent stimulus-response mappings). Active RIT significantly reduced the attractiveness of acquirable items to participants compared to the inactive version of the task. The RIT effect also generalised to images in the same category as those paired with an inhibitory response (but not items from other categories), indicating that RIT may be able to target specific categories of items commonly acquired by an individual. Findings will also be presented for a case series of individuals meeting criteria for Hoarding Disorder who also completed the RIT program.

### **Cognitive Bias Modification for Hoarding: Evaluating the Role of Beliefs**

**Jessica Grisham, Jonathan David & Peter Baldwin, University of New South Wales, Australia**

The cognitive-behavioural model of hoarding posits that maladaptive beliefs play a causal role in saving behaviours. These beliefs may operate as interpretive biases in ambiguous situations in which individuals must decide whether to discard an item. We implemented a novel interpretative cognitive bias modification paradigm (CBM-I) to modify hoarding-related interpretive bias in a sample of undergraduates with high hoarding symptoms ( $N = 95$ ). Participants were randomly allocated to either a positive CBM-I training condition, designed to reduce hoarding-related bias, or a control training condition. They completed questionnaire measures of hoarding symptoms and beliefs and behavioural measures of discarding before and after training. Although there were no differences between conditions on behavioural tasks, participants in the positive condition reported reduced hoarding symptoms and beliefs one week after positive CBM-I training relative to the neutral training condition. We review these findings in light of previous research on HD and potential clinical implications.

### **Repetitive Thoughts and Actions: The Role of Dysfunctional Thoughts, Interpretation Biases, and Reliance on External Proxies**

**Convenor: Karina Wahl, University of Basel, Switzerland**

**Chair: Karina Wahl, University of Basel, Switzerland**

**Discussant: Christine Purdon, University of Waterloo, Canada**

### **Obsessive-Compulsive Tendencies and Lack of Feedback Predict Seeking Proxies for the Feeling of Understanding**

**Reuven Dar, Tal Eden, Michal van Dongen, Marit Hauschildt & Nira Liberman, Tel Aviv University, Israel**

Individuals suffering from obsessive-compulsive disorder (OCD) often feel uncertain about whether or not they have understood something they have read or heard. The Seeking Proxies for Internal States (SPIS) model of OCD postulates that obsessive-compulsive (OC) individuals have reduced access to their internal states and must therefore seek and rely on external proxies for these states. The present study extended this hypothesis to the feeling of understanding, which had not been examined previously in relation to OCD. We presented 148 participants with a computerized task requiring them to read and understand a text on medieval architecture. Participants were randomly assigned to an ongoing feedback condition (comprehension quiz and answers provided after each text segment) or no-feedback condition (quiz and answers provided only at the end). Throughout, participants were offered proxies in the form of "learning aids," which were pretested to be unrelated to actual text comprehension. Participants were divided to high vs. low OC tendencies based on a median split on a measure of OCD symptoms. As predicted, lacking ongoing feedback on understanding was associated with higher use of proxies,  $F(1, 144) = 13.24, p < .001, \eta^2 = .084$ . Also as predicted, high OC participants used more proxies than low OC participants in the no-feedback condition,  $F(1, 144) = 10.83, p = .001, \text{partial } \eta^2 = .070$ . Actual level of understanding, as assessed by comprehension scores, was unrelated to OC tendencies. These findings extend the SPIS model to the feeling of understanding and may have important clinical implications.

### **Beliefs About the Importance and Control of Thoughts are Predictive but not Specific to Intrusive Unwanted Thoughts and Neutralizing Behaviors During Exam Stress in a Prospective Study**

**Karina Wahl, Patrizia Hofer, Andrea Meyer & Roselind Lieb, University of Basel, Switzerland**

Dysfunctional beliefs are the central element in cognitive-behavioral conceptualizations of obsessive-compulsive disorder (OCD). The purpose of this study was to further elucidate the etiological role of preexisting dysfunctional beliefs in the occurrence of unwanted intrusive thoughts and neutralizing behaviors after a critical event by examining their predictive value and specificity in a prospective study with undergraduate students under exam stress. The dysfunctional belief domains importance/control of thoughts (ICT), responsibility/threat (RT), and perfectionism/certainty (PC) and dysfunctional beliefs in general were assessed at baseline 8 weeks prior to an exam situation in  $N = 79$  undergraduate students. Stress-related unwanted intrusive thoughts and neutralizing behaviors, anxiety, and depression were assessed during the week immediately before the exam. ICT and dysfunctional beliefs in general but not RT or PC prospectively predicted stress-related intrusive thoughts and neutralizing behaviors after controlling for baseline obsessive-compulsive symptoms, anxiety, and depression. ICT also prospectively predicted depressive symptoms but not anxiety, when controlling for baseline variables. RT and PC both prospectively predicted anxiety but not depressive symptoms, when controlling for baseline variables. Dysfunctional beliefs in general prospectively predicted stress-related intrusive thoughts and neutralizing behaviors, anxiety, and depression during exam stress. Findings are partially consistent with cognitive models of OCD. They support the idea that ICT and dysfunctional beliefs in general are cognitive vulnerability factors for unwanted intrusive thoughts and neutralizing behaviors during a stressful situation. Their predictive power was small and not specific to unwanted intrusive thoughts and neutralizing behaviors.

### **Beliefs about Losing Control, Obsessions, and Caution: An Experimental Investigation**

**Jean-Philippe Gagné & Adam Radomsky, Concordia University, Canada**

Maladaptive beliefs play a central role in cognitive models of obsessive-compulsive disorder (OCD), as they are thought to underlie symptom development and maintenance. Although specific belief domains have already been shown to be involved in OCD (e.g., inflated responsibility), recent experimental work suggest that negative beliefs about losing control also cause increased checking behaviour. Of note, a subset of individuals with OCD report a fear of losing control over their unwanted impulses when around threatening objects (e.g., kitchen knives). Nonetheless, it remains unclear whether beliefs about losing control over one's behaviour contribute to this phenomenon. This experiment aimed to examine the role of beliefs about losing control in the development of intrusive thoughts related to losing control and of fear/caution around sharp knives. In this study, 102 undergraduate participants received false feedback regarding the meaning of

experiencing intrusive thoughts related to losing control (i.e., “you are more likely to lose control over your behaviour” versus “intrusive thoughts are normal”). Participants were then asked to gradually approach sharp knives in a stepwise manner (i.e., behavioural approach test; BAT) and to sort the knives in a block as quickly as possible. Anxiety ratings were taken throughout the BAT. Afterwards, participants were asked to write down all intrusive thoughts related to losing control they had experienced during the BAT and to rate the extent to which they had been cautious while sorting the knives. As predicted, participants in the high (versus low) losing control condition reported significantly greater anxiety at each step of the BAT (all  $p$ 's < .05), especially while holding the knife above their head and in the direction of the experimenter,  $t(96.34) = 4.59$ ,  $p < .001$ ,  $d = .94$ . They also reported a significantly greater number of intrusive thoughts related to losing control,  $t(85.93) = 2.13$ ,  $p = .04$ ,  $d = .46$ , and perceived themselves as being significantly less cautious,  $t(70.74) = -2.11$ ,  $p = .04$ ,  $d = .50$ , while approaching and sorting the knives. Interestingly, more objective measures of intrusive thoughts and caution revealed no significant differences between conditions. Therefore, beliefs about losing control over one's behaviour appear to play a role in the development of fears of threatening stimuli and may explain why individuals with OCD often avoid everyday threatening objects (i.e., lower perceived carefulness). These beliefs also seem to increase the salience of disturbing intrusive thoughts, given that such thoughts were more memorable for individuals in the high losing control condition.

### **Training Implicit Associations in Contamination-OCD: Effects on Attentional Bias and Approach Behavior**

**Christina Dusen & Ulrike Buhlmann, Westfälische Wilhelms-Universität Münster, Germany**

Individuals with contamination concerns show aberrant patterns in information processing. So far, the causal role of threat-related associations in anxiety symptoms and attentional bias regarding contamination concerns is understudied. In our study, we investigate if training implicit associations affects stress reactivity and attention in the context of contamination concerns. In a double-blind randomized design, we used a modified Implicit Associations Task (IAT) to train associations between contamination and danger in a non-clinical sample ( $N = 121$ ). Training was either to strengthen or weaken these associations. Training groups were contrasted to a sham training control group. Dependent measures were a brief-IAT to assess changes in associations, two contamination-specific behavior approach tasks, and a spatial cueing task indicating attentional bias. Results show that training successfully modified implicit associations in expected directions. We did not find transfer effects on approach behavior or attention. Findings suggest that the modified IAT is a useful task to train implicit associations, but that transfer to other domains (attention and behavior) is limited. Limitations and future implications are discussed.

### **When the Experts Are Stretched: What Can be Learned from Challenging Obsessive-Compulsive Disorder Presentations**

**Convenor: Maureen Whittal, Vancouver CBT Centre and University of British Columbia, Canada**

**Chair: Maureen Whittal, Vancouver CBT Centre and University of British Columbia, Canada**

**Discussant: Roz Shafran, University College London, United Kingdom**

### **"Do I love him? I Don't Trust Him!": Treating Relationship Obsessive Disorder (ROCD) with Obsessive Distrust**

**Guy Doron, Baruch Iver School of Psychology, Israel**

Relationship Obsessive-compulsive disorder (ROCD) is a presentation of obsessive-compulsive disorder (OCD) focusing on close interpersonal relationships. Within romantic relationships, symptoms of ROCD include doubts regarding the quality and strength of one's feelings towards the partner, the partner feelings towards oneself and the “rightness” of the relationship (i.e., relationship-centered ROCD symptoms). ROCD symptoms also often involve preoccupations with the partner's perceived flaws in domains such as intelligence, appearance, sociality and morality (i.e., partner-focused ROCD symptoms). In this presentation, I will present the case of Rose. Her ROCD symptoms included doubts regarding the feelings she had towards her partner and obsessive jealousy-like behaviors. As treatment progressed, however, my initial conceptualization of obsessive jealousy was modified to obsessive distrust – obsessive doubts and preoccupation with the perceived untrustworthiness or unreliability of the partner. I will describe the case of Rose and discuss the conceptual underpinnings guiding my case conceptualization, its modification and resulting treatment. I will then share some lessons learned from this case that stimulated the development of the Obsessive Distrust inventory (ODIS).

### **Interventions with Sexual Imagery in Obsessive Compulsive Disorder**

**David Veale, University College London, United Kingdom**

The aim of this presentation is to explore different interventions for ego-dystonic sexual imagery in OCD. Imagery and thoughts in sexual obsessions are extremely distressing and often difficult to treat. They usually concern paedophilia or homosexuality. There are a range of “standard” interventions from normalising and reducing the shame around the image; putting the imagery in context and building on Theory B that the client is a person who cares a great deal about children; understanding the processes (e.g. thought action fusion) and re-appraisal of the meaning; formulating how responses maintain the imagery; response prevention (e.g. providing emotional support instead of reassurance or not checking for genital sensations); exposure / behavioural experiments to activities avoided (e.g. being with children or someone who is gay) whilst deliberately experiencing the intrusions; similarly acting on one's values despite the intrusions. Clients may accept these interventions intellectually but become overwhelmed by the emotion of anxiety and disgust when they experience the images and find it difficult to resist their covert compulsion. Interventions like tolerating the doubt (“Maybe I am a paedophile – Maybe I am not”) run the risk of becoming compulsions through self-reassurance. Interventions such as refocussing one's attention externally away from the image are difficult and might become avoidance. Other interventions that use the principles of exposure and tolerating the distress (e.g. loop tapes or prolonging the imagery to harming a child; or watching gay pornography); imagining the consequences (e.g. going to jail or being shamed) or making the imagery more humorous are often advocated but are more controversial and not evaluated

### **The Intersection of Contact and Mental Contamination in OCD: A Cognitive Construal and Therapy**

**Adam Radomsky, Concordia University, Canada**

Although contamination fears in OCD have traditionally been treated with exposure and response prevention (ERP), a behavioural approach, newer conceptualizations of contamination fear emphasizing the role of mental contamination have led to both cognitive theories and therapies for this common manifestation of OCD. This presentation will focus on the treatment of an individual who initially presented with what looked like contact contamination, and who reported several previous unsuccessful courses of ERP. A discussion of this person's concerns about contracting a sexually transmitted infection revealed a previously undiscussed mental contamination problem, which led to a

reformulation of the case based on cognitive theory, and which led to a successful course of cognitive therapy. Implications for assessment and practice will be discussed.

### **I Am What I Fear: A Multimethod Examination of the Role of Feared Possible Selves in Obsessive-Compulsive Disorder**

**Convenor: Shiu Wong, Concordia University, Canada**

**Chair: Roz Shafran, University College London, United Kingdom**

#### **Fear of Self and OCD Symptoms: Assessing the Role of Attachment Orientation**

**Guy Doron, Interdisciplinary Center Herzliya, Israel**

In recent years, self-vulnerabilities such as fear of self have been implicated in obsessive-compulsive (OC) phenomena. According to such models, individuals prone to developing obsessions and compulsions tend to become preoccupied and distressed with events that bear on their feared of self cognitions. It is unlikely, however, that every person experiencing an intrusive thought relating their feared self will be flooded by negative self-evaluations, dysfunctional beliefs, and obsessions. Consistent with previous suggestions, we proposed that attachment security (indicated by relatively low scores on attachment anxiety or avoidance) would buffer the adverse effects of fear of self. Community participant (n=237) completed measures of fear of self, attachment orientation, depression and worries. Mediation analysis suggested attachment security may partially buffer the effects of fear of self-cognitions on OCD symptoms. Theoretical and therapeutic implications of these findings will be discussed.

#### **Reduced Fear-of-Self is Associated with Improvement in Concerns Related to Repugnant Obsessions in Obsessive-Compulsive Disorder**

**Louis-Philippe Baraby & Frederick Aardema, Université de Montréal, Canada**

**Shiu F. Wong, Concordia University, Canada**

**Jean-Sébastien Audet, Université de Montréal, Canada**

**Gabriele Melli, University of Pisa, Italy**

The potential causal and maintaining role of vulnerable self-themes and beliefs about the self in obsessive-compulsive disorder (OCD) have received increasing attention from cognitive-behavioural theorists. This interest was translated into the development of a self-report measurement of the feared self (the fear of who one might be or become), a construct theoretically and empirically pertinent to unwanted thoughts and impulses in OCD (i.e. repugnant obsessions). The current study aimed to provide converging evidence on the relevance of the feared self in OCD, by examining whether improvements in symptoms associated with repugnant obsessions (measured on the Vancouver Obsessional Compulsive Inventory [VOCI] obsessions subscale) would be predicted by reduced feared self-perceptions (measured on the Fear-of-Self Questionnaire [FSQ]) in a sample of 93 patients receiving psychotherapy for OCD. Using a series of hierarchical linear regression models, we found that treatment-related reductions on the FSQ significantly and uniquely predicted reductions on the VOCI obsessions subscale and the contamination subscale. The current study thus replicated previous research suggesting the relevance of the feared possible self in psychological disorders such as OCD, where negative self-perception is a dominant theme.

#### **Feared Self and Obsessive-Compulsive Symptoms: An Experimental Manipulation Using Virtual Reality**

**Shiu Wong, Concordia University, Canada**

**Frederick Aardema, Université de Montréal, Canada**

**Adam Radomsky, Concordia University, Canada**

Feared self-perceptions (e.g., 'I'm scared I am a sexually violent person') are proposed to cause and maintain symptoms of obsessive-compulsive disorder (OCD). Recent research has shown that self-reported feared self-perceptions are uniquely associated with OCD symptoms, independent of the obsessional beliefs identified by traditional cognitive theories of OCD. The current study aims to clarify the causal role of feared self-perceptions in OCD by experimentally manipulating these using a virtual reality paradigm. A projected 160 participants will be randomly assigned to having their feared self-perceptions increased (feared self condition) or decreased via virtual reality (control condition), followed by completing self-report and behavioural measures of OCD symptoms (e.g., the frequency of and distress associated with intrusive thoughts). Data collection is ongoing and pilot data will be presented. We predict that individuals in the feared self condition, relative to the control condition, will experience more OCD-relevant intrusions, experience more distress associated with these intrusions, and report more OCD symptoms. Conclusions are pending and subject to completion of the final analyses.

#### **Feared Self, Inferential Confusion and Obsessive Compulsive Symptoms: An Experimental Analysis**

**Yoon Yang, Richard Moulding & Jeromy Anglim, Deakin University, Australia**

**Feared Self and Inferential Confusion in Obsessive Compulsive Disorder**

Feared-self has been posited to be a vulnerability factor for many psychiatric disorders, and it has received particular attention recently for Obsessive Compulsive Disorder. It has been theorised that feared self may lead to obsessive compulsive disorder due to inferential confusion (Aardema et al., 2009). This study aimed to further explicate the conditions under which feared self perceptions lead to urge to act and doubt using experimental methods in a non-clinical population. In total, 208 adult participants were recruited using Prolific for this study. Participants were randomised into four conditions: rating urge to act vs. doubt; high vs low responsibility conditions. All participants were given six sets of vignettes including contamination-related vignettes, checking-related vignettes, as well as control vignettes. After reading each vignette, participants were asked to rate either the probability of negative consequences in the vignettes (obsessional doubt) or their urge to act in such situations to measure their baseline obsessional doubt and urge. Then four pairs of sensory based information (e.g., You look in the rear-view mirror and see a pothole in the road) and possibility based information (e.g., The pothole may not have been deep enough to cause the bump) were presented on the screen and participants were asked to rate obsessional doubt and urge after each statement. The vignettes were written according to two themes: one where all possibility-related information is related to threat (inferential confusion), and the other where all sensory information is related to threat (prudential hypothesis). All participants were presented with both types of vignettes. Following the experiment and filter tasks, participants were asked to complete a range of questionnaires assessing depressive mood, OCD symptoms, magical thinking, and feared self. Through this analysis the effect of inferential confusion and responsibility on doubt and urge in OCD-relevant situations was analysed, and their relationship to underlying self-perceptions,

## **An Ecological Momentary Assessment of OCD-Relevant Intrusions: The Relationship Between Frequency, Reasoning, Feared-Self, and Concealment**

**Tess Jaeger, Richard Moulding, Matthew Fuller-Tyszkiewicz & Jeromy Anglim, Deakin University, Australia**

**Tess Knight, Cairnmillar Institute, Australia**

**Ross King, Deakin University, Australia**

Obsessive-compulsive disorder (OCD) is a debilitating psychiatric condition defined by distressing and unwanted mental intrusions (obsessions), which typically lead to persistent and repetitive attempts to alleviate distress or prevent the implied harm (compulsions). Individuals without OCD also experience OCD-relevant unwanted mental intrusions. However, intrusions occurring in non-clinical populations are less frequent, intense, and more readily dismissed than those experienced by individuals with OCD. As such, it is possible that intrusions within non-clinical populations are under-reported. The dynamics surrounding the experience of intrusions are also unclear. This study is the first to employ ecological momentary assessment (EMA) to examine the relationship between frequency of OCD-relevant unwanted mental intrusions, reasoning processes, feared-self beliefs, and the tendency to hide aspects of the self, or symptom dimensions. Non-clinical participants (N = 52; 32 female; Mage = 34.33, SD = 15.44) were invited to complete an online baseline questionnaire comprising measures of unwanted mental intrusions, obsessive-compulsive (OC) symptoms, obsessive-beliefs, inferential confusion, feared self, self-concealment, distress disclosure, and depressive symptoms. Participants were then instructed to download a smartphone application, which prompted them to complete a short survey five times daily over the course of 14 days. Survey items were designed to align with baseline measures, and focused on the participant's most recent intrusion. Initial findings from the baseline data indicate that there are strong positive correlations between fear of self and self-reported intrusion frequency/discomfort, as well as OC symptoms, obsessive beliefs, inferential confusion and self-concealment. Feared-self endorsement is also associated with greater depressive symptoms. Additional analyses of EMA data will be carried out to examine the relationships between retrospective and in-the-moment reports of intrusions. Implications for theory and treatment will be discussed.

## **Symposia 16: Personality Disorders**

### **Metacognitive Interpersonal Therapy for Personality Disorders: Empirical Evidence so Far**

**Convenor: Giancarlo Dimaggio, Centro di Terapia Metacognitiva Interspersonale, Italy**

**Chair: Giancarlo Dimaggio, Centro di Terapia Metacognitiva Interspersonale, Italy**

#### **Promoting Metacognition in Patients with Over-Regulated and Bizarre Features**

**Simone Cheli, University of Florence and Tages Charity, Italy**

Patients with severe personality disorders frequently exhibit impaired metacognition, that is a significant and recurrent difficulty in reflecting upon one's own and others' mental states. Such an impairment may involve different dysfunctional strategies. Many studies have explored the role of emotional and behavioral dys-regulation, less is known about patients with over-regulated (e.g. obsessive-compulsive personality disorder; avoidant personality disorder), and especially, bizarre and odd features (e.g. schizotypal personality disorder). On the one hand, inhibited patients often report poor narratives that are difficult to be conceptualized in order to promote change. On the other hand, schizotypal, paranoid and schizoid personality disorders patients exhibit odd patterns that significantly obstruct any therapeutic intervention. The aim of this presentation is to summarize the preliminary results of a few single case series studies on the application of MIT on over-regulated and bizarre patients. Two different studies on over-regulated patients have shown a reliable change at the end of treatment for reduction in total number of personality disorder criteria and in overall symptoms. An ongoing study on cluster A personality disorders patients is highlighting promising results in terms of a significant reduction of overall symptoms and, specifically, of prodromal symptoms of psychosis. MIT offers a standardized even if flexible approach that may support therapists in facing with severe personality disorders. The shared formulation of functioning through the lengths of metacognition allows the therapist to tailor the change promotion on diverse personality patterns.

#### **MIT Individual to Increase Adherence to Medications in Persons with HIV, Personality Disorders and Alexithymia**

**Sonia A. Sofia, Hospital Cannizzaro and Spazio Imago - Centro clinico e psicoterapia, Italy**

**Raffaele Popolo, Tiziana Passarella, Paolo Ottavi & Antonella Centonze, Centro di Terapia Metacognitiva Interspersonale di Roma, Italy**

**Angus MacBeth, University of Edinburgh, Scotland**

**Giancarlo Dimaggio, Centro di Terapia Metacognitiva Interspersonale di Roma, Italy**

##### **Objectives**

The objective of our study was to: a) identify HIV-positive subjects with incomplete adherence to antiretroviral therapies who had 1) personality disorders and 2) alexithymia ranging from borderline to pathological; b) use MIT to improve adherence to antiretroviral therapies.

The study was proposed to all those patients pertaining consecutively to the Infectious Diseases Clinic of the Infectious Diseases Institute at the Cannizzaro Hospital in Catania and the University of Catania.

Type of research: series of single cases

Inclusion criteria: We included HIV-positive subjects following a course of antiretroviral therapy who met the following requisites:

- Age > 18;
- Personality disorder diagnosed by DSM 5;
- Alexithymia score >50;
- Chronic HIV infection with incomplete virological suppression in three consecutive tests and an absence of mutation in the main resistance tests;
- Enough knowledge of Italian to understand the psychological tests;
- Able and willing to provide written informed consent;
- No cognitive impairment resulting from the neurocognitive tests recommended by the current Italian guidelines.

##### **Exclusion criteria:**

- Serious psychiatric diseases such as schizophrenia and bipolar disorder;
- Neurological diseases affecting the central nervous system;



- Cranial trauma with loss of consciousness of more than 10 minutes;
- Presence of acute opportunistic infections, active neoplasia or pregnancy.

At the baseline evaluation every patient who consented to participate in the study was subjected to a structured interview where socio-demographic variables, history of the infection and the presence of other associated pathologies were recorded.

The duration of the HIV infection was noted together with the duration of the treatment for HIV, the current CD4 T cell count, the CD4/CD8 ratio, the levels of HIV-RNA at the moment of diagnosis and at the moment of enrolment, the current antiretroviral therapy and the dosage of C reactive protein as an index of immunoactivation (PCR).

1. The patients underwent six months of psychotherapy treatment: those patients who had a viral load detected in three successive surveys, who declared poor adherence in the adherence questionnaire and who had personality disorders were given a course of psychotherapy with 24 meetings over a 6-month period (one meeting a week) with a further 2-month follow-up period (one meeting a month) with qualified staff specialized in Interpersonal Metacognitive Therapy. During the meetings the therapists and patients analyzed current and previous periods of non-adherence to therapy. The patients were invited to consider relational episodes that occurred before the missed treatment.

Once the reasons for the missed treatment had been understood and clarified there were two main goals:

- To help patients deal differently with the antecedent of non-adherence, so as to ensure the correct intake of medication;
- To understand their dysfunctional interpersonal patterns and change them.

At the end of the period, the patients were again subjected to psychological tests and blood tests, including lymphocyte subpopulations, viral load and C reactive protein. The objective was considered as being reached if the patients taking part in the study achieved a viral replication of below 50 copies/ml.

### **Metacognitive Interpersonal Therapy-Group (MIT-G): Description of the Protocol and Review of the Evidence**

**Raffaele Popolo, Centro di Terapia Metacognitiva Interpersonale, Italy**

**Luana Lazzarini, Studi Cognitivi, Modena, Italy**

**Gloria Venturelli, Servizio Psicologia Clinica DSM AUSL Modena, Italy**

**Antonella Centonze, Tiziana Passarella, Melania Marini & Giancarlo Dimaggio, Centro di Terapia Metacognitiva Interpersonale, Rome, Italy**

Patients with personality disorders (PD) featuring aspects of emotional over-control and experiencing interpersonal relationships in a problematic way, are guided by schemas consolidated which predicts their core wishes will remain unmet. They also feature poor metacognition, that is reduced capacity to recognize, reason upon and mastery mental states, which makes them unable to form more benevolent and adaptive views of themselves and the others.

The main treatment goal is consequently to improve their metacognitive capacity in order to make them more aware of their maladaptive interpersonal schemas and use this knowledge in order to form more effective social problem solving strategies. We have designed Metacognitive Interpersonal Therapy in Group (MIT-G) in order to address the needs of patients diagnosed with these PD in a way that is possibly cost-effective.

MIT-G is a 16-session manualized intervention including psychoeducation on the main interpersonal motives (e.g. attachment, social rank, exploration) and an experiential component where narrative episodes are role-played in order to improve mentalistic knowledge for purposeful problem-solving.

We describe here the results of 1) first feasibility, acceptability and clinical effectiveness RCT (Popolo et al., 2018), 2) a pilot replication non controlled study (Popolo et al., 2018b); 3) the interim results of a **second** RCT based on a power analysis on the outcomes from the first trial.

### **The Metacognitive Interpersonal Mindfulness-Based Training: Protocol and Evidence from a Pilot Study**

**Tiziana Passarella, Paolo Ottavi, Manuela Pasinetti, Giampaolo Salvatore, Raffaele Popolo & Giancarlo Dimaggio, Centro di Terapia Metacognitiva Interpersonale, Italy**

Individuals with Personality Disorders experience worry and repetitive thoughts regarding interpersonal scenarios.

In order to treat people affected by PDs, we have developed a new mindfulness protocol, called Metacognitive Interpersonal Mindfulness-Based Training (MIMBT).

In this pilot study n=28 individuals attended 9 weekly sessions to evaluate the feasibility, acceptability and to establish preliminary outcomes.

All individuals completed the program and attendance was very high (96%). Significant changes were observed on the primary outcome of reduction in repetitive thinking, as well as a decrease in depression severity.

Limitations will be discussed. With replication MIMBT is a candidate for being an effective option to treat repetitive thinking about interpersonal relationships and the associated symptoms in social dysfunctions.

### **Efficacy and Prediction Factors of Schema Therapy and the Influence of Comorbidity**

**Convenor: David Koppers, GGZ Arkin and Free University Amsterdam, the Netherlands**

**Chair: Lotte Lemmens, The Maastricht University, the Netherlands**

**Discussant: Eckhard Roediger, Institut für Schematherapie, Germany**

### **Time-Limited Schema Group Therapy: What Predicts Outcome?**

**Michiel Vreeswijk, GGZ G-kracht and Leiden University, the Netherlands**

**Ph. Spinhoven, A. M. E. E. Zedlitz, E. H. M. Eurelings-Bontekoe, Leiden University, the Netherlands**

This study concerns to the predictive value of schemas and mode on outcome of time-limited schema group therapy. Routine Outcome Monitoring data of outdoor with personality disorders and/ or long-lasting clinical syndromes following a time-limited schema group therapy were used to analyze predictors of treatment outcome.

### **Schema Therapy for Borderline Personality Disorder and Alcohol Use Disorder**

**Michiel Boog, GGZ Antes Groep and Erasmus University Rotterdam, the Netherlands**

**Anna Goudriaan, University of Amsterdam and Arkin Mental Health Care, the Netherlands**

**Ben Wetering, Antes Group, the Netherlands**

**Ingmar Franken, Erasmus University Rotterdam, the Netherlands**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

#### **Objective**

This study was designed to find out whether there are indications for the effectiveness of Schema Therapy for patients with borderline personality disorder (BPD) and alcohol use disorder (AUD).

#### **Methods**

The study was designed as a single case series design study with multiple baseline. Twenty patients with BPD and AUD received on average 80 sessions of individual therapy. After a baseline of treatment-as-usual, Schema Therapy was applied. Every therapy session was preceded by an assessment of BPD symptoms and a urine test, to check abstinence.

#### **Results & Conclusion**

Results supporting the effectiveness of ST were found. Details of the results will be presented and clinical relevance will be discussed.

### **The Influence of Depressive Symptoms on the Efficacy of Long Term Group Schema Therapy for Personality Disorders**

**David Koppers, GGZ Arkin and Free University Rotterdam, the Netherlands**

**Michiel Vreeswijk, G-Kracht and Leiden University, the Netherlands**

**Michiel Boog, Antes group and Erasmus University Rotterdam, the Netherlands**

**Lotte Lemmens, Maastricht University, the Netherlands**

**Eckhard Roediger, Institut für Schematherapy Frankfurt, Germany**

#### **Introduction**

Several studies demonstrated the efficacy of schemafocused therapy for borderline patients. However, in clinical practice most personality pathology presents in mixed forms of both cluster B and cluster C symptoms and the evidence of schema therapy in these types is rather scarce. In addition, most studies concern individual therapy while schema group therapy might be an (cost) efficacious alternative

#### **Methods**

In a cohort study long-term Group Schema therapy (GST) were investigated. The total sample consists of 203 referred personality disorder patients with (n=87) and without (n=116) comorbid depression. Assignment for long-term group was based on a clinical evaluation of severity, duration and level of general functioning. We measured outcomes at three levels: general symptom severity (General Severity Index scale (GSI) of the SCL-90-R); severity of maladaptive schemas (Young Schema Questionnaire) and schemamodi (Schema Modi Inventory). Secondly, we determined treatment remission on pre- to post- and follow-up treatment changes on the SCL-90 Global Severity Index (GSI).

The results show a significant within group effects on all measures for both patient groups. For the total sample symptom reduction after treatment and at follow-up were ES= 0.43 and 0.43 respectively ( $p<0.05$ ). Reduction of dysfunctional schema's were ES=0.65 and 0.72 respectively ( $p<0.05$ ). The minority of the total sample remitted at treatment termination (i.e. 26%), this percentage remain stable during follow up. There was no difference between personality disorder patients with or without comorbid depression in treatment outcome.

#### **Conclusion**

In conclusion, GST proved to be an effective approach for a broad group of patients with personality disorders, including those with severe comorbid depressive symptoms, since it can lead to improvements not only in symptoms but also in underlying schemas and schemamodi. Nevertheless, we should stress that the majority of patients did not achieve symptom remission. In particular, more severe patients with comorbid depressive symptoms may need higher doses or more intense treatment.

### **Treating Borderline Personality Disorder: An International Multicentre Randomized Controlled Trial Comparing Group and Individual Formats of Schema Therapy with Treatment-As-Usual**

**Convenor: Christopher Lee, University of Western Australia, Australia**

**Chair: Christopher Lee, University of Western Australia, Australia**

**Discussant: Christopher Lee, University of Western Australia, Australia**

### **Comparing Treatment Outcomes of Two Formats of Group Schema Therapy and Treatment as Usual for Borderline Personality Disorder: Should we Deliver Group or Combine Individual and Group Schema Therapy?**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

#### **GST Study Group**

The last decades group Schema Therapy (GST) as a treatment for Borderline Personality Disorder (BPD) has become popular around the world, boosted by great results from a small RCT of its originators Joan Farrell and Ida Shaw. However, several questions remained, such as (i) how well does GST perform compared to Treatment as Usual (TAU) in different countries when applied by other therapists than its originators; and (ii) what is the best format to deliver GST: combined with individual ST or with only a very limited number of individual sessions? To investigate these issues, a large international RCT was set up with 15 sites from Australia, Germany, Greece, the Netherlands, and the UK. Thirty cohorts of 14-18 patients were recruited, and randomized to either group-ST vs. TAU, or to combined individual-group ST vs. TAU. More than 480 patients were recruited. The ST conditions had two sessions per week in year 1, after which session frequency was gradually decreased in year 2.

In this presentation the first results that include assessments up to and including a follow-up at year 3 will be presented. First, we will compare treatments as to treatment retention. Second, we will discuss the effectiveness on the primary outcome, severity of BPD manifestations as assessed with the BPDSI. Third, effects on secondary outcomes will be discussed.

## **Schema Therapy for Borderline Personality Disorder: Patients' Perceptions of What Helped and What Didn't**

**Christopher Lee, University of Western Australia, Australia**

**Yeow May Tan, Murdoch University, Australia**

**Lynn Averbeck, University of Hamburg, Germany**

**Odette Brand, The Netherlands Institute for Personality Disorders, the Netherlands**

**Desiree Martius, University of Amsterdam, the Netherlands**

**Eva Fassbinder, University of Lübeck, Germany**

**Gerhard Zarbock, Institut Für Verhaltenstherapie-Ausbildung Hamburg, Germany**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

Schema therapy (ST) has been found to be effective in the treatment of Borderline Personality Disorder (BPD). However very little is known about how the therapy is experienced by individuals with BPD including which specific elements of ST are helpful or unhelpful from their perspectives.

The aim of this study was to explore BPD patients' experiences of receiving ST, in intensive group or combined group-individual format. Participants were recruited as part of an international, multicentre randomized controlled trial (RCT) involving 480 patients. Qualitative data were collected through semi-structured interviews with 36 individuals with a primary diagnosis of BPD (78% females). All participants interviewed had to have received ST for at least 12 months. Interview data (11 Australian, 12 Dutch, 13 German) were analysed following the procedures of qualitative content analysis. All interviews were audio-recorded and transcribed verbatim. Two independent raters coded the data and saturation was achieved after 8 interviews. Cohen's Kappa was calculated and the inter-coder reliability was good for each topic area (range .71 to .80). Schema therapy (ST) has been found to be effective in the treatment of Borderline Personality Disorder (BPD). However very little is known about how the therapy is experienced by individuals with BPD including which specific elements of ST are helpful or unhelpful from their perspectives.

Patients' perceptions of the benefits gained in ST included improved self-understanding, and a better awareness and management of their own emotional processes. While some aspects of ST, such as experiential techniques were perceived as emotionally confronting, patient narratives informed that this was necessary. Some recommendations for improved implementation of ST include the necessary adjunct of individual sessions to group ST and early discussion of therapy termination. Other implications include guidelines for the inclusion of patients for group in ST.

## **The Experience of Schema Therapists Who Provided the Treatment: What We Learnt**

**Desiree Martius, University of Amsterdam, the Netherlands**

Abstract 'The experience of schema therapists who provided the treatment: what we learned.'

Introduction: Over the last decade, schema therapy has become an increasingly important option in outpatient treatment of Borderline personality disorder (BPD). To provide a format of schema therapy that optimizes treatment outcome for people with BPD, it is important to take therapists' experiences into account. This study was set up as part of an international multicentre RCT comparing treatment outcome of two formats of group schema therapy and treatment as usual for BPD and has as main goal to gain more insight in therapists' perspectives. The aim is to learn more about therapists' experiences with providing schema therapy treatment for patients with BPD in an intensive group or combined group-individual format.

Method: Qualitative data were collected through conducting 28 semi-structured interviews in 5 different countries (the Netherlands, Germany, the United Kingdom, Greece and Australia). All therapists participated in the international multicentre RCT. Interview data (8 Dutch, 8 Australian, 6 German, 4 English, 2 Greek interviews) were analyzed following the procedures of qualitative analysis.

Results: Therapists responded positively about the framework of schema therapy, especially the mode model and the applicability in the population of people with BPD. The powerful effects of experiential techniques are mentioned frequently, as well as the difficulty therapists and patients experienced with fulfilling it, particularly during group therapy. Other effects of aspects of schema therapy are the strength of the therapeutic relationship, just as the surprising effect of Happy Child mode exercises. Furthermore, therapists also viewed the model as demanding and warned about the emotional impact on patients and therapists. How to keep the balance as a therapist is a recurring subject of recommendations made. Proper basic conditions, comprehensive preparations and follow up, including time to understand and discuss therapists' own modes, a clear embedding of schema therapy in the organization and the relationship with your co-group therapist, are suggested. Subjects of discussion are the optimal format (intensive group versus combined group-individual), similarities and differences with mainly dialectical behavioral therapy (DBT) and how schema therapy and DBT can learn from and inspire one another and finally, selection criteria during assessment of patients.

Conclusions: Therapists shared their enthusiasm for the model including the effects of the experiential techniques and the therapeutic relationship and practicing it in a population of people with BPD compared to treatment as usual. Critical remarks arose about the implementation, concerning both practical and content issues affecting both patient and therapist. Eventually leading to recommendations about keeping the balance for the therapist including the importance of a good relationship with the co-group therapist and a discussion about the exclusion criteria and the optimal format.

## **Providing Therapist Supervision Across Different Countries and Cultures: The Work of Joan Farrell and Ida Shaw**

**Heather Fretwell, Indiana University, USA**

**Joan Farrell & Ida Shaw, Schema Therapy Institute Midwest, USA**

This talk addresses the many and varied cultural differences related to providing and supervising schema therapy in different countries and parts of the world. The talk will focus on variances in cultural norms for emotional expression, acceptance of emotions, and how language structures interact with these as related to establishing and working to meet core emotional needs, and successes from a supervisory standpoint in navigating tensions that can arise from competition of cultural norms and the core emotional needs of a person. While much of the experience for the basis of this talk comes from the large study of group schema therapy described by earlier talks in this symposium, additional world-wide experiences are drawn from as well. The major geographic areas represented in the talk include various European countries; Scandinavia; Russia; North America; areas of South America; and Japan.

## **Implementing Dialectical Behaviour Therapy in Routine Clinical Practice: Outcomes and Sustainability**

**Convenor: Michaela Swales, Bangor University, United Kingdom**

**Chair: Michaela Swales, Bangor University, United Kingdom**

### **Predicting Implementation Outcomes in NHS Mental Health Systems: A Case-Study**

**Michaela Swales & Andrew Wildman, Bangor University, United Kingdom**

Implementing DBT in routine clinical practice presents a number of challenges that have been frequently described (Carmel et al, 2013; Swales, et al, 2012; Flynn et al, in prep). Commonly reported barriers to successful implementation include: lack of management support for delivery; conflicting staff roles; insufficient resources to deliver the programme. Most studies have retrospectively interviewed DBT therapists about factors impacting implementation efforts. One prospective study of DBT implementation examined the number of modalities of the treatment implemented 5-12 months post-training, finding that 75% of teams implemented all four modes of DBT with almost 87% implementing three modes (Harned, et al, 2016). This study examines the implementation on DBT within a single NHS organisation in the UK to examine predictors of implementation success. All participants in an Intensive Training supported by senior management within the organisation were invited to take part. Participants completed measures assessing: their attitudes to borderline personality disorder and evidence-based practice, their perceptions of organisational readiness for change and barriers to implementing DBT, levels of burnout and DBT skills use. Measures were taken at the start of Part 1 of the training and at Part 2 of the training five months later. Outcomes assessed were: retention of staff in the teams, number of modalities of treatment offered and number of clients seen 6 months post-training. The presentation will describe the implementation studied and report preliminary outcomes from this prospective study.

### **Patient Variables at Baseline as Predictors of Outcomes of Dialectical Behaviour Therapy for Adults with a Diagnosis of Borderline Personality Disorder**

**Jim Lyng, Trinity College, Ireland**

**Michaela Swales, Bangor University, United Kingdom**

**Richard Hastings, University of Warwick, United Kingdom**

**Background.**

Little has been reported on whether patient characteristics at baseline are associated with treatment outcomes for adults with a diagnosis of borderline personality disorder (BPD) in dialectical behaviour therapy (DBT).

**Current study.**

As a secondary analysis, we carried out an investigation of several patient characteristics as potential predictors of outcome for adults with BPD who engaged in one year of community-based treatment with comprehensive DBT (i.e. with all modes of DBT: weekly individual therapy and skills training group, between session coaching, and weekly consultation meetings for therapists). Patient sociodemographic characteristics, symptoms, and coping style at baseline were selected as potential predictors based on known relationships to BPD, as well as some naturally occurring variables that may be associated with outcomes.

**Method.**

A battery of self-report measures and sociodemographic information was collected at baseline on 90 adult patients with BPD who started one year of comprehensive DBT at four different sites in the community. Dropout was recorded (n = 17) and post-treatment outcomes and clinically significant change for completers (n = 73) were assessed using the Borderline Symptom List 23 (BSL23) and Global Severity Index (GSI) from the Symptom Checklist 90 Revised.

**Results.**

A series of regression analyses found that being female was associated with better outcomes on BSL23 and GSI, and both lower suicidal ideation at baseline and being employed/in-education at the start of treatment were associated with better outcomes on GSI. The absence of a post-traumatic stress disorder (PTSD) diagnosis at baseline was related to a higher incidence of clinically significant change on BSL23 and GSI and being employed/in-education at baseline was associated with a higher incidence of clinically significant change on GSI.

**Discussion.**

Treatment modifications may be helpful for factors more likely to be associated with a poor response (e.g. gender-specific skills for males and adjunctive treatment for patients with concurrent PTSD). The selected variables explained only a small proportion of outcome variance. Further investigation of other predictors is needed. Limitations apply, including small sample size and reliance on patient self-report.

### **DBT on the DBT Therapist: Researching DBT Consultation Team**

**Amy Gaglia, Bangor University, United Kingdom**

One of the DBT functions is to enhance the capabilities and motivation of therapists to treat clients. While the mode that addresses this function is the consultation team meeting, which is a peer consultation meeting that happens weekly for a duration of 1.5-2 hours. Linehan (1993), the treatment creator, posited that support for therapists working with suicidal and self-harming clients must be an integral part of the therapy and that supervision cannot be ancillary to the treatment as it is in many other therapies. Linehan also specified in the treatment manual therapists use consultation team meeting to apply DBT to themselves: The assumptions of the therapy as well as the strategies are applied to therapists in aid of the work that they are doing with their clients and thus it should theoretically be possible to study and measure the behaviour of the therapists in consultation team meetings. Previous research on DBT, including dismantling studies, have not generally focused on consultation team. The presentation will focus on preliminary results from a feasibility study that attempts to use the research-based tool for measuring adherence in DBT, the DBT ACS, to examine the processes of consultation team. In addition, data on burnout and helpful aspects of consultation will be presented.

### **Targeted Implementation of DBT Steps A (DBT-SA) in Schools: Challenges and Outcomes of Working with Peripatetic Counselling Services Across Different Sites**

**Graeme Ramage & Michaela Swales, Bangor University, United Kingdom**

Targeted implementation of DBT Steps A (DBT-SA) in schools: Challenges and outcomes of working with peripatetic counselling services across different sites

Dialectical Behavioural Therapy- Steps A (DBT-SA) is a further iteration of the DBT stable of interventions. It shares the same theoretical foundations and methods of delivery as standard DBT but it is intended for use within a school environment. It is aimed at increasing skills in secondary aged children to manage distress; become more interpersonally effective, manage emotions and be more mindful. The programme

is initially designed to be delivered by teachers on a universal basis to all young people in a school setting over the course of an academic year.

Novel mixed methods research was carried out into the feasibility of the DBT- SA when delivered by peripatetic school counsellors to a targeted group of young people across three urban and rural sites in Wales. The programme was delivered in both English and Welsh. This symposium will discuss the challenges and outcomes of this intervention. It will focus on the development of this initiative and the maintenance processes required throughout the intervention. Challenges of bi-lingual delivery will be addressed as well as the training needs of a group of staff who were not familiar with the core DBT model. Results will be presented with a particular emphasis on evaluation measures. Solutions to address difficulties in carrying out research in real world settings will be discussed. Qualitative analysis will be put forward to illustrate the impact of the group on the young people who participated, alongside their own ideas as to how the programme could be improved. Recommendations for further areas of research will be presented.

### **Sustainability of DBT in Routine Clinical Practice: What Do we Know?**

**Michaela Swales, Bangor University, United Kingdom**

Dialectical Behavior Therapy (DBT) is a comprehensive, cognitive-behavioral treatment with well-established efficacy in the treatment of suicidal individuals with borderline personality disorder (Miga et al, 2018). Extensive research has demonstrated the efficacy of DBT in treating individuals with other diagnoses and presenting problems, as well as the effectiveness of DBT in community mental health settings (Walton & Comtois, 2018). An estimated 6,000 provider teams in 19 countries have participated in training to deliver DBT (DuBose, et al, 2018). International work on the installation and sustainability of DBT programmes in routine clinical settings indicates that ensuring effective implementation presents a number of challenges. This presentation will review sustainability data from the UK and Ireland to highlight the challenges to sustainability. The presentation will conclude by considering how the most significant of the barriers to effective implementation may be ameliorated in order to improve the outcomes of suicidal clients in mental health settings.

### **Symposia 17: Family, Relationship & Sexual Issues**

#### **Contributions of Cognitive Behavioral Therapy to Sexual Health**

**Convenor: Renata Mello, University of North Alabama, USA, and Cognitiva Centro de Terapia, Brazil**

**Chair: Mehmet Sungur, Marmara University, Turkey**

#### **Depression, Anxiety and Sexual Dysfunction: Assessment of Distorted Cognitions**

**Rodrigo Ferreira, Mater Dei Hospital, Brazil**

Patients with depression, anxiety or sexual difficulties share similar cognitive dysfunctions. They tend to self-focus in thoughts instead of cues provided by the reality; catastrophization is a common cognitive distortion and automatic thoughts' themes typically involve loss, danger and fear of uncertainty. The difficulty to disengage from their automatic thoughts impairs their mental and sexual health and leads to further avoidance of feared situations, which increases and maintains their overall impairment. CBT helps patients detach from their thoughts during the sexual encounter, involve in the sensory aspect of it and subject distorted thoughts and core beliefs to reality-proof, preventing them to reoccur and improving overall sexual health. The comorbidity of anxiety or depression with sexual dysfunctions requires thorough cognitive conceptualization and treatment planning, which will be detailed in this presentation.

#### **Sexual-Orientation Obsessions in OCD: Differential Diagnosis and Interventions**

**Renata Mello, University of North Alabama, USA, and Cognitiva Centro de Terapia, Brazil**

The differential diagnosis is extremely important in CBT process to plan successful interventions during the treatment. However, some pathologies are not properly diagnosed, causing problems for an assertive intervention during the therapeutic process. The intention of this presentation is to show the importance of the differential diagnosis for sexual-orientation obsessions in OCD. Health professionals tend to pay more attention to the compulsive overt symptoms in OCD, like checking or washing when treating someone, but it's not uncommon to see OCD patients with other symptoms being treated only as an anxious or depressive person. Many OCD patients can show only obsessional thoughts without compulsive acts which may hinder the correct diagnosis from health professionals. The available literature about the disorder shows some intrusive forbidden or unacceptable thoughts which have as its theme: harm, aggressive or violent, religious, somatic and sexual obsession. Sexual orientation obsessions are among the most common sexual obsessions, but they are not well studied yet. These OCD patients use hyper vigilance, worrying and covert rituals that impair their lives and sexual functioning. Intrusive thoughts about sexual-orientation show a fear of having a different sexual orientation than their own or a fear of being a disclosure homosexual. Undesirable thoughts about sexual orientation are very common even in people without OCD. Renaud and Byers (1999) found this kind of thought in 50% of males and 43% of females. In people with OCD, Pinto et al (2008) had found almost 10% of sexual orientation obsession, but it could be higher because of people with this disorder avoid talking about the threatening and stigmatized issues. Forbidden thoughts cause shame on them, once they reject them and they are afraid of being rejected by others. OCD patients feel great distress with their thoughts and try to control them, trying not to think, putting more focus on them as if they were true. They start to seek evidences that confirm their aversive thoughts, trying to disconfirm the hypothesis in order to dismiss thoughts, but this thoughtful behavior promotes more distress. OCD people are perfectionist; they want to be perfect and want to be accepted by others. When they compare themselves with others they think the others are better, more handsome, or more charming than they, they believe that the thought is evidence that they are feeling something about that person. This thought rings an alert sign that evokes fear and that person starts feeling anxious as if it were an evidence that he/she was desiring someone to the contrary of his/her own sexual orientation. It is very important to signal the Cognitive Conceptualization to the use of correct techniques for intervention. The exposure-based strategies, for example, very useful in anxiety disorders are not indicated to these kinds of thoughts especially if they were pure obsessions, these strategies can confirm to them that the health professional believes that they fear are true. When the intervention is made correctly the patient shows a decrease in the scores of depression, anxiety and hopelessness.

### **Neuroscienze-Based Cognitive Therapy in Clinical Sexology**

**Tullio Scrimali, University of Catania and University Kore Enna, Italy**

Neuroscience-based cognitive therapy is a new science- and evidence-based psychotherapy approach, developed by Tullio Scrimali (Scrimali, 2012) that attempts to integrate certain psychophysiological methods such as monitoring of electrodermal activity (EDA) and skin conductance biofeedback (BFB) with selected cognitive techniques to treat mental disorders.

The presentation describes EDA as a psychophysiological parameter that can support a neurobiological approach to the integrated CBT treatment in Sexology.

### **Couple Therapy and Virtual Platforms as Sexual Health Promoters**

**Renata Moreira Coelho, Universidade Federal de Minas Gerais, Brazil**

Sexual dysfunctions tend to increase conflicts for a couple, influencing the perception of their marital satisfaction. Relationship problems between couples and dissatisfaction in marriage have been singled out as one of life's greatest stressors, leading to psychiatric, mental and physical disorders. Depressive symptoms, eating disorders, alcoholism, changes in the immune system, chronic pain and heart problems are some of the consequences cited in the literature. We know that conflicts are inherent in any relationship; however, the way conflicts are conducted is what differentiates couples, as well as regulates their levels of marital, mental, and physical health. Another variable that becomes relevant in the treatment of patients with sexual dysfunction is problem solving and communication skills. Skills such as decision making; culture of values; developments in sexual and psychological intimacy can be developed by couples in a teamwork, and favor long-term marital satisfaction. Numerous interventions have been developed over the past 50 years with the aim of preventing the suffering occasioned by dysfunctions in marital relationships. Marital psychoeducation interventions focused on training the above skills tend to prevent and alleviate the psychological distress generated by conflict. In the last decade, it has been possible to perceive an exponential increase in the use of technologies and virtual platforms, especially the internet, as a way of expanding psychological care, which is a trend. The use of Information and Communication Technologies, promotes new possibilities, transposing territorial, spatial and temporal barriers. There are several obstacles that prevent couples from seeking psychological help for their sexual dysfunctions. One way around these obstacles is to provide marital psychoeducation programs through virtual platforms. The integration between new and old technologies is desirable in economic terms and recommended from the point of view of the construction of knowledge. The internet enables a large part of the population to have access to therapeutic interventions. This symposium aims to broaden the perspectives of therapeutic possibilities for couples, aiming at removing barriers and widening the scope of interventions within cognitive behavioral approaches.

## **Symposia 18: Psychosis/Bipolar Disorders**

### **Psychological Therapies on Acute Mental Health Wards: Overcoming Challenges to Delivery**

**Convenor: Katherine Berry, University of Manchester, United Kingdom**

**Chair: Sandra Bucci, University of Manchester, United Kingdom**

**Discussant: Sandra Bucci, University of Manchester, United Kingdom**

### **Mindfulness-Based Crisis Interventions (MBCI) for Psychosis Within Acute Inpatient Psychiatric Settings: A Feasibility Randomised Controlled Trial**

**Pamela Jacobsen, University of Bath, United Kingdom**

**Emmanuelle Peters & Emily Robinson, King's College London, United Kingdom**

**Paul Chadwick, University of Bath, United Kingdom**

Brief inpatient talking therapies for psychosis could help reduce re-admission rates. The ambITION study (BrIef Talking therapies ON wards; ISRCTN37625384) was a parallel group, feasibility randomised controlled trial (RCT). Inpatients on acute psychiatric wards were eligible if they reported positive psychotic symptoms on admission. In addition to treatment as usual (TAU), participants were randomly allocated to receive either (Mindfulness-Based Crisis Intervention; MBCI) or a control intervention (Social Activity Therapy; SAT), for 1-5 sessions. The primary objective was to assess feasibility and acceptability. The secondary objective was to collect pilot outcome data on readmission rate, at 6 and 12 months (m) post discharge, and self-report symptom measures at 6m. Fifty participants were recruited (26 MBCI; 24 SAT); all received at least 1 therapy session (mean=3). Follow-up rates were 98% at 6m and 96% at 12m for service use data extracted from clinical notes, and 86% for self-report measures. At 6m follow-up, re-admission rates were similar across groups (MBCI=6, SAT=5; odds ratio=1.20, 95% CI: 0.312-4.61). At 12m follow-up, re-admissions were lower in the MBCI group (MBCI=7, SAT=11; odds ratio=0.46, 95% CI: 0.14-1.51). Three participants experienced adverse events; none was related to trial participation. Progression to a larger clinical effectiveness trial is warranted.

### **The Evaluation of Cognitive Behavioural Approaches for Suicide Delivered for Acute Inpatients: Observations and Findings from the INSITE Trial**

**Gillian Haddock, University of Manchester, United Kingdom**

Suicide is a major cause of death for people with mental health problems, and suicidal thoughts and acts are highly prevalent in people residing in acute psychiatric wards. The impact of these for patients, staff and families is immense, causing great distress, and, such problems often result in heavy use of NHS services. There is little research investigating effective psychological treatments for people who are suicidal in inpatient settings although we know that psychological therapies which specifically target suicidal behaviour can be effective. This paper describes a single blind RCT of cognitive-behavioural suicide prevention (CBSP) versus treatment as usual delivered in acute, inpatient psychiatric wards. The main objective was to explore whether CBSP was feasible to deliver and acceptable on acute inpatient psychiatric wards. Secondary objectives were to assess the impact of the intervention on suicide behaviour and ideation and functioning. Findings in relation to feasibility for staff and patients will be presented and outcomes on suicidal ideation, affect, psychological variables thought to relate to suicide and functioning will be described.

## **The Barriers and Facilitators to Delivering Evidenced-Based Therapies on Acute Mental Health Wards from the Perspectives of Patients, Families and Mental Health Staff: A Qualitative Study**

**Jessica Raphael, Greater Manchester Mental Health NHS Foundation Trust, United Kingdom**

Background: We describe a qualitative study in which we interviewed patients, carers and mental health staff about how they think we need to deliver therapy in inpatient settings.

Method: We conducted semi-structured interviews with 26 mental health staff, 24 service users and 15 carers to get their perspective on what they believed the barriers and facilitators are to delivering psychological therapy on acute mental health wards.

Results: Findings show five main themes within barriers and facilitators; institutional, patient, physical, staff, ward culture. Institutional barriers include lack of continuity, lack of finances and therefore poor resources and lack of time to engage in psychological work. Physical barriers include lack of suitable space and privacy and the location of the psychologist. Ward culture barriers include the medical/non-therapeutic models of care, focus on problem patients and lack of clarity about a psychologist's role. Similarly, institutional facilitators include staff training, and visibility and flexibility of a psychologist. Physical facilitators include a suitable space for therapy, and ward culture facilitators include psychology as a priority and a supportive ward environment.

Conclusion: We conclude by highlighting that in order to successfully introduce psychological therapy on acute mental health wards, ward staff need to understand the purpose of psychology and how it can benefit different patients. The psychologist needs to become an integrated member of the multi-disciplinary team and be a visible presence on the ward. Strong leadership is required on wards in order to facilitate staff to dedicate time to develop their skills and work with patients in a therapeutic way.

## **Implementing Inpatient Psychology Services in Acute Mental Health Settings: A Pilot Study and Protocol for a Future Randomised Controlled Trial**

**Katherine Berry, University of Manchester, United Kingdom**

Background: The final paper of this symposium builds on the work presented in the previous talks. We describe an implementation study which aims to deliver and evaluate psychological therapies in real world settings by specifically overcoming previously identified barriers and facilitators to delivery.

Method: Two acute inpatient wards were recruited and a psychologist was based on each ward for 2.5 days per week with the aim of delivering a stepped model of care, including one-to-one therapy, supervision of nursing staff to deliver structured psychological interventions and team formulations. We monitored the delivery of therapy using structured checklists and evaluated the impact via patient and staff outcome measures and semi-structured interviews.

Results: Findings will be reported in relation to staff and patient uptake to the study and the extent of the delivery of the model as intended. We will also report changes in outcome measures and themes from qualitative interviews.

Conclusion: We conclude by outlining the protocol for a multi-centre randomised control trial, where 324 patients on 34 wards across the UK will be allocated to receive either access to talking therapies plus treatment as usual, or treatment as usual only. The wards in each arm of the trial will be compared at 6 and 9 months in terms of patient, staff and ward outcomes.

## **Using Trauma-Focused Therapies to Treat Posttraumatic Symptoms in Psychosis: What Works, When, and for Whom?**

**Convenor: Rachel Brand, Swinburne University of Technology, Australia**

**Chair: Sarah Bendall, Orygen, the National Centre of Excellence in Youth Mental Health and University of Melbourne, Australia**

## **A Pilot Trial of Imaginal Exposure Therapy for People with Trauma-Related Voices: Results, Lessons Learnt, and Questions to Inform the Development of TF Therapies for Psychosis**

**Rachel Brand, Swinburne University of Technology, Australia**

**Sarah Bendall, Orygen: The National Centre of Excellence in Youth Mental Health, Australia**

**Amy Hardy, Institute of Psychiatry, King's College London, United Kingdom**

**Susan Rossell & Neil Thomas, Swinburne University of Technology, Australia**

Many people who hear voices (also termed auditory-verbal hallucinations) have experienced traumatic or adverse life events. There is growing evidence that, for a number of people, these events play a role in the genesis and maintenance of voice-hearing. Psychological mechanisms implicated in the trauma-voice-hearing relationship overlap with those involved in posttraumatic stress disorder (PTSD), giving a strong rationale for the use of trauma-focussed therapies for trauma-related voice-hearing. In this pilot trial we aimed to examine the feasibility, acceptability, and potential effectiveness of an exposure-based trauma-focussed therapy component, imaginal exposure, for people with trauma-related voice-hearing. Participants were a transdiagnostic sample of fifteen people. All participants had current distressing voices, had experienced traumatic life events that they believed were linked to their voices, and were interested in undertaking a trauma-focussed therapy. The intervention involved six 90-minute sessions, using the imaginal exposure components of the prolonged exposure treatment protocol. An independent assessor conducted assessments at post treatment and one-month follow up. The primary outcomes of interest were feasibility and acceptability. Feasibility was assessed through uptake and retention rates, and acceptability through a satisfaction survey. The primary effectiveness outcome was voice-hearing severity. The severity of PTSD symptoms, the nature of the trauma memory, and posttraumatic cognitions were also assessed as secondary effectiveness outcomes and process measures. Group level analysis of the effectiveness outcomes showed positive effects on voice-hearing severity, the severity of PTSD symptoms, the nature of the trauma memory, and posttraumatic cognitions at post treatment and follow-up. Despite these positive findings for the potential effectiveness of the intervention, we identified some issues with feasibility and acceptability. Recruitment into the trial was slow, with very few referrals coming from mental health clinicians and low uptake from participants screened for inclusion. While participants who completed the therapy were generally satisfied, only 11 of the 15 participants completed therapy and those who dropped out reported that the therapy protocol was not acceptable for them. These findings suggest that standard protocol, exposure based trauma-focussed therapies are potentially effective in treating trauma-related voices, but there are feasibility and acceptability issues that need consideration. In addition to these main findings, we observed that temporary symptom exacerbation of both voices and PTSD symptoms prior to symptom improvement was common. We also note that improvement in symptoms was variable, with some people experiencing large improvements (including total remission of voices), and others little to no improvement. We believe there are three key questions arising from this research that will be important to inform future clinical practice; namely, which trauma-focussed therapy techniques and protocols are most helpful for people experiencing psychosis,

who is most likely to benefit from exposure-based trauma-focussed therapy, and when is it optimal and safe to undertake exposure-based trauma-focussed therapies with people experiencing psychosis?

### **An Integrated Trauma-Focused Cognitive Therapy Protocol for Posttraumatic Stress and Psychotic Symptoms: Findings from a Case Series**

**Nadine Keen, The Institute of Psychiatry South London and Maudsley NHS Trust, United Kingdom**

**Emmanuelle Peters, King's College London, United Kingdom**

**Elaine Hunter, South London and Maudsley NHS Foundation Trust, United Kingdom**

Despite high rates of trauma in individuals with psychosis, in clinical practice post-traumatic stress symptoms are frequently overlooked in such clients. There has also been reluctance to treat post-traumatic symptoms in psychosis, in case the therapeutic procedure of exposure to the trauma memories exacerbates psychotic symptoms. Recent evidence demonstrates that it can be safe to use exposure-based methods in this population. Nevertheless, most published studies have been based on treating post-traumatic symptoms in isolation from psychotic symptoms. The aims of the current case series were to assess the acceptability, feasibility and preliminary effectiveness of integrating cognitive-behavioural approaches for post-traumatic stress disorder and psychosis into a single protocol. Nine participants were recruited from a specialist psychological therapies service for psychosis. Participants were consecutive referrals reporting distressing psychotic and post-traumatic symptoms. Clients were assessed at five time points (baseline, pre-, mid, end of therapy and at 6+ months follow-up) by an independent assessor on measures of current symptoms of psychosis, post-traumatic stress, emotional problems and well-being. Therapy was formulation-based and individualised, depending on presenting symptoms and trauma type. It consisted of five broad, flexible phases, and included exposure-based methods (imaginal reliving and/or rescripting). The intervention was well received by participants with positive post-therapy feedback and satisfaction ratings. Unusually for this population, no-one dropped out of therapy. Reliable improvements were found between pre- and post-therapy in post-traumatic symptoms (63%), voices (25%), delusions (50%), depression (50%), anxiety (36%) and well-being (40%). Eighty-eight per cent achieved reliable improvements on at least one outcome, and 75% on at least two symptom measures, post therapy. Seventy-eight percent (n=7) completed a follow-up assessment, 86% (n=6) of whom maintained at least one reliable improvement at follow-up. Rates of improvements following therapy were over twice those found during the waiting list period. No participant indicated a reliable worsening of any symptoms during or after therapy. The study shows that an integrative therapy incorporating exposure-based methods was an acceptable and feasible intervention for this small sample, with promising effectiveness. A randomised controlled trial is warranted to test the efficacy of the intervention for this population.

### **Can We Improve Psychotic Symptoms Using Trauma-Focused Therapy? Rationale and Design of a Feasibility Randomised Controlled Trial of a Modified Version of Eye Movement Desensitization and Reprocessing Therapy for Clients with Early Psychosis**

**Filippo Varese, The University of Manchester and Greater Manchester Mental Health NHS Foundation Trust, United Kingdom**

**Richard Bentall, University of Sheffield, United Kingdom**

**Bill Sellwood, Lancaster University, United Kingdom**

**David Keane, Debra Malkin, Gita Bhutani & Robin Logie, Lancashire Care NHS Foundation Trust, United Kingdom**

**Yvonne Awenat, University of Manchester, United Kingdom**

Psychosis is a major cause of suffering and disability worldwide. Traumatic experiences (e.g., exposure to sexual, physical or emotional abuse) are common in people with psychosis. Meta-analytic evidence has suggested that exposure to traumatic life experiences increases the risk of developing psychosis later in life, and people with a history of complex traumatic life events generally suffer from more intense and distressing psychotic symptoms. Levels of exposure are particularly dramatic in the case of people with first episode psychosis, as they do not only might have premorbid traumatic exposures but are also vulnerable to experiencing trauma as a direct result of their condition (e.g. the experience of distressing, uncontrollable symptoms) or the treatment they receive (e.g. coercive hospitalizations). In recent years, a growing number of clinical studies have examined the efficacy of trauma-focused interventions, including Eye Movement Desensitisation and Reprocessing (EMDR) in people with psychosis with a history of trauma. These approaches have largely focused on treating comorbid post-traumatic stress, but it is still unclear whether trauma-focused therapy could represent a promising treatment option for the direct amelioration of psychotic symptoms that might be, in some cases, brought about or exacerbated by traumatic experiences.

This presentation will outline the clinical and research protocol of an ongoing feasibility trial being conducted in the UK to evaluate whether a version of Eye Movement Desensitisation and Reprocessing (EMDR) adapted to specifically target presenting difficulties of people with first episode psychosis. The clinical protocol evaluated in this trial (developed by clinicians working in the National Health Service in Lancashire, UK) is consistent with the standard EMDR protocol for post-traumatic stress, but the focus of certain EMDR phases has been modified and expanded to account for a broad range of issues related to the experience of psychotic symptoms and their impact on the client's well-being (e.g. work on traumatic experiences that precipitated the onset psychotic symptoms but do not necessarily meet thresholds for PTSD; a more explicit focus on grounding and stabilisation techniques to enable successful reprocessing of traumatic memories even in the case of patients suffering from heightened dissociative experiences, a common presentation in people with trauma and psychosis). This protocol will be evaluated in a randomised controlled trial design with 60 people who have a history of trauma and who have developed psychosis for the first time within the previous three years, with the view of informing a future large scale evaluation of this treatment approach. Participants will be randomised to either receiving 16 sessions of EMDR in addition to their usual care, or their usual care only, and they will be interviewed multiple times about their symptoms and treatment experiences over a 12-month period.

### **What Do the Experiences of Therapy of Young People with Early Psychosis and PTSD Symptoms Tell us About the Risks and Benefits of Trauma Therapy?**

**Sarah Bendall, Orygen, the National Centre of Excellence in Youth Mental Health and the University of Melbourne, Australia**

**Janet Tong & Katrina Simpson, Monash University, Australia**

**Mario Alvarez-Jiminez & Eoin Killackey, Orygen, The National Centre of Excellence in Youth Mental Health, Australia**

**Henry Jackson, University of Melbourne, Australia**

Of young people with first episode psychosis (FEP), over half report exposure to childhood trauma and consequent co-morbid post-traumatic stress disorder (PTSD) or symptoms. Currently no evidence-based interventions exist for PTSD in FEP. Clinicians report concerns that trauma-focused interventions with young people with FEP could result in distress and symptom exacerbation. We developed a trauma intervention to be used within case management for young people with FEP and PTSD symptoms: Trauma-Informed Psychotherapy for



Psychosis (TRIPP). TRIPP was developed using principles of trauma-informed care, operationalizes guidelines for addressing trauma in FEP, and provides a flexible, evidence-based intervention strategy. TRIPP entails four modules: (1) Safety, which consists of skills development for noticing and communicating in-the moment distress levels; utilization of distress-coping strategies; safety planning and monitoring; (2) Psychoeducation regarding trauma, PTSD and dissociative symptoms; (3) Timeline/assessment, which is a comprehensive assessment of trauma exposure, PTSD, dissociative, psychotic and other symptoms, on a written timeline. While not designed as exposure treatment, it may be that comprehensive assessment of trauma can act as a form of covert exposure; and (4) Collaborative formulation of the relationship between trauma and symptoms. The aim of the study was to understand young people's reactions to TRIPP both in terms of symptom exacerbation within treatment and outcome. The study took a mixed-methods approach. Semi-structured interviews were conducted with eight participants (age 18–27 years) with co-morbid PTSD and FEP, after completing TRIPP. Transcripts were analysed using interpretative phenomenological analysis (IPA). Participants' baseline and end-of-treatment PTSD and psychotic symptoms were assessed.

**Results:** Three themes related to participants' reactions were identified in the IPA analysis: (1) distress in session; (2) feeling relieved in and out of session; and (3) symptom exacerbation out of session. All but one participant reported experiencing increased distress in session. Four participants described PTSD, psychotic symptoms and/or suicidal ideation worsening in immediate reaction to talking about trauma. All but one participant showed improvement in their PTSD and psychotic symptoms at the end of treatment. All participants described the intervention as beneficial and worthwhile.

**Conclusions:** Results suggest that feelings of distress, psychotic, suicidal and PTSD symptom exacerbation do occur when trauma is addressed in FEP treatment. This can occur even when the treatment has been carefully designed to reduce re-traumatization, a key principle of trauma-informed care. However, young people reported the treatment was worthwhile despite experiencing symptom exacerbation and PTSD symptoms reduced for most young people. This suggests that a less intense dose than standard exposure-based treatments for PTSD may be sufficient for those with FEP. It also raises questions as to whether standard exposure-based treatments for PTSD, without preparation, may lead to unacceptably high levels of symptom exacerbation in those with FEP. More research is needed into the design of interventions to address trauma that will maximize the benefits and minimize the risks of treatment of people with trauma and FEP.

## **Understanding Psychological Mechanisms of Paranoia**

**Convenor: Lyn Ellett, Royal Holloway, University of London, United Kingdom**

**Chair: Lyn Ellett, Royal Holloway, University of London, United Kingdom**

### **The Role of Interpersonal Processes in Moderating Paranoia: Findings from Two Analogue Studies**

**Katherine Berry, University of Manchester, United Kingdom**

**Lyn Ellett, Royal Holloway, University of London, United Kingdom**

**Sandra Bucci, Jane Hutton & Rebecca Butler, University of Manchester, United Kingdom**

Paranoid thinking is a key feature of psychosis and underpins how we think about and behave towards other people. As such interpersonal processes are likely to be important in understanding the development and maintenance of paranoia. Attachment and Expressed Emotion are interpersonal theories that have been implicated in psychosis. In this paper we present data to explore how attachment and Expressed Emotion (e.g. criticism and warm) moderate levels of paranoia using paranoia induction paradigms. We report on two independent studies both using non-clinical samples and experimental designs. In study one, sixty participants were randomly allocated to one of three conditions; a secure attachment priming condition, a positive affect condition or a neutral control condition prior to completing a paranoia induction. Contrary to predictions, the secure attachment prime did not appear to buffer paranoid thinking and had a negative impact for participants with high levels of attachment anxiety, highlighting the potentially aversive effects of exposure to secure attachment material in therapy in those with existing insecure attachment styles. In study two, ninety seven participants were randomly allocated to criticism, warm comments, or neutral comments conditions prior to a paranoia induction. As predicted, paranoia levels increased following exposure to criticism highlighting the importance of this mechanism in explaining paranoia. However, paranoia was not significantly lower following exposure to warm comments. This finding suggests that warm comments alone may not provide protection against the effects of negative interpersonal stressors and thus the need to balance therapeutic warmth with amelioration of social stressors in paranoia.

### **Attachment Theory as a Means of Enriching CBT for Psychosis**

**Katherine Newman-Taylor, University of Southampton, United Kingdom**

Attachment theory assumes that the development of bonds in early life influences our ability to form trusting and secure relationships in adulthood. Arguably, psychosis is an inherently interpersonal set of experiences – paranoia is characterised by threat beliefs, and voices are by definition experienced as 'other.' We know that people with psychosis are more likely to report early adversity, often struggle to maintain stable adult relationships, and can find it hard to engage therapeutically. Attachment theory may help us make sense of psychosis in a developmental context, and target interpersonal beliefs and behaviours that maintain distress. In a series of preliminary experimental studies, we have examined the impact of attachment-based imagery in people with high levels of non-clinical and clinical paranoia. These studies indicate that priming secure attachment can reduce paranoia and anxiety, and that insecure attachment imagery can have the opposite effect. These studies are limited in terms of follow-up data. Nevertheless, the results are promising and provide a reasonable basis for suggesting that attachment theory and linked paradigms could enrich CBT for people with distressing psychosis.

### **What Came First, Negative Emotions or Paranoia? On the Trail of the "Chicken and Egg" Problem**

**Katarina Krkovic, Annika Clamor & Tania Lincoln, University of Hamburg, Germany**

Paranoid experiences are undoubtedly a highly emotional phenomenon. Moreover, recent models of psychosis include negative emotions such as sadness and anxiety not only as predecessors but also as consequences of paranoia. Although a large body of empirical research supports the notion of an association between emotions and paranoia, the evidence on temporality of this association is still limited. In three different experience sampling studies we focused on investigating which emotions precede, accompany and follow the experience of paranoia in daily life. We investigated this research question in a healthy sample (study 1), in non-clinical individuals with attenuated psychotic symptoms (study 2), and in individuals diagnosed with a psychotic disorder (study 3). The hierarchical data was analyzed by applying linear mixed models with (a) discrete emotions (anger, anxiety, sadness, guilt) at one time-point predicting paranoia at the following time-point; (b) discrete emotions predicting paranoia at the same time-point; and (c) paranoia at one time-point predicting discrete emotions at the following time-point. Results of the three studies confirmed particularly anxiety and sadness to act as predecessors of

paranoia. Moreover, in all three studies, paranoid experiences were accompanied by a diffuse negative affective state. Finally, whereas in non-clinical samples paranoid experiences were predictive of several negative emotions, in individuals with psychosis, paranoia was only predictive of subsequent anger. These findings provide a solid foundation for the translation into practice by informing us which emotions are involved in the formation of paranoia, which accompany the paranoid experience, and which emotions emerge as its consequence. Finally, the findings offer new insights on the continuum of psychosis and how emotional processes related to paranoia differ along the continuum, indicating that emotion-focused interventions should be tailored depending on the severity of symptoms.

### **Daily Relationship Between Social Exclusion and Paranoia**

**Edo Jaya, University of Indonesia, Indonesia**

Previous experience sampling studies investigating the psychological mechanisms of paranoia provide us with information regarding risk factors and mechanisms that predict paranoia. However, few studies focus on investigating the time by which these risk factors and mechanisms take effect. Without understanding the correct time frame of the relationship, experience sampling and longitudinal studies may use incorrect time frame leading to type II errors. We investigate this research gap in our longitudinal study measuring various social factors, common mental disorders, negative schemas, and psychotic symptoms, including paranoia. In this presentation, we show the results of our pilot data analysis on the cross-sectional and daily relationship between social exclusion and paranoia.

We recruited 1775 adults of whom 495 (128 male; age,  $M = 21.9$ ,  $SD = 5.1$ ) completed the baseline survey. Fourteen participants reported being diagnosed with schizophrenia. Paranoia was assessed using the frequency scale of the paranoid dimension in the Indonesian version of the Community Assessment of Psychic Experiences. Social exclusion experience was assessed using the Ostracism Experiences Scale. After completing the baseline survey, all participants were invited to complete seven daily surveys. The baseline and daily version of the survey used a timeframe of lifetime and daily experience, respectively. Multilevel modeling using the lme4 package in R was used.

In the preliminary analysis, we examined the lasting effects of paranoia in days. Paranoia frequency in a day significantly predicted daily paranoia frequency up to the next three days (day 1,  $t(90.27) = 6.66$ ,  $p < 0.001$ ,  $d = 1.40$ ; day 2,  $t(88.52) = 4.39$ ,  $p < 0.001$ ,  $d = 0.93$ ; day 3,  $t(61.23) = 3.03$ ,  $d = 0.77$ ,  $p = 0.004$ ). The effect size of the impact of paranoia frequency in a day decreases day-after-day, and the statistical significance of paranoia frequency in day 1 predicting for paranoia frequency on day 4 to 6 is inconsistent. We then examined whether daily social exclusion can predict daily paranoia, or rather the other way around. We found that social exclusion experience predicted daily paranoia controlling for previous daily paranoia only up to the next day (day 1, social exclusion,  $t(34.63) = 2.31$ ,  $p = 0.027$ ,  $d = 0.79$ , previous day paranoia,  $t(98.59) = 3.79$ ,  $p < 0.001$ ,  $d = 0.76$ ). There was no evidence of the reverse relationship of paranoia predicting social exclusion in the next day(s).

The results indicate that the occurrence of paranoid thoughts on a given day may have an impact on levels of paranoid thoughts on up to the third day. In addition, being socially excluded may have an impact on paranoid thoughts, but only up to one day after the exclusion occurs. We found no evidence of the reverse direction of paranoia leading to social exclusion. Possible clinical implications of these findings are that therapists seeing patients with paranoid symptoms should be aware of their social environment and change it if necessary. Furthermore, the lack of reverse causation implies that therapists need not worry that the paranoid thoughts of the patients lead to social exclusion.

### **Mindfulness for Psychosis; Challenges and Developments in the Field**

**Convenor: Pamela Jacobsen, University of Bath, United Kingdom**

**Chair: Pamela Jacobsen, University of Bath, United Kingdom**

#### **Mindfulness for Psychosis: A Humanising Therapeutic Process**

**Paul Chadwick, University of Bath, United Kingdom**

Mindfulness for psychosis has been slow to develop, in part because of the fear and stigma that surrounds psychosis. Breakthrough research showing how to adapt mindfulness groups for people with current distressing psychosis has led to a growing research base and it is now clear that adapted mindfulness for psychosis is both safe and therapeutic. However, how it works is less clear. This article argues that at its heart is a core humanising therapeutic process, characterised by key metacognitive insights and increased acceptance both of psychotic experience and the self. This core therapeutic process is underpinned not only by commitment to mindfulness practice, but also through active, constructive engagement with the group process. Individuals discover that they are more than the psychosis, and that the self is balanced (positive and negative) and changing. It is recommended that future research explores these intra- and inter-personal therapeutic processes alongside outcome trials.

#### **Is Mindfulness for Psychosis Harmful?**

**Pamela Jacobsen, University of Bath, United Kingdom**

A cornerstone of evidence-based healthcare is that prescribed treatments are both safe and effective. For psychological therapies, as for medicines, this is assessed via a careful process of small scale pilot studies, with later progression to larger randomised controlled trials. Once a therapy is recommended for routine implementation in the UK National Health Service (NHS), safety continues to be monitored by clinicians who deliver the therapies and the care teams of the service users. Whilst robust mechanisms are in place for reporting potential side effects, or adverse reactions, to medicines via the 'yellow card' scheme, no similar scheme exists for psychological therapies. However, there has been recent interest in documenting and understanding more clearly potential harms which may arise from psychological therapies (e.g. Curran et al. 2019). Harm is difficult to define in relation to psychological therapies. Short-term difficulties, or challenging experiences, are part of natural and necessary therapeutic processes, and must be distinguished from longer-term negative effects. For example, Duggan et al. (2014) define harm as "a sustained deterioration that is caused directly by the psychological intervention."

In a recent review of reported harms in mindfulness-based programs by Baer et al. (2019), the authors conclude that mindfulness practice can be "unpleasant and challenging without causing harm". Mindfulness practice involves opening to whatever is currently present, and practising deliberately turning towards aversive experiences which may arise from moment to moment. This is undoubtedly difficult, as being human is difficult; our painful thoughts, emotions, and bodily sensations frequently challenge us and bring suffering. Mindfulness-based programs have perhaps proliferated in popularity so widely in recent years given their focus on accepting the universality of suffering, and the desire to alleviate it by coming into a different relationship with our difficult experiences.

Is psychosis a special case though? Although concerns about mindfulness not being 'safe' for psychosis have persisted over recent years, their basis is not grounded in the clinical literature. Rather, these concerns seem to stem from the same beliefs that blocked people with psychosis from having access to cognitive-behavioural therapies for many years; that psychotic experiences are somehow, as Jaspers put it "unverständlich" or un-understandable. If however, we follow cognitive models of psychotic symptoms including voices or delusions (e.g.

Garety et al, 2001; Morrison, 2001), we must come to the conclusion that these experiences, which may be distressing and impairing for people at time, are part of human experience nonetheless. This means that the same mindfulness skills can be applied in responding to a distressing voice, just as in responding to an anxious thought, or a physical pain. Finally, the provision of safe and effective mindfulness-based programs for psychosis depends upon delivery according to good practice guidelines. This includes specific adaptations to account for the particular vulnerabilities of the population (e.g. shorter practices, with more frequent guidance), and delivery by therapists with appropriate training and competencies.

### **Group Mindfulness-Based Therapy for Persecutory Delusions: A Pilot Randomised Controlled Trial**

**Lyn Ellett, Royal Holloway, University of London, United Kingdom**

**Paul Chadwick, University of Bath, United Kingdom**

**Christos Koutsimidis, Surrey & Borders NHS Foundation Trust, United Kingdom**

**Jessica Kingston, Royal Holloway, University of London, United Kingdom**

**Jeewaka Mendis, University of Surrey, United Kingdom**

**Eryna Tarrant, Surrey & Borders NHS Foundation Trust, United Kingdom**

Experts recognise the need to improve psychological therapies for individuals with persecutory delusions. Research has yet to assess the feasibility, acceptability and potential benefits of group mindfulness-based therapy for persecutory delusions. The aim of the study was to assess the feasibility and acceptability of mindfulness groups for people with persecutory delusions, and to generate indicative effect sizes on key clinical outcomes. These objectives together clarify the need for a fully-powered RCT. The design was a single-centre pilot RCT, in which 27 people with persecutory delusions were randomised to receive either group mindfulness based therapy (12 sessions) alongside treatment as usual (N=14) or treatment as usual alone (N=13). Participants completed measures of depression, delusional distress, mindfulness, worry and rumination at baseline and post intervention. Data on feasibility (study retention rate and data completeness) and acceptability (therapy attendance and satisfaction) will be presented, as well as descriptive statistics on the key clinical outcomes. Overall, the data suggest that a fully powered RCT is now warranted.

### **Mindfulness for Psychosis; Challenges and Developments in the Field**

**Kerem Böge & Eric Hahn, Charité Universitätsmedizin Berlin, Germany**

In recent years, a growing number of mindfulness-based interventions, such as mindfulness-based cognitive therapy, person-centered therapy and acceptance- and commitment therapy have been used in the treatment of individuals with schizophrenia spectrum disorders (SDS). A minor number of randomized controlled trials (RCTs), primarily in English-speaking countries such as the UK, USA, and Australia, have shown the effectiveness of mindfulness in regards to positive- and negative symptoms, depressive and anxiety symptoms as well as reduced rehospitalization rates and overall positive well-being. Nonetheless, until today, to the best of the author's knowledge and the currently available literature, no studies have reported exploring and developing mindfulness-based therapy for SDS in the German language. Our presentation aims at demonstrating the research processes of the past two years in which the first mindfulness-based group therapy (MBGT) for in- and outpatients with SDS was developed and implemented in inpatient care in Germany and is currently being investigated within a large-scale RCT (SENSE - study).

A mixed-method approach was employed using both qualitative and quantitative data analysis. In the first step, 30 semi-structured interviews were conducted in order to gain an in-depth understanding of the therapeutic actions, processes and underlying mechanisms of mindfulness. Based on the results a 200-page, four-week manual running three sessions per week was developed. Furthermore, a novel measurement tool, the Southampton Mindfulness Questionnaires (SMQ), was validated in German to measure mindfulness through quantitative data in this specific cohort. Finally, a large RCT for inpatients with SDS was launched in July 2018 involving mindfulness, clinical- and process outcomes, as well as iPad-based cognitive measures (CANTAB).

Results of the qualitative interviews, the most important parts of the manual, as well as the validation of the SMQ will be presented. Furthermore, pilot results of the ongoing RCT will be also be discussed. Finally, the challenges, strengths, and limitations of the research processes in SENSE project will be shared, while we elaborate on future directionson.

### **Using Imagery when Working with Psychosis: Recent Developments and Case Examples**

**Convenor: Christopher Taylor, Pennine Care NHS Foundation Trust and The University of Manchester, United Kingdom**

**Chair: Christopher Taylor, Pennine Care NHS Foundation Trust and The University of Manchester, United Kingdom**

### **Imagery Rescripting and Psychosis**

**Craig Steel, University of Oxford, United Kingdom**

An update and overview of recent work in which using imagery has been integrated with working with psychosis will be presented. Issues related to the use of imagery rescripting with people suffering from psychotic symptoms are discussed and a recently completed case series adopting the approach to working with trauma within people who hear distressing voices will be presented.

### **iMAPery Focused Therapy for Persecutory Delusions in PSychosis (iMAPS): A Case Series**

**Christopher Taylor, Pennine Care NHS Foundation Trust and The University of Manchester, United Kingdom**

Background: Many people with psychosis experience persecutory delusions and report negative schematic beliefs and intrusive mental images which may be maintaining factors for psychotic symptoms. This study aimed to examine the feasibility and acceptability of a new psychological therapy targeting schemas and images (iMAPS therapy). Methods: Participants with first episode psychosis were randomised using a multiple baseline design with 2-5 assessments. An average of six sessions of therapy, comprising a combination of imagery techniques and imagery rescripting techniques were used. In each session, participants completed a Mental Imagery in Psychosis Questionnaire (MIPQ). Delusional beliefs (PSYRATS) were also measured sessionally. Results: Five participants with first episode psychosis completed the baseline visits and attended all therapy sessions. One participant declined the final assessment. Results demonstrated significant improvements in negative schematic beliefs, delusions, characteristics of images, and other measures of schema. Discussion: Although multiple baseline randomisation strengthens the study, it lacked a control arm and blind assessments. Conclusions: iMAPS appears a feasible and acceptable treatment for psychosis and further evaluation is indicated. Funding: UK National Institute for Health Research Fellowships Award (DRF-2012-05-211)

### **Attachment Imagery as a Means of Facilitating CBT and IR in Psychosis: An Illustrative Case Example**

**Katherine Newman-Taylor, University of Southampton and Southern Health NHS Foundation Trust, United Kingdom**

Many people with psychosis report serious adversity in childhood. Attachment theory assumes that early patterns of interaction influence our ability to manage internal experience, and form secure relationships in adulthood. This is not inconsistent with CBT formulations of psychosis, which emphasise the role of formative experience in the development of beliefs about self and others, and linked affect and behaviour. Kip presented with derogatory voices, paranoia and emotional dysregulation, following a complex trauma history. Having learnt skills to manage her emotions more effectively, she sought help for her voices, paranoia and trauma symptoms. The principles of attachment theory informed our CBT formulation and highlighted key areas to target in therapy. Towards the end of this work, a number of persistent flashbacks remained highly distressing. These bore clear resemblances to her voices. To enable Kip to engage in exposure and reliving of these memories, we drew on an attachment-based means of facilitating 'felt security.' This involved recalling a secure relationship, and holding the associated self-image vividly in mind to increase her sense of interpersonal safety. Used before and after reliving sessions, this allowed Kip to tackle her remaining intrusions without becoming overwhelmed. Attachment theory may enrich our understanding of distressing psychosis, and shape therapeutic interventions.

### **The Digital Therapy Room: mHealth Applications for Psychosis**

**Convenor: Alissa von Malachowski, Hamburg University, Germany**

**Chair: Tania Lincoln, Hamburg University, Germany**

**Discussant: Tania Lincoln, Hamburg University, Germany**

### **Actissist: A Theory-Informed App for Early Psychosis**

**Sandra Bucci, Matthew Machin, John Ainsworth, Shon Lewis, Richard Emsley, Katherine Berry, Dawn Edge & Gillian Haddock, University of Manchester, United Kingdom**

Background: Timely access to intervention for psychosis is crucial yet problematic. As such, healthcare providers are forming digital strategies for addressing mental health challenges. A theory-driven digital intervention that monitors distressing experiences and provides real-time active management strategies in the early phase of psychosis could improve the speed and quality of recovery in psychosis, over and above conventional treatments. The presenter will report on the feasibility and acceptability of Actissist, a digital health intervention grounded in the cognitive model of psychosis that targets key early psychosis domains.

Methods: A proof-of-concept, single, blind, randomised controlled trial of Actissist, compared to an active symptom-monitoring control condition, ClinTouch ontop of treatment as usual. Thirty-six early psychosis patients were randomised on a 2:1 ratio to each arm of the trial. Actissist was delivered via a smartphone app over 12-weeks; clinical and functional assessment time-points were baseline, post-treatment and 22-weeks. Assessors' blind to treatment condition carried out assessments. Acceptability was examined using qualitative methods.

Results: Actissist was feasible (75% participants used Actissist at least once/day; uptake was high, 97% participants remained in the trial; high follow-up rates), acceptable (90% participants recommend Actissist) and safe (0 serious adverse events), with high levels of user satisfaction. Treatment effects were large on negative symptoms, general psychotic symptoms and mood. The addition of Actissist conferred benefit at post-treatment assessment over routine symptom-monitoring and treatment as usual.

Conclusions: This is the first controlled proof-of-concept trial of a theory-driven digital health intervention for early psychosis. Actissist is feasible and acceptable to early psychosis patients, with a strong signal for treatment efficacy. We are in the middle of conducting a powered efficacy trial - the design of this efficacy study will be reported in this talk. Furthermore, implications for future digital health trials will also be discussed.

### **IMProving Availability & Cost-Effectiveness of Mental Healthcare for Schizophrenia Through mHealth (IMPACHS) - Results from a Multi-Site Feasibility Study Integrating a Mobile Application into Face-to-Face Therapy**

**Alissa von Malachowski & Björn Schlier, Universität Hamburg, Germany**

**Anna J. Frosig, Psychiatric Research Unit, Psychiatry Zealand, Denmark**

**Hartwig Holzapfel, Time4You GmbH, Germany**

**Mads Frost, Monsenso ApS, Denmark**

**Erik Simonsen, Psychiatric Research Unit, Psychiatry Zealand, Denmark**

**Tania Lincoln, Universität Hamburg, Germany**

Context: IMPACHS is a multi-site feasibility study investigating the perceived usefulness of the integration of a theory-driven digital solution into face-to-face cognitive behavioural treatment for psychosis.

Design: All participating service users had a diagnosis within the schizophrenia spectrum (n=24) and were recruited from two clinical sites in Denmark and Germany where they were receiving outpatient treatment. The solution consisted of a Smartphone App for patients and a clinician Web portal which participants accessed as part of standard treatment for a maximum period of 6 months. Quantitative data on symptoms, functioning and personal recovery measures were collected pre and post intervention. Service users completed the User Mobile

Application Rating Scale (uMARS) upon study completion and a subset of service users participated in qualitative interviews to capture perspectives on the integration of m-health solutions into a therapeutic intervention for psychosis. Service providers completed a quantitative exit questionnaire and a qualitative semi-structured interview.

**Intervention:** The solution is based on state-of-the-art cognitive behavioural therapy for psychosis and consists of self-monitoring/feedback functions along with e-learning modules that included psychoeducation, interactive exercises, and strategies targeting a range of symptoms of psychosis (e.g., delusions, hallucinations, self-esteem, behavioural activation, emotion regulation, sleep, medication, physical health). Modules were selected on a case-by-case basis in collaboration with the respective clinician.

**Results:** Preliminary analysis from the interviews indicated that service users and clinicians were positive towards the integration of the mobile solution into treatment. Key themes from interviews included the App facilitating access to information and strategies outside of the clinical setting and the use of self-monitoring data to inform clinical interventions. Accessing self-monitoring functions and modules greatly varied as a function of symptom severity and focus in treatment.

**Discussion:** Qualitative factors that facilitated and hindered engagement and use of the app will be discussed. Challenges in implementation from the patients' and clinicians' perspectives along with organizational factors in different clinical settings will also be reviewed.

**Conclusion:** The integration of an m-health solution to supplement cognitive behavioural interventions for psychosis appears feasible.

Knowledge generated in this study can be used to design future randomized control trials to evaluate the effectiveness of various elements of such digital solutions and their potential to promote recovery.

### **Early Signs Monitoring to Prevent Relapse in Psychosis and Promote Wellbeing, Engagement and Recovery (EMPOWER): A Pilot Cluster Randomised Controlled Trial in Two Countries**

**Andrew Gumley & Simon Bradstreet,, University of Glasgow, United Kingdom**

**John Farhall, La Trobe University, Australia**

**Emma Morton, Australian Catholic University, Australia**

**Stephanie Allan, University of Glasgow, United Kingdom**

**Matthew Machin, University of Manchester, United Kingdom**

**John Gleeson, Australian Catholic University, Australia**

**Context.** EMPOWER is investigating digital technology to prevent relapse amongst people with a diagnosis of Schizophrenia in the United Kingdom and Australia (ISRCTN99559262), which is based on our Cognitive-Interpersonal model of relapse and recovery.

**Methods.** EMPOWER is a multicentre, two arm, parallel groups cluster RCT involving eight purposively selected community mental health services (CMHS) with 12-month follow-up. The CMHS are the unit of randomisation, with the intervention delivered by the teams to individual service users and with outcomes assessed within these clusters. Eligible service users are adults in contact with CMHS who have either been admitted to a psychiatric in-patient service or received crisis intervention at least once in the previous two years for relapse of psychosis and have a DSM-5 diagnosis of a Schizophrenia-related disorder.

**Intervention.** EMPOWER is a digital complex Just In Time Adaptive Intervention (JITAI), which involves three levels of stepped care: (i) a Mobile App based wellbeing monitoring, (ii) self-management support delivered through the Mobile App and Peer Support Workers, and (iii) activation of a relapse prevention pathway into local CMHS. Participants have access to the EMPOWER App for the full 12-months of the study.

**Results.** Recruitment to the study has closed and 12-month follow-ups will be completed in June 2019. A number of important complexities in the development of trials to evaluate complex digital interventions are discussed including the challenges of recruitment and follow-up, the implementation of the EMPOWER intervention, and the assessment of outcomes including feasibility, acceptability, usability, and safety.

**Conclusions.** Implications for the design and conduct of a definitive international cRCT will be discussed including our theoretical understanding of the cognitive-interpersonal mechanisms of relapse and recovery.

## **Symposia 19: Trauma**

### **Multiple Loss and Persistent Complex Bereavement Disorder (PCBD): Interdisciplinary Models and Their Treatment**

**Convenor: Jos de Keijser, University of Groningen, the Netherlands**

**Chair: Jos de Keijser, University of Groningen, the Netherlands**

**Discussant: Angela Nickerson, University of New South Wales, Australia**

### **Multiple Loss and Persistent Complex Bereavement Disorder (PCBD): Interdisciplinary Models and Their Treatment**

**Jos de Keijser, University of Groningen, the Netherlands**

Research on CBT-treatment of bereaved is growing after formulating diagnostic criteria in DSM-5 (PCBD) and ICD-11 (Prolonged Grief Disorder). This workshop is focussed on the diagnostics and CBT-treatment of PCBD. Three supplementary models, the cognitive-behavioral, cognitive-stress and cognitive-attachment model can help to improve effects of treatment that become more tailored for the kind of loss. After traumatic loss (a specifier in DSM-5) for instance loss after homicide, suicide, familicide or terroristic attack many bereaved experience multiple loss and therapist experience that standard CBT is insufficient. In a stepped care model therapist start with the cognitive-behavioral model which is focussed of (1) integration of knowledge of the loss in the autobiographic memory, combined with (2) changing negative cognitions about the own grief reactions and future perspectives and (3) exposure to loss related stimuli and social activation. After complex losses, for instance after unexpected, violent loss in homicide or disaster bereaved the cognitive-behavioural model is expanded with coping with the stress of loss. The cognitive-stress model is an extension of the cognitive-behavioral model and helps the therapist to treat stress arousal and stress sensibilisation by reinforcing social support and extra psycho-education in the beginning of the therapy and to make use of writing assignments and leave taking rituals.

The cognitive attachment model (Maccallum & Bryant, 2013) also is an extension of the cognitive behavioural model. Bereaved with PCBD and an adult insecure attachment style, both attachment anxiety and attachment avoidance, need extra focus on the relation between the bereaved and the lost person during his life. The dependency in the relation with the lost one makes it hard to grief because the self-identity of the bereaved is invalidated. The therapist needs to help the bereaved to enforce a new identity in which the bereaved learns to live without the lost one.

The research the Utrecht-Groningen Study group performed of different kind of treatments of PCBD are overviewed and in the second and third presentation in the workshop two of these studies are presented.

### **Effects of Cognitive Behavior Therapy (CBT) in Homicidally Bereaved People**

**Paul Boelen, Utrecht University and Arq Psychotrauma Expert Group, the Netherlands**

The death of a relative due to homicide is undoubtedly one of the most disrupting events that people can experience. There is a growing body of evidence showing that this event is associated with severe distress and disability, and elevated risk for prolonged grief, posttraumatic stress disorder (PTSD), and depression. From a cognitive behavioural perspective it can be argued that negative cognitions and avoidance behaviours are involved in the maintenance of emotional distress following such loss. Indeed, there is growing evidence that this distress is associated with different maladaptive cognitions and behaviours, including those associated with anger and revenge but also anxious and depressive cognitions and behaviours. Based on cognitive behavioural theorizing and (this) research, it could be predicted that cognitive behavioural therapy (CBT) is an effective approach to alleviate psychopathology following homicidal loss.

The current presentation addresses the specific types of emotions, cognitions, and behavioural processes that are involved in psychopathology following homicidal loss. Furthermore, CBT interventions that can be used to diminish this psychopathology are illustrated. In addition, results are presented from a randomized controlled trial (RCT) in which over 80 homicidally bereaved people underwent CBT combined with eye movement desensitization and reprocessing. Results confirm that this combination of interventions is, indeed, effective in diminishing psychopathology. However, we found that there were differences in the degree to which different types of symptoms responded to treatment. Based on our RCT, we also explored potential mechanisms of change of CBT for psychopathology following homicidal loss. These analyses, which will also be presented, indicated, among other things, that changes in anxious cognitions and behaviours play a prominent role in symptom reduction during CBT for homicidally bereaved people.

### **Disturbed Grief, Posttraumatic Stress, and Depression Symptoms in Disaster-Bereaved People: Symptom-Profiles, Temporal Associations, and Treatment**

**Lonneke Lenferink, University of Groningen, the Netherlands**

**Angela Nickerson, University of New South Wales, Australia**

**Geert E. Smid, Arq Psychotrauma Expert Group and University of Humanistic Studies, the Netherlands**

**Jos de Keijser, University of Groningen, the Netherlands**

**Paul A. Boelen, Utrecht University and Arq Psychotrauma Expert Group, the Netherlands**

The risk of persistent complex bereavement disorder (PCBD, and comorbid posttraumatic stress disorder (PTSD) and depression, is greater following a sudden/violent loss (e.g., disaster-related loss). This has also been referred to as “traumatic grief”. Knowledge on the course of traumatic grief among disaster-bereaved people could enhance our understanding of aetiology and treatment of traumatic grief. In a Dutch four-wave longitudinal study, we conducted two studies, examining the course of traumatic grief symptoms among people (N = 172) whose significant other died due to a plane disaster with flight MH17 that took place in 2014. People completed PCBD, PTSD, and depression questionnaires 11, 22, 31, and 42 months after the disaster.

To identify (predictors of) trajectories of PCBD, PTSD, and depression in disaster-bereaved people (study 1) and to examine temporal associations between these symptoms (study 2) latent class growth modelling and cross-lagged analyses were used, respectively. In study 3, people (N = 39) with elevated traumatic grief levels were included in a randomized controlled trial (RCT) examining the effects of cognitive plus EMDR therapy (vs. waitlist controls) on PCBD, PTSD, and depression symptoms. Participants completed questionnaires before and after treatment or waiting period. Multi-level modelling was used for data-analysis.

In study 1, a Mild (81.8%) and Chronic (18.2%) PCBD class emerged. For PTSD and depression we found a Mild (85.2% and 85.6%), Recovered (4.4% and 8.2%), and Chronic trajectory (10.3% and 6.2%). A lower educational level predicted chronic trajectories. In study 2, changes in PCBD symptoms had a greater impact on changes in PTSD and depression symptoms than vice versa. In study 3, preliminary RCT findings showed that PCBD, PTSD, and depression symptom-levels significantly declined for both groups with a significantly stronger decline in depression for the treatment condition.

To conclude, in study 1 we found support for differential trajectories across the outcomes, suggesting that different symptom-profiles post-loss may need different treatment approaches. Study 2’s findings run counter to the notion that PTSD and depression symptoms should be addressed before grief in treatment. Based on study 3, we suggest that cognitive therapy plus EMDR might be useful for treating people with traumatic grief, but there is room for improvement.

### **Addressing the Mental Health and Wellbeing of Young People in out-of-Home Care**

**Convenor: Rachel Hiller, University of Bath, United Kingdom**

**Chair: Rachel Hiller, University of Bath, United Kingdom**

**Discussant: Nina Heinrich, Braunschweig University of Technology, Germany**

### **Cognitive Predictors of (Complex) PTSD in a Longitudinal Study of Children in out-of-Home Care**

**Rachel Hiller & Sarah Halligan, University of Bath, United Kingdom**

**Richard Meiser-Stedman, University of East Anglia, United Kingdom**

**Elizabeth Elliott, University of Bath, United Kingdom**

Young people in care have commonly been exposed to multiple repeated traumas, often over a prolonged period of time. Despite trauma-exposure being a common experience, and rates of PTSD that are 12x higher than in their peers, there remains confusion around the best way to conceptualise, and thus address, trauma-related distress in this group.

We conducted a longitudinal study following 120 10-17 year olds, who were under the care of 3 Local Authorities in England. Participants, and their caregiver, completed three assessments over a 1-year period, primarily via questionnaire batteries that explored core cognitive predictors of PTSD, including maladaptive appraisals, trauma memory qualities and cognitive coping. The majority of the sample were in foster care (86%), with 10% in a kinship placement and 4% in a residential care home. One-third of the sample experienced a placement breakdown between the first assessment and 1-year follow-up. 80-90% had been exposed to at least one Criterion-A trauma (M = 3.3).

Findings showed existing cognitive and behavioural models of PTSD were highly applicable to this more complex group. Maladaptive appraisals in particular were a strong predictor of later PTSD symptoms and complex features. There was also high overlap ( $r = .86$ ) between PTSD symptom severity and complex features severity. Core cognitive processes and (complex) PTSD symptoms were also moderate to strong predictors of child- and carer-reported wellbeing markers, including suicidality, behaviour difficulties, and school wellbeing. Overall, findings demonstrated the large proportion of young people in care who are struggling with elevated PTSD symptoms, including intrusive and distressing flashbacks of their maltreatment and an elevated sense of threat. That existing cognitive and behavioural models of PTSD applied to this group suggests existing treatment models, particularly trauma-focused CBT, should be seen as the first-line treatment for young people in care presenting with PTSD or complex PTSD. This talk will also include discussion on the usefulness of the new complex PTSD criteria, in relation to young people in care.

### **Exploring the Feasibility in a Social Care Service of Screening Children and Young People Who Have Suffered Maltreatment and Abuse for (PTSD) and the Effectiveness of Providing Trauma-Focussed CBT for this Group of Children**

**Michael Duffy, Queens University Belfast, United Kingdom**

Exploring the feasibility in a social care service of screening children and young people who have suffered maltreatment and abuse for (PTSD) and the effectiveness of providing trauma-focussed CBT for this group of children

This paper will present data on a mixed-methods study from Northern Ireland:

- (a) to explore the feasibility of implementing routine screening for PTSD within the a social-care system and via non mental health professionals (e.g., social workers). Young people referred to a large social care organisation experiencing behaviour problems, were screened for PTSD and received a follow assessment by a trained mental health clinician. This paper will report on the percentage and the profile of those presenting with clinically-elevated PTSD symptoms and present qualitative data on feasibility issues with implementing screening tools within social-care.
- (b) to consider the preliminary findings from a feasibility trial implementing trauma-focussed CBT within these resource-stretched settings. This paper will report on outcomes to date from the trial and the feasibility and acceptability of providing TF CBT with such children and carers. We will consider issues relating to stake-holder engagement to facilitate experimental research with this group of young people and report on the challenges and opportunities for working across social-care and mental health services

### **Developing Two Online-Interventions for Youth in Care and Their Caregivers**

**Antonia Brühl, Braunschweig University of Technology, Germany**

**Betteke Maria van Noort & Birgit Wagner, MSB Medical School Berlin, Germany**

**Nina Heinrichs, University of Bremen, Germany**

Youth in care (Y-IC) have often experienced some form of child maltreatment and are not only a high-risk group for mental health problems, but also for different types of subsequent (re-)victimization. Although the literature suggests several risk factors for mental health problems and re-victimization in Y-IC, the relevance of these factors has rarely been translated into effective prevention programs for foster and adoption families. Therefore, we will present, how implications of a previous study Grow & Treat that investigated the longitudinal development of foster children under different conditions of treatment led to our current study Empoweryou. In this completed intervention study Grow & Treat, 81 foster families with children aged 2 to 7, were randomly allocated to a usual care control group or a group parenting program. Difficulties to participate in centrally located intervention groups emerged in this trial. Among others, these experiences created the current study which aims to co-design and investigate two online-interventions for either foster and adoptive parents or for adolescents in care to prevent (re-) victimization in form of maltreatment, abuse, peer and sibling victimization as well as cyberbullying. Part of the Empoweryou project is to first conduct a series of focus group discussions with (a) foster and adoption parents, (b) children in care aged 8-13, (c) adolescents in care aged 14-21, and (d) Y-IC experts, such as therapists or youth welfare services. We aim to gain insights into the risks and resources of Y-IC, their experiences and coping strategies with victimization as well as the adequate content and form of such online-intervention modules. After developing the key intervention modules for caregivers and adolescents in care, both interventions will be piloted. We will present preliminary results of the focus group discussions, which will guide us in developing two easy-accessible online-interventions. Preliminary conclusions on how to develop promising interventions that will be specifically tailored to the needs of foster and adoptive parents will be discussed.

### **Treatment of Intrusions and Intrusive-Like Phenomena**

**Convenor: Kees Korrelboom, Tilburg University, the Netherlands**

**Chair: Kees Korrelboom, Tilburg University, the Netherlands**

#### **The Treatment of Self-Deprecating Intrusions; Introduction to the Symposium**

**Kees Korrelboom, Tilburg University, the Netherlands**

Several effective interventions have been developed to treat intrusions. Repeated and prolonged exposure to the intrusive thoughts, images and impulses is a characteristic aspect of most of those treatment methods. While prolonged and repeated exposure is the outstanding and single feature of imaginal exposure, in other interventions imaginal exposure to the feared intrusion is simultaneously combined with different distracting stimuli and tasks. Distracting tasks might consist of making bilateral eye movements as is distinctive for eye movement desensitization and reprocessing (EMDR) or of judging the attractiveness of emotional charged pictures, shown on a screen as can be done in dual tasking.

During the symposium several of these interventions will be presented, as will be the results of research into their applicability and effectiveness.

However, not all interventions that address intrusions and intrusive-like phenomena lean primarily on exposure to the problematic intrusions. According to Brewins (2006) memory retrieval account as a central working mechanism of CBT, most concepts have different meanings, stored in long term memory (LTM). These meanings are competing for activation. Once a specific meaning has been activated, this meaning determines the momentaneous mood and behaviour of the person in question, meanwhile inhibiting the retrievability of other incompatible meanings.

Therefore, CBT is not (only) about modifying the intrinsic meaning of misinterpreted, situations, thoughts and actions directly, it is (also) about enhancing or reducing their relative retrievability from LTM.

In Competitive Memory Training (COMET) Brewin's memory retrieval account is put into therapeutic action. Patients suffering from low esteem, whether or not in the form of self-deprecating intrusions and intrusive-like thoughts, learn firstly to identify positive personal

characteristics that are illustrative of their worth as a person and are incompatible with their habitual negative self-opinions. Then, by writing down and imaging repeatedly all sorts of specific instances where these positive characteristics were at work in real life, the retrievability of these positive self-knowledge is enhanced. Finally, by the procedure known as counterconditioning the enhanced sense of positive self-worth is associated with triggers that functioned formerly as cues for the retrieval of negative self-opinions.

After a short introduction to the COMET procedure, an overview of the results of several COMET studies will be presented.

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### **A Study Protocol: Dual Tasking and Posttraumatic Stress Disorder: Does the Emotional Valence of the Distracting Task and the Working Memory Load Matter?**

**John Molenaar, GGZ Delfland, the Netherlands**

**Aglaia Zedlith, Leiden University, the Netherlands**

**Kees Korrelboom, Tilburg University, the Netherlands**

Trauma-focused cognitive behaviour therapy (TF), known as imaginary exposure (IE) and eye movement desensitization and reprocessing (EMDR) are first choice of treatment for PTSD. The vividness and emotionality of traumatic memories decrease by the retrieval of the traumatic memory and simultaneously the performance of a distracting task: the dual tasking of the working memory. Although techniques such as EMDR are well proven there is plenty of room for improvement. This study with patients with PTSD primarily seeks to examine these working mechanisms by investigating whether the emotional valence of the distractor or the working memory load is of importance. The primary hypothesis is that a positive task will be more effective in distracting and we expect that patients with a relative greater working memory will benefit more from the treatment compared to patients with less working memory capacity when the impact of the trauma is high. We also expect that patients with a relative limited working memory capacity will benefit more when the impact of the trauma is light. Our research is aimed to answer these questions. We show some preliminary results of our study.

Patients with PTSD and indicated for IE or EMDR will be included from a Dutch health centre; GGZ Delfland. After the inclusion a trauma script and hotspot are drawn up. The randomization takes place after the inclusion. We use a crossover design. Patients will be exposed to three different conditions: respectively distraction with a positive, neutral or exposure only condition. The draw is balanced.

The primary outcome measures are the difference scores within and between the before and the postings on the two VAS scales that are determined at the beginning and the end of each intervention block. These difference scores within and between the blocks will be tested per variable, brightness/living condition and emotionality/unpleasantness with three-way (condition, time and sequence) mixed ANOVA.

### **Unexpected Findings in a Dual Tasking Procedure for Negative Autobiographic Memories in a Student Population**

**Tom IJdema, Tilburg University, the Netherlands**

**Odilia Laceulle, Utrecht University, the Netherlands**

**Annemiek Karreman & Jolanda de Vries, Tilburg University, the Netherlands**

**Kees Korrelboom, Tilburg University and PsyQ, the Netherlands**

Background: Lab experiments show that engaging in a secondary working memory task while simultaneously recalling a stressful memory interferes with reconsolidation. Studies on emotional valence of the secondary task show promise but lack ecological validity. In the current two studies, we evaluate differential effectiveness of an emotionally valenced dual task on emotionality and vividness of stressful memories in both a within and between subjects designs in a student population.

Methods: University students formulated a script of a stressful autobiographical memory and activated the memory while simultaneously rating pictures in the positive or negative dual tasking conditions or watching a cross in the control condition (exposure only). In the first study, all participants took part in all conditions. The second study was between subjects and contained a follow-up measurement after a week.

Results: Our first set of comparisons revealed that memories in both dual tasking conditions (positive + negative) were less emotional and vivid than in the control condition. Post emotionality and vividness scores did not differ between the positive and negative conditions. Our second set of comparisons revealed that, contrary to expectations, memories became more emotional in the negative and control condition compared to baseline. In the positive condition emotionality remained stable. Memories in the positive and control condition became significantly more vivid compared to baseline; in the negative condition vividness remained stable. Data collection of the second study is still in progress at the time of writing and will be presented during the symposium for the first time.

Conclusions: The results of the first study seem to imply that there is a delicate balance between too heavy activation of a stressful memory on the one hand and presenting an adequate dual task on the other hand. Further implications will be discussed.

### **Treatment of Paranoid Intrusions with Virtual Reality**

**Roos Pot-Kelder, Vrije Universiteit, the Netherlands**

**Wim Veling & Chris Geraets, UMCG, the Netherlands**

**Mark van der Gaag, Parnassia and VU, the Netherlands**

Many patients with a psychotic disorder have persistent paranoid ideation and avoid social situations because of paranoid intrusions and anxiety. In our work we have investigated virtual reality based cognitive behavioral therapy (VR-CBT) for paranoid intrusions and its working mechanisms. In virtual exposure creates a 'real enough' environment where paranoid intrusions are both elicited<sup>1,2</sup> and effectively treated<sup>3</sup>. Real world phenomena transfer to the virtual environment, while the effect of in virtual treatment generalizes to daily life. Safety behavior and social cognition problems are mediators of change in paranoid ideation. Implications will be discussed.

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### **Modality Specific Taxation in the Treatment of Intrusions**

**Suzy Matthijssen, Utrecht University, the Netherlands**

Reducing the emotionality and vividness of (mainly visual) intrusive memories of traumatic events is the focus of EMDR therapy. But patients with PTSD suffer not only from visual intrusions. Also auditory intrusions are very common. But how can EMDR therapy be best applied on these auditory intrusions? Can they even be targeted? And should the modality of taxation in EMDR (visual or auditory) be matched to the (visual or auditory) modality of the intrusion? Suzy Matthijssen has conducted several studies on the effect of modality specificity and will provide you with an overview; giving you more insight in the underlying working mechanism of EMDR and how to best apply modality specific taxation.

### **Why We Need Psychological Theory for Innovation in Clinical Practice: A Tribute to Brewin's Work on Memory for Trauma**

**Convenors: Victor Kovalets, University College London and University of Southampton, United Kingdom & Emily Holmes, Uppsala University, Sweden**

**Chair: Emily Holmes, Uppsala University, Sweden**

**Discussant: Chris Brewin, University College London, United Kingdom**

### **Exploring the Use of a Novel Visuospatial Navigating Task to Reduce Intrusive Memories - Validating the Dual Representation Theory of Chris Brewin with a New Task**

**Victor Kovalets, University College London and University of Southampton, United Kingdom**

**Lusia Stopa, University of Southampton, United Kingdom**

**Hugo Spiers, University College London, United Kingdom**

**Emily Holmes, Uppsala University, Sweden**

The dual representation theory (Brewin, Dalgleish & Joseph, 1996; Brewin, Gregory, Lipton & Burgess, 2010) of post-traumatic stress disorder suggests that visuospatial engaging tasks, such as the computer game, Tetris, could reduce the number of intrusions following a traumatic experience. This occurs because engaging visuospatial processes selectively strengthens contextual and sensory representations of the traumatic event thereby reducing intrusions through stronger memory associations. However, the majority of these studies have been conducted using a particular task, Tetris. In addition, Tetris does not help researchers understand whether a visuospatial task with different variations and demands could lead to changes in intrusive memories. To provide support for the dual representation theory with different tasks, we used Sea Hero Quest (SHQ), a new 3D visuospatial navigating game with stages varying in cognitive demand. We particularly aimed to explore whether another visuospatial task has similar intrusion reducing effects to Tetris as well as whether any of the three different levels of Sea Hero Quest could differentially affect intrusions. We tested 83 participants 18-26 years of age ( $M = 22.30$ ,  $SD = 5.16$ ). Participants were randomly assigned to a group where they played Tetris, SHQ as a whole (i.e., playing all three levels), SHQ wayfinding, SHQ path integration, SHQ radial maze, or a no-task control. Stressful films were presented to participants followed by the task condition to which they were assigned. Participants then recorded negative memories from the stressful film they watch for one week. Results indicated that, as predicted, all SHQ tasks and Tetris significantly reduced intrusions compared to a no task control. However, there was no significant difference between intrusions when comparing between SHQ groups and the Tetris group. Brewin's dual representation theory predicts that a visuospatial task should reduce intrusions regardless variations in the tasks, and our findings support this theory. Hence, more than 30 years after the initial proposal of the dual representation theory, its predictions with a new task are still supported holding testament to the strength and timelessness of this theory.

### **Brewin's Dual-Representation Theory of PTSD: A View from Experimental Psychopathology**

**Alex Lau Zhu, King's College London, United Kingdom**

In 1996, Professor Chris Brewin and colleagues put forward the dual-representation theory (DRT) – laying the foundation for one of the most influential information-processing accounts of post-traumatic stress disorder (PTSD) to date. At its heart, DRT aims to explain one of PTSD's most fascinating yet troubling features – the re-experiencing of traumatic events in the form of flashback memories. Brewin has continued to refine DRT in light of ongoing neuroscientific developments, drawing evidence from both clinical and experimental studies, and setting a research agenda in the field. Among the several tenets of DRT, one of its key proposals – and perhaps the most contested by its fiercest critics – is that there is a functional independence between involuntary and voluntary memory for the same traumatic material. Inspired by earlier dual-system proposals, DRT postulates that (involuntary) flashbacks are supported by a specialised long-term perceptual memory system, which is separate from an ordinary episodic memory system supporting other autobiographical memories. Nevertheless, such a claim stands against mainstream memory accounts, which instead argue that involuntary and voluntary memory are governed by a shared system. In this talk, I will first provide a view from experimental psychopathology in the last two decades of this ongoing debate, using the trauma-film paradigm to examine the relationship between involuntary and voluntary memory. I will then present a recent series of experiments addressing previous key methodological limitations that have hampered our ability to reject mainstream memory accounts, in a collaboration involving both basic and clinical memory researchers (Lau-Zhu et al., 2019, *Journal of Experimental Psychology: General*). The results showed that – even after improved battery of novel memory tasks – the occurrence of intrusive (involuntary) memories of a trauma film was influenced (i.e., it was reduced by an interference manipulation) without detectable impact on voluntary memory for the same film. This pattern of memory dissociation is difficult to reconcile with mainstream memory accounts, yet better accommodated by separate-systems accounts such as DRT. These data showcase the sophistication of DRT, both in its power to explain clinically-relevant phenomena, as well as its ability to produce testable and specific predictions – going 'head-to-head' with its challengers. While primarily a theory of PTSD, DRT has reached far beyond this. Undoubtedly, DRT – as well as Brewin's broader legacy – will continue to serve as source of inspiration for clinical and basic memory researchers, illuminating our understanding of emotional memories within and beyond psychopathology.

## **Preventing the Consolidation of Intrusive Trauma Memories Using a Simple Cognitive Task Intervention: A Proof-of-Concept Randomised Controlled Trial in an Emergency Department**

**Lalitha Iyadurai, University of Oxford, United Kingdom**

**Simon Blackwell, Ruhr-Universität Bochum, Germany**

**Richard Meiser-Stedman, University of East Anglia, United Kingdom**

**Peter Watson, MRC Cognition and Brain Sciences Unit, United Kingdom**

**Michael Bonsall, John Geddes & Anna Nobre, University of Oxford, United Kingdom**

**Emily Holmes, Uppsala University, Sweden**

Intrusive, sensory-based traumatic memories are a core clinical feature of PTSD, and are associated with alterations in memory processes and content (Brewin, 2011). Intrusive memories in the early period after a trauma are centrally linked to other PTSD symptoms (Bryant et al., 2017), leading to the suggestion that targeting early intrusive memories may prevent later PTSD symptoms (Iyadurai, Visser et al., 2018; McNally, 2017). Laboratory experiments with healthy volunteers have demonstrated that intrusive memory frequency in the first week after watching a trauma film can be reduced using a competing visuospatial task, such as the computer game Tetris (Holmes et al., 2009; Holmes et al., 2010), hypothesized to interfere with memory consolidation. This proof-of-concept randomised controlled trial investigated whether a simple cognitive task intervention (a reminder cue followed by playing the computer game “Tetris”), compared to an attention-placebo control condition (a simple written activity log), could reduce the number of intrusive memories of trauma in the week after a real traumatic event. 71 patients waiting in a hospital emergency department after a traumatic road traffic accident were randomly allocated to the intervention and control condition within 6 hours of the trauma. Post-traumatic stress symptoms, anxiety and depression were assessed at one week and one month, as well as participant feedback at one month. Participants in the intervention condition reported fewer intrusive memories in the week after the accident, and lower intrusion symptom scores at one week, than those in the control condition, but there were no differences in one month outcomes. Participant feedback indicated that playing Tetris was easy, helpful and minimally distressing. By directly targeting intrusive memories via disrupting trauma memory consolidation, this simple cognitive task intervention has potential as a low-intensity, low-cost preventive intervention in the first few hours after trauma. Future directions for research and clinical application (e.g., for occupational groups exposed to trauma, such as emergency department staff) are discussed.

## **Development of an Early Intervention to Reduce Intrusive Traumatic Memories after Traumatic Childbirth**

**Antje Horsch, University of Lausanne, Switzerland**

The dual representation theory (Brewin, Dalgleish, & Joseph, 1996) proposes that visuospatial tasks following trauma exposure would reduce subsequent traumatic intrusions. This is based on the idea that visuospatial tasks particularly interfere with perceptual, image-based representations. Given that several lab-based studies using the analogue trauma film paradigm have confirmed this notion, its translation into the clinic with traumatised patients seems to be a promising approach. Our group works with mothers who experienced a traumatic childbirth. Emergency cesarean section (ECS) is indicated in cases of risk to maternal and/or fetal life, therefore qualifying as a traumatic stressor for the mother. Even when the baby is born healthily, approximately 25% of mothers develop PTSD, which may negatively impact on the attachment relationship with and the development of the infant. However, evidence-based early interventions to reduce intrusive traumatic memories and to prevent the development of posttraumatic stress disorder (PTSD) are lacking. This paper will present results from a proof-of-principle randomised controlled study (NCT02502513) evaluating whether the number of intrusive traumatic memories mothers experience after ECS could be reduced by a brief computerized cognitive intervention carried out in the early aftermath of traumatic childbirth. Women after ECS were randomized to one of two parallel groups in a 1:1 ratio: intervention (usual care plus computerized cognitive task) or control (usual care). The intervention group engaged in a visuospatial task (computer-game ‘Tetris’ via a handheld gaming device) for 15 minutes within six hours following their ECS. The primary outcome was the number of intrusive traumatic memories related to the ECS recorded in a diary for the week post-ECS. According to intention-to-treat analyses, the intervention group reported fewer intrusive traumatic memories over 1 week compared with controls. There was a trend towards reduced acute stress re-experiencing symptoms after 1 week. The majority of women rated the intervention as acceptable. Per-protocol analyses showed significantly less acute stress re-experiencing symptoms after 1 week in the intervention group. At 1 month, participants in the intervention group had significant less avoidance symptoms and PTSD diagnosis. This represents a first step in the development of an early and potentially universal intervention to prevent postnatal PTSD symptoms after traumatic childbirth. A subsequent randomized controlled trial Swiss TrAumatic biRth Trial (START; NCT03576586) is now testing whether this early intervention may benefit both mother and child and investigating the underlying physiological mechanisms of the intergenerational transmission of trauma.

## **Intrusive Thoughts and Memories in Adolescents: Relationships with Depression and PTSD**

**Richard Meiser-Stedman, University of East Anglia, United Kingdom**

**Alexandra Payne, Compass Looked After and Adopted Children Team, Norfolk and Suffolk NHS Foundation Trust, United Kingdom**

**Aleksandra Kralj, Offender Personality Disorder Pathway, Cambridgeshire and Peterborough Foundation NHS Trust, United Kingdom**

Depression and post-traumatic stress disorder (PTSD) are common difficulties in childhood and especially adolescence. While intrusive cognitions would be recognised to be common phenomena in both of these conditions, they received little attention, especially with respect to depression. Understanding how young people experience intrusive thoughts and memories in these conditions – i.e. their prevalence, psychological correlates and efforts to manage such phenomena – may shed important light into how these youth may be better supported. Data from two studies will be presented. The first concerns 52 11-18 year olds (13 PTSD, 11 depression, 28 control participants) who completed structured interview assessments of their intrusive memories and intrusive thoughts. The second study comprised 226 youth who had recently been exposed to a single event trauma, and were assessed at two weeks and two months post-trauma. For each study the prevalence of intrusive memories and thoughts as well as PTSD and depression severity will be presented, alongside data pertaining to psychosocial and cognitive correlates of each outcome. Commonalities between correlates of depression and PTSD will be outlined, as well as distinctive features of each outcome. The clinical implications of these findings will be discussed, with a particular emphasis on the feasibility of undertaking this kind of research in youth, a population often considered too vulnerable to participate in clinical research.

## **Possible Relationship Between Sexual Orientation, Adverse Childhood Experiences (ACE) and Post-Traumatic Stress Condition: Psychological and Physical Consequences**

**Convenor: Antonella Montano, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

**Chair: Antonella Montano, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

**Discussant: Mehmet Sungur, Medical School of Marmara University, Turkey**

### **Adverse Childhood Experiences' Prevalence in Italian Lesbian/Gay, Bisexual and Heterosexual Population**

**Antonella Montano, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

**Gemma Battagliese, Centro Riferimento Alcolologico Regione Lazio and Sapienza University of Rome, Italy**

**Roberta Rubbino & Roberta Borzi, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

**Rita Vadalà, Istituto di Ricovero e Cura a Carattere Scientifico Santa Lucia, Italy**

**Filippo Perrini, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

Adverse Childhood Experiences (ACE) refer to some of the most intensive and frequently occurring sources of stress that children may suffer early in life. ACE may include physical, sexual and emotional abuse, neglect, exposure to domestic violence, parental discord, familial mental illness, incarceration and substance abuse. For same-sex sexual oriented population there is also a specific adverse experience due to social and internalized homophobia and gender non conformity. In our study, using the ACE scale we examined prevalence of childhood abuse, neglect and household dysfunctions among sexual minority and heterosexual adults. Participants were 1184 Italian subjects (21,6% heterosexual men, 34,9% heterosexual women, 31,7% gay men, 6% lesbian women, 2,6% bisexual men and 3,3% bisexual women), recruited informally in locations where they could respond with a complete anonymity. Compared with heterosexual respondents, gay/lesbian and bisexual individuals have more ACEs. In particular, lesbian and bisexual women are more exposed to sexual abuse; bisexual men are more physically maltreated; gay men are more witnessing their mother been abused.

Results show that sexual minority individuals have increased exposure to multiple developmental risk factors as physical, sexual and emotional abuse, and neglect. Public health practitioners, researchers and sexual health education coordinators should consider these differences.

### **Association Between Gender Nonconformity and Traumatic Experiences in LGB Population**

**Roberta Rubbino & Filippo Perrini, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

**Gemma Battagliese, Centro Riferimento Alcolologico Regione Lazio and Sapienza University of Rome, Italy**

**Roberta Borzi, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

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Gender nonconformity is higher in same-sex sexual oriented people and has been associated with lower quality of life, mental and physical health. Moreover, gender nonconformity represents a risk factor for traumatic experiences but only few studies suggested gender nonconformity as an indicator for childhood physical, sexual, and psychological abuse. In the present study we examined the relationship between gender nonconformity and adverse childhood experiences among heterosexual, lesbian, gay, and bisexual (LGB) individuals. Participants were 1184 heterosexual and LGB individuals who completed the Adverse Childhood Experiences (ACE) questionnaire and the Traditional Masculinity and Femininity (TMF) scale. Results confirmed that gender nonconformity is greater in LGB population. Moreover, we found that higher gender nonconformity is associated with higher prevalence of adverse childhood experiences. In particular, people with higher gender nonconformity were exposed to more emotional and sexual abuse and emotional and physical neglect. Concerning household dysfunctions, gender nonconformity is greater in those who report having been exposed to parental separation or divorce and household mental illness. Our data demonstrated not only the relationship between gender nonconformity and childhood abuse but also the association with neglect and adverse domestic experiences. Future studies will investigate gender nonconformity as a vulnerability factor predicting the higher probability to be exposed to traumatic experiences in LGB population.

### **Adverse Childhood Experiences and Health Care Services Access in LGB Population**

**Roberta Borzi, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

**Gemma Battagliese, Centro Riferimento Alcolologico Regione Lazio and Sapienza University of Rome, Italy**

**Filippo Perrini & Roberta Rubbino, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

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**Antonella Montano, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

LGB population has a greater exposure to adverse childhood experiences and greater levels of psychopathology. Then, LGB clients are supposed to have higher need for treatment. But in literature there is a discordance whether health care services access is more or less common among LGB population rather than heterosexual one.

The aim of this study is to examine the relationship between psychological consequences of adverse childhood experiences and prevalence of treatment request in sexual minority and heterosexual adults exposed to those experiences. Participants were 1184 Italian subjects, recruited informally in locations where they could respond with a complete anonymity. The questionnaires filled are Symptoms Checklist-90 (SCL-90) and ACE (Adverse Childhood Experiences) questionnaire. They have also been asked whether in the last year they suffered of psychological problems that led them to access to health care services for pharmacological or psychological treatment. The results showed no significant differences among heterosexual and LGB subjects' treatment request. But in those exposed to adverse childhood experiences, notwithstanding the serious psychological consequences, there are some differences in health care services access. Specifically, LGB are those who seek less professional help compared to heterosexual ones. Through the presentation of results, some issues will be discussed. Clinical implications suggest that mental health professionals should recognize that their own attitudes and knowledge about the experiences of sexual minorities are relevant to the therapeutic process with these clients.

### **Sexual Orientation and Severe Dissociative Symptoms: The Mediating Role of the Adverse Childhood Experiences and Emotional Dysregulation**

**Filippo Perrini, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

**Gemma Battagliese, Centro Riferimento Alcológico Regione Lazio and Sapienza University of Rome, Italy**

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**Antonella Montano, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

Studies reported a greater proportion of early traumatic experiences in lesbian, gay and bisexual (LGB) adults and an association between exposure to victimization and emotion dysregulation. Traumatic experiences are also related to dissociation, a process enabling the organism to survive the threatening situation and the overwhelming internal distress. In our study we explored the relationship between severe dissociative symptoms, emotional dysregulation and adverse childhood experiences in heterosexual, lesbian and gay adults. The total sample consists of 1052 heterosexual, lesbian and gay individuals who completed the Adverse Childhood Experiences (ACE) questionnaire, the Difficulties in Emotion Regulation Scale (DERS) and the Dissociative Experiences Scale – II (DES-II). Statistical analysis revealed higher levels of emotional dysregulation, dissociation and severe dissociative symptoms such as feelings of depersonalization, divided identity, amnesia and auditory hallucinations (DES-Taxon index) in lesbian and gay adults compared to heterosexuals. Exposure to early adverse experiences of abuse, neglect and household dysfunctions predicted emotion dysregulation and dissociation levels but DES-taxon scores were predicted only by neglect experiences. Then, to better understand the relationship between sexual orientation and severe dissociative symptoms we conducted mediation analyses with neglect experiences and emotional dysregulation as mediators. The results and clinical implications will be discussed.

### **Relationship Between ACEs, Compulsive Sexual Behaviors and Sexual Orientation: Evidence and Non-Correlations**

**Rita Vadalà, Istituto di Ricovero e Cura a Carattere Scientifico Santa Lucia, Italy**

**Gemma Battagliese, Centro Riferimento Alcológico Regione Lazio and Sapienza University of Rome, Italy**

**Filippo Perrini, Roberta Borzi, Roberta Rubbino & Antonella Montano, A.T. Beck Institute of Rome for Cognitive Behavioral Therapy and Research, Italy**

Adverse Childhood Experiences (ACE) refer to some of the most intensive and frequently occurring sources of stress that children may suffer early in life. In our research study a population of 1184 heterosexual and homosexual individuals completed the Adverse Childhood Experiences (ACEs) questionnaire and the Sexual Addiction Screening Test (SAST), in order to evaluate the association between compulsive sexual behaviors and ACE's, and the existence of different correlations between these behaviors, traumatic events and sexual orientation. Emerging data from our sample population have documented a greater presence of compulsive sexual behavior in males, regardless of their sexual orientation. On the other hand, in the comparison of groups with different sexual orientations, within the study population, there was a greater frequency of compulsive sexual behavior in males and females with a homosexual orientation towards the group of males and females with heterosexual orientation. Data show a greater frequency of compulsive sexual behavior among people who report having suffered trauma and in particular trauma from abuse. The relationship between abuse trauma and compulsive sexual behavior is greater in males with homosexual orientation and in females with both heterosexual and homosexual orientation. Our data showed no significant interaction between trauma, sexual orientation and compulsive sexual behaviors but showed a greater presence of compulsive sexual behaviors in the population that reports having suffered trauma from child abuse.

### **Transdiagnostic Approaches to Mental Health Problems in Refugees**

**Convenor: Naser Morina, University of Zürich, Switzerland**

**Chair: Naser Morina, University of Zürich, Switzerland**

### **Structural and Socio-Cultural Barriers to Accessing Mental Healthcare Among Syrian Refugees and Asylum Seekers in Switzerland**

**Naser Morina, University of Zürich, Switzerland**

**Nikolai Kiselev & Florence Haas, University Hospital Zürich, University of Zürich, Switzerland**

**Ulrich Schnyder, University of Zürich, Switzerland**

**Monique Pfaltz & Matthias Schick, University Hospital Zürich, University of Zürich, Switzerland**

Due to their exposition to major stressful life events and the experience of post-migration stressors, refugees and asylum seekers belong to a group that is vulnerable to developing mental health problems. Yet, despite the availability of a well-functioning healthcare system in Western host countries, refugees display lower mental healthcare utilization. Therefore, the aim of this study was to assess structural and socio-cultural barriers to accessing mental healthcare among Syrian refugees and asylum seekers in Switzerland.

A qualitative design with three types of key informant interviews, including former Syrian refugees, Swiss healthcare experts and stakeholders was applied. Interviews were analysed using thematic analysis, combining the deductive and inductive approach. This resulted in a Coding Framework, which allowed to assess the frequency of codes and qualitatively the meaning of each code.

Findings show that Syrian refugees face multiple structural and socio-cultural barriers, with socio-cultural barriers being mentioned slightly more often. This was due to the fact that Syrian key informants hardly spoke of structural barriers. Stakeholders, healthcare experts and Syrian key informants identified language, gatekeeper-associated problems, lack of resources, lack of awareness, fear of stigma and a mismatch between the local health system and Syrian problems and needs as key barriers.

Based on these findings, several implications for the treatment of refugees and integration into the Swiss health system are important and will be discussed.

### **Acculturation, Traumatic Events and Depression in Female Refugees**

**Ulrich Stangier, Annabelle Starck & Jana Gutermann, Goethe University, Germany**

**Jenny Jesuthasan & Meryam Schouler-Ocak, Charité Medical School, Berlin, Germany**

Theoretical Background: Recent research found significant correlations between traumatic events and depression in refugees. Yet, little research has addressed the role of acculturation strategies in this relationship.

Objectives: This study explored the relationship between acculturation strategies, traumatic events and depression in female refugees from Middle East countries. We expect acculturation strategies to moderate the influence of traumatic experiences on depression.

Methods: The sample includes 106 female refugees in Germany, with a mean age of 29.3 years (SD = 8.7). Nationalities were representative for the refugees in Germany, with 31.6% from Afghanistan, 28% from Syria, 14% from Eritrea, 9% from Iran, 8% from Iraq (8.1% others). 68.4% were married and living together with their partner, and 77.6% had children. 17% did not go to school, 19% had started or finished vocational training or study. Reported religion was 75% Islam, 14% Christian, 9% others, 1% no religion. Mean duration since leaving home country was 34.3 months.

As a dependent measure, the depression scale of the Hopkins Symptom Checklist (HSCL) was used. As independent measures, the Posttraumatic Diagnostic Scale (HTQ/PDS) for traumatic events and the Frankfurt Acculturation Scale (FRAKK) for acculturation strategies were employed. A moderation analysis was conducted to examine whether the relationship between the number of traumatic events and depression is lower for women using the acculturation strategy of integration and higher for women using marginalization. For further analysis, we also applied the Religiosity Scale.

Results: The number of traumatic events had a significant effect on depressive symptoms among women using marginalization but also for those using assimilation, whereas it had no significant effect for those using integration and separation. In addition, increased suicidality as assessed by one HSCL item was reported by 13.2%. Depressive symptoms and suicidality were found to correlate negatively with religiosity. Orientation towards the host culture also correlated negatively with suicidality.

Conclusion: In our sample of refugee women, orientation towards the culture of origin rather than towards the host culture had a significant impact on the relationship of traumatic events and depression. In accordance with cultural orientation, religiosity also seems to have a protective effect on mental health status after forced migration.

### **Problem Management Plus (PM+) Programme for Syrian Refugees in the Netherlands**

**Marit Sijbrandij & Jana Uppendahl, Vrije Universiteit Amsterdam, the Netherlands**

**Barbara Kieft, iPsy Almere, the Netherlands**

The crisis in Syria has resulted in an unprecedented increase in the number of refugees seeking asylum in Syria's neighboring countries as well as in Europe. Syrian refugees are at considerable risk to develop common mental disorders, including depression, anxiety, posttraumatic stress disorder (PTSD) and related somatic health symptoms.

The World Health Organization has developed a set of transdiagnostic low-intensity psychological interventions, based on cognitive behavioral therapy techniques. They are aimed to reduce symptoms of common mental disorders in communities affected by adversity. These interventions, including Problem Management Plus (PM+) and its variants, are delivered by trained non-professional counsellors under supervision of local clinicians. The EU H2020 STRENGTHS project evaluates the effectiveness of these interventions across refugee settings in Europe (Netherlands, Turkey, Switzerland, Germany and Sweden) and the Middle East (Jordan, Lebanon, and Egypt).

A pilot randomized controlled trial (RCT) was conducted in the Netherlands among adult Syrian refugees (N=60) with elevated levels of psychological distress (10 item-Kessler Psychological Distress Scale >15) and impaired daily functioning (WHO Disability Assessment Schedule 2.0 >16). Participants (Age M = 38.1, SD = 12.18, 40% male) were randomized into care as usual (CAU; N=30) or CAU with PM+ (CAU/PM+; N=30). Participants reported baseline levels of 31 (SD = 8.40) on the K10 and 31 (SD = 7.40) on the WHODAS. In the symposium, 1 week and 3 months post-intervention data from the Netherlands will be presented. Challenges regarding scaling-up transdiagnostic task-sharing interventions for refugees will be discussed.

### **The Impact of Refugees' Mental Health on Parenting and Their Children's Mental Health**

**Richard A. Bryant, University of New South Wales, Australia**

**Ben Edwards, Australian National University, Australia**

**Mark Creamer, Meaghan O'Donnell, David Forbes & Kim Felmingham, University of Melbourne, Australia**

**Angela Nickerson & Dusan Hadzi-Pavlovic, University of New South Wales, Australia**

These studies tested the impacts of refugee caregivers' prior trauma and levels of ongoing stressors on current mental health, and in turn how this influences parenting behaviour and consequent child psychological health. Both studies recruited participants from the Building a New Life in Australia (BNLA) prospective cohort study of refugees admitted to Australia. The current data comprised 411 primary caregivers who provided responses in relation to at least one child (n = 660 children). Primary caregiver PTSD and postmigration difficulties were assessed at Wave 1 (in 2013), and caregiver PTSD was re-assessed at Wave 2 (2014). At Wave 3 (2015-2016), primary caregivers repeated measures of trauma history, post-migration difficulties, probable PTSD, and Prolonged Grief Disorder, as well as harsh and warm parenting style, and also a parental report of the Strengths and Difficulties Questionnaire for their child. Path analyses revealed that caregivers' trauma history and postmigration difficulties were associated with greater subsequent PTSD, which in turn was associated with greater harsh parenting and in turn, higher levels of child conduct problems, hyperactivity, emotional symptoms, and peer problems. In contrast, the model analysing impact of prolonged grief found that grief was not associated with parenting but did not negatively impact children's emotional difficulties. Refugee children's mental health is adversely affected by parents' mental health, and this can occur via harsh parenting.

### **Those Left Behind: Developing a Cognitive Understanding and Novel Interventions for Grief**

**Convenor: Hannah Murray, University of Oxford, United Kingdom**

**Chair: Hannah Murray, University of Oxford, United Kingdom**

### **Cognitive Predictors of Grief Trajectories in the First Months of Loss: A Latent Growth Mixture Model**

**Kirsten Smith, University of Oxford, United Kingdom**

Background: The identification of modifiable cognitive antecedents of trajectories of grief is of clinical and theoretical interest.

**Method:** The study gathered three-wave data on 275 bereaved individuals in the first 6 months post-loss, and 6 and 12 months later. Participants completed measures of grief severity, cognitive factors (loss-related memory characteristics, negative appraisals, unhelpful coping strategies, and grief resilience), as well as measures of pre-loss individual differences (attachment and dependency). Latent growth mixture modelling was used to identify classes of grief trajectories. Predictors of class membership were identified using multinomial logistic regression and multi-group structural equation modelling.

**Results:** Four latent classes were identified: low grief, high grief stable, high grief low adaptation, and high grief high adaptation.

Membership of the high grief groups was predicted by higher mean scores on memory characteristics, while more negative appraisals predicted low or no adaptation in grief severity. Losing a child also predicted membership to the high grief stable class. Fast resolution of high grief was predicted by high memory characteristics but low engagement with unhelpful coping strategies.

**Conclusions:** The findings have implications for clinical practice and point to early cognitive predictors of adaptation patterns in grief.

Findings are consistent with cognitive models highlighting the importance of characteristics of memory, negative appraisals, and unhelpful coping strategies in the adaptation to highly negative life events.

### **Life After Death: Individualising CBT for PTSD Linked to Traumatic Bereavement**

**Jennifer Wild & Anke Ehlers, University of Oxford, United Kingdom**

Posttraumatic stress disorder (PTSD) following traumatic bereavement is common, and can be difficult to treat. Following spousal bereavement by illness, PTSD rates are as high as 10% (Zisook, Chentsova-Dutton, & Shuchter, 2004). Following traumatic loss, PTSD can be as high as 39%. The UK's National Institute for Health and Care Excellence recommend an extension of the suggested 8 to 12 sessions of trauma-focused psychological therapy for PTSD when an individual presents with complex needs, such as interpersonal difficulties, dissociation, and negative self-perceptions, which can arise in the aftermath of traumatic loss. Imagery techniques have been evaluated as effectively treating distress linked to traumatic memories (Wild, Hackmann, & Clark, 2007; 2008) and are a key component of cognitive behavioural therapy for PTSD. This talk presents the results of a case series of six patients who suffered PTSD linked to traumatic bereavement and shows how CBT for PTSD was individualized for this population, paying particular attention to key maintaining factors and cognitive themes that consistently emerged in treatment.

### **Bereaved Family Members' Experiences of Visiting or Revisiting the Site of Death After Large-Scale Accidents and Disasters**

**Pål Kristensen, University of Bergen, Norway**

**Hannah Murray, Jennifer Wild & Kirsten Smith, University of Oxford**

For the last three decades, a practice has evolved in Norway where bereaved families are offered to visit the place where their loved one has died following large-scale accidents and disasters (both natural and human-made). Many bereaved family members choose to participate on such collective visits, where they get information from the police, and conduct private leave-taking rituals on the actual site. Still, little knowledge about how bereaved family members experience such visits exist. In this presentation a summary of findings from several disaster studies (both natural and man-made) are presented. Both quantitative (self-report questionnaires) and qualitative (in-depth interviews) methods have been used. The following key questions will be addressed;

- Are visiting the site of death perceived as helpful, and if so in what way?
- Are there any differences in perceived helpfulness based on the cause of the disaster, or other factors such as age, gender or relationship to the deceased?
- Are there any adverse effects of such visits?
- What are important pre-visit preparations to consider in order to optimize the effect of the visit?
- What are the theoretical and clinical implications of the findings?

### **Survivor Guilt: A Cognitive Conceptualisation and Treatment Framework**

**Hannah Murray, University of Oxford, United Kingdom**

Survivor guilt is a common experience following traumatic events in which others have died, but little research has addressed its phenomenology, nor has the issue been conceptualised using contemporary models which would help guide clinicians in effective treatment approaches to this distressing problem. In this talk, Dr Hannah Murray will present a preliminary cognitive conceptualisation for existential survivor guilt, based on the existing literature, and recent research. The cognitive model is used as a basis to suggest some preliminary treatment interventions for survivor guilt.

### **Assessment and Treatment of Combat-Related Posttraumatic Stress Disorder and Comorbid Disorders: Results from the STRONG STAR Consortium**

**Convenor: Alan Peterson, University of Texas Health Science Center at San Antonio, USA**

**Chair: Stacey Young-McCaughan, University of Texas Health Science Center at San Antonio, USA**

**Discussant: Richard Bryant, University of New South Wales, Australia**

### **Challenges and Strategies in the Assessment of Combat-Related PTSD**

**Meghan McDevitt-Murphy, University of Memphis, USA**

There are a number of challenges in the assessment of combat-related posttraumatic stress disorder (PTSD) in active duty military personnel and veterans. The identification of the single most distressing trauma (i.e., the DSM-5 Criterion A event) is often difficult because of the frequency, intensity, and types of traumatic events that often occur during military combat deployments. Many combat traumas result from exposure to the extreme human carnage that can occur from explosive blasts. The high co-occurrence of blast-related traumatic brain injuries (TBI) in service members and veterans with combat-related PTSD further complicates clinical assessments because of the potential for overlapping symptoms and memory difficulties about the event. PTSD is most often assessed with self-report measures (e.g., PTSD Checklist for DSM-5) or by structured clinical diagnostic interview (e.g., Clinician-Administered PTSD Scale for DSM-5; CAPS). However, these assessments can be influenced by reporting bias. For example, active duty military personnel who have completed combat deployments and desire to remain on active duty may minimize the report of their PTSD symptoms. Conversely, the potential for disability benefits may result in the over-reporting of PTSD symptoms in active duty service members who are nearing the time of their separation from the military as well as for prior service military veterans. In addition, the assessment of PTSD symptoms does not include a comprehensive assessment of any limitations in social or occupational functioning. Additional strategies are needed for the in the assessment

of combat-related PTSD in service members and veterans. This presentation will address strategies for assessing PTSD, functional impairment and related disorders using a standardized set of measures across the STRONG STAR Consortium and the Consortium to Alleviate PTSD (CAP). The presentation will also describe an innovative approach to obtaining fine-grained data about daily activity patterns used in one CAP project. This study used ecological momentary assessment (EMA) to capture day-to-day data about activity engagement and to relate these daily patterns to ratings of PTSD severity and functional impairment. The sample includes 70 US military veterans (89% male, mean age = 38.3 years, SD = 8.1) who met criteria for PTSD (mean CAPS score = 32.87; SD = 7.13). Completion of the final follow-up data collection will be complete by May 2019. Participants were followed for 3 weeks, responding to multiple prompts per day on a mobile device. Data collected at these prompts will be used to calculate metrics reflecting proportional time/effort allocation across a number of relevant areas, (e.g., avoidance, social, substance use). Multilevel models will investigate the extent to which these metrics predict subsequent symptom severity as well as functional impairment. Implications of EMA as an assessment strategy in clinical and research settings will be discussed.

### **Cognitive Processing Therapy for the Treatment of Combat-Related PTSD in Active Duty Military Personnel**

**Patricia Resick, Duke University Medical Center, USA**

Cognitive Processing Therapy (CPT) is an evidenced-based, trauma-focused cognitive therapy for posttraumatic stress disorder (PTSD) that has been found to be efficacious in randomized clinical trials in both civilian and veteran populations with long-lasting results over 5-10 years. A recent meta-analysis found CPT to have the highest average effect size of any treatment for PTSD. In a dismantling study of the treatment, a cognitive-only version, which does not include written trauma accounts, was shown to be equally effective as CPT and used in all of the studies presented here. Until recently there had been no studies of the use of CPT for the treatment of combat-related PTSD in active duty military personnel. This presentation will provide an overview of the results of four clinical trials of CPT in active duty military personnel conducted in collaboration with the STRONG STAR Consortium.

The first study was a two-armed randomized clinical trial (RCT; N = 108) for combat-related PTSD in active duty military to compare group CPT to group Present Centered Therapy (PCT; Resick et al., 2015). The results indicated that group CPT was more efficacious than group PCT. The second study was a two-armed RCT (N = 268) for combat-related PTSD in active duty military personnel to compare individual CPT to group CPT. The results indicated that individual CPT was more effective than group CPT. Secondary analyses will provide some possible reasons. The third study is a variable-length clinical trial (N = 130) for combat-related PTSD in active duty military personnel to determine if some service members would benefit from a longer or shorter dose of individual CPT treatment and to identify predictors of good end-state functioning. Recruitment has been completed for this study and the analysis of the results is underway. The fourth study is a three-armed RCT (N = 123) to compare three different treatment delivery modalities for CPT for combat-related PTSD in service members and veterans: (1) standard face-to-face In-Office CPT, (2) Telebehavioral Health CPT (from provider's office to patient's home), and (3) In-Home CPT (face-to-face CPT in the patient's home). Participants were randomized to one of three arms using an equipoise stratified randomization design that allowed participants to agree to randomization to all three arms or to decline one arm and then be randomized to one of the two remaining arms. Recruitment has been completed for this study and the analysis of the results primary outcomes will be presented at the WCBCT. Preliminary results indicate that the dropout rate was 44% for In-Office CPT, 33% for Telebehavioral Health CPT, and 21% for In-Home CPT. These results suggest that treatment delivery modality, rather than the specific treatment intervention, is a primary factor related to dropout.

The scientific and public policy implications are that CPT is effective for combat-related PTSD when delivered in individual, group, telebehavioral health, and variable-length formats.

Future directions include how to reduce dropouts from treatment with daily, massed CPT and how to match patients to treatment using decision tools and shared decision making.

### **Prolonged Exposure Therapy for the Treatment of Combat-Related PTSD in Active Duty Military Personnel**

**Alan Peterson, University of Texas Health Science Center at San Antonio, USA**

Prolonged Exposure (PE) therapy is an evidenced-based, trauma-focused cognitive therapy for posttraumatic stress disorder (PTSD) that has been found to be efficacious in randomized clinical trials in both civilian and veteran populations. Up until recently, there had been no studies of the use of PE for the treatment of combat-related PTSD in active duty military personnel. This presentation will provide an overview of the results of four clinical trials of PE in active duty military personnel conducted in collaboration with the STRONG STAR Consortium. Two nonrandomized clinical trials conducted by Peterson and colleagues demonstrated that an abbreviated version of PE can be effectively employed during military deployments. The third study was the first randomized clinical trial of PE for combat-related PTSD in active duty military personnel treated in garrison (Foa et al., 2018; N = 366). The results of this study showed that Massed-PE (10, 90-minute PE treatment sessions conducted on weekdays over two weeks) was equally efficacious as standard, Spaced-PE (10, 90-minute sessions over eight weeks) in reducing PTSD symptoms. At posttreatment and follow-up assessment points, approximately, 40-45% of patients in both the Massed-PE and Spaced-PE treatment arms no longer met diagnostic criteria for PTSD. Dropout from the Spaced-PE arm was 25% as compared to 14% in the Massed-PE arm. The reductions in PTSD symptoms and the loss of diagnosis were less than what is often found in studies of civilian populations in which up to 80% of patients in some studies have been reported to have significant reductions in PTSD symptoms and a loss of diagnosis. Therefore, a fourth study was initiated to expand on the results of the Foa et al. (2018) study. Participants (N = 230) were post-9/11 active duty military personnel and veterans with combat-related PTSD. Participants were randomized to one of two treatment arms: 3-week Massed-PE (15 individual PE sessions conducted on weekdays over a 3-week period) or 3-week Intensive Outpatient PE (IOP-PE; the Massed-PE protocol plus eight enhancements to address many of the unique aspects of combat-related PTSD. Participants have been randomized and data analyses will begin immediately following the completion of the final 1-month follow-up assessment. The primary 1-month posttreatment outcome results will be analyzed and presented at the WCBCT meeting in July 2019. Development of highly effective treatments for combat-related PTSD is a high priority. If combat-related PTSD can be treated into remission, it will provide service members greater opportunities to remain on active duty and continue their military career. For veterans, efficacious treatments will provide increased opportunities for employment and for successful reintegration into civilian lives with minimal functional impairment.

The scientific and public policy implications of these studies are that PE is effective for combat-related PTSD in active duty military personnel during deployments as well as in garrison. PE may be more feasible for military personnel when delivered in a daily massed or intensive outpatient format.

Future directions include how to further improve outcomes with PE when combined with a stellate ganglion block or ketamine infusion.

### **Assessment and Treatment of Sleep Disorders in Active Duty Military Personnel**

**Kristi Pruiksma, University of Texas Health Science Center at San Antonio, USA**

Sleep disorders including insomnia and nightmares are highly prevalent in active duty service members and, particularly in those who have experienced trauma and symptoms of posttraumatic stress disorder. Cognitive behavioral therapies for insomnia and nightmares are first-line recommended interventions for these conditions. Until recently, there had been limited research on the treatment of insomnia and nightmares in active duty military personnel and limited research regarding how to best combine treatments for comorbid sleep disorders and posttraumatic stress disorder (PTSD). This presentation will highlight the challenges in the assessment and diagnosis of sleep disorders in military populations and will provide an overview of the results of three clinical trials on the treatment of sleep disorders in active duty military personnel conducted in collaboration with the STRONG STAR Consortium.

The first study was a three-armed randomized clinical trial (RCT; N = 100) of in-person CBT for insomnia (CBT-I), to internet delivered CBT-I, and a waitlist control in active duty military. The results indicated that both versions of CBT-I are effective for alleviating insomnia in active duty service members and that there were some advantages for in-person CBT-I. A follow-on study that continued to recruit participants into CBT-I and the waitlist control (N = 185) also found that CBT-I significantly reduced mental fatigue and improved activity, motivation, general mental health, nicotine use and caffeine use. The second study was a pilot two-arm RCT (N = 40) of CBT for nightmares (CBT-N) compared to a minimal contact control that found significant within group reductions for nightmare frequency and severity, fear of sleep, insomnia, PTSD, and depression. The third study was a three-armed RCT (N = 94) conducted in active duty service members with comorbid insomnia, nightmares, and PTSD to examine whether and how to incorporate a cognitive-behavioral intervention for insomnia and nightmares (CBT-I&N) with PTSD treatment to achieve the greatest treatment benefits in patients suffering from PTSD and sleep problems. Participants were randomized to (1) CBT-I&N followed by PTSD treatment, (2) PTSD treatment followed by CBT-I&N, or (3) PTSD treatment followed by additional PTSD treatment sessions. Recruitment has been completed for this study and the analysis of the primary outcomes will be presented at the WCBCT. Preliminary results suggest that including CBT-I&N to directly target sleep problems improves overall PTSD outcomes.

The scientific and public policy implications of these studies are the that CBT-I is effective in active duty military personnel despite military factors that can have an adverse impact on sleep, it is feasible to implement CBT-N in active duty personnel but further research is needed, and including CBT-I&N to directly address sleep difficulties can likely improve PTSD outcomes.

Future directions that are currently underway include efforts to disseminate CBT-I, to further examine CBT-N, and to examine biomarker-related outcomes in the treatment of comorbid sleep disorders and PTSD.

### **New Developments in the Treatment of Patients with Posttraumatic Stress Disorder After Childhood Abuse**

**Convenor: Kathlen Priebe, Charité Universitätsmedizin, Medical Faculty Mannheim and Heidelberg University, Germany**

#### **Developmentally Adapted Cognitive Processing Therapy for Adolescents and Young Adults with PTSD Symptoms After Physical and Sexual Abuse – Results of a Randomized Controlled Trial**

**Rita Rosner & Eline Rimane, Catholic University of Eichstätt-Ingolstadt, Germany**

**Ulrich Frick, HSD University of Applied Sciences Cologne, Germany**

**Jana Gutermann, University Frankfurt, Germany**

**Babette Renneberg, Free University Berlin, Germany**

**Eline Rimane & Anna Vogel, Catholic University of Eichstätt-Ingolstadt, Germany**

**Regina Steil, University Frankfurt, Germany**

**Objectives:** Sexual and/or physical abuse (SA/PA) is known to have severe psychopathological consequences. As yet little treatment research has been carried out with adolescents and young adults. We aim to evaluate a developmentally adapted Cognitive Processing Therapy (D-CPT) for Posttraumatic Stress Disorder (PTSD) after SA/PA in this age group. D-CPT consists of four phases: Commitment, emotion regulation, intensive CPT, and developmental tasks.

**Methods:** In a multicenter randomized controlled trial we compared D-CPT to treatment as usual (TAU) with assessments carried out at baseline, at mid treatment, at end of treatment, and 3 months after the end of therapy. 88 patients aged 14-21 were included at three treatment sites and randomized to D-CPT and TAU. Patients were assessed with standardized clinical interviews (SKID, CAPS-CA) and questionnaires focusing on self-reported posttraumatic symptoms.

**Results:** Patients showed severe posttraumatic symptoms in interview (CAPS-CA: M = 65.16) and questionnaires (UCLA: M = 42.1) at intake. Although patients improved over time, change in PTS-symptoms accelerated during CPT resulting in a large significant effect in favour of D-CPT as compared to TAU.

**Discussion:** Results show that even this very distressed sample of young people can be treated successfully in an outpatient setting.

#### **Secondary Effects of Developmentally Adapted Cognitive Processing Therapy for Youth with Symptoms of Posttraumatic Stress Disorder After Childhood Sexual and Physical Abuse**

**Regina Steil, Goethe University, Germany**

**Eline Rimane, Catholic University Eichstätt, Germany**

**Jana Gutermann, Goethe Universität Frankfurt, Germany**

**Babette Renneberg, Free University Berlin, Germany**

**Franziska Schreiber, Goethe University Berlin, Germany**

**Anne Vogel & Rita Rosner, Catholic University Eichstätt, Germany**

**Background:** Child sexual and/or physical abuse (CSA/CPA) is known to have severe psychopathological consequences. For example, it has been shown to increase not only the risk for Posttraumatic Stress Disorder (PTSD) but also several other disorders such as affective disorders or Borderline Personality Disorder (BDP). However, there has been limited investigation of whether treatment for PTSD after SA/PA can also improve specific comorbid symptoms or general psychological problems. We evaluated the secondary outcomes of Developmentally adapted Cognitive Processing Therapy (D-CPT) for PTSD after SA/PA in adolescents and young adults.

**Method:** We compared D-CPT to a waitlist condition with treatment advice (WL) in a multicenter randomized controlled trial among adolescents aged 14 to 21 years. Assessments were carried out at baseline, end of treatment, and three months after the end of therapy. 88



patients were included at three treatment sites. Patients were assessed with questionnaires focusing on self-reported borderline symptoms (BSL-23), dissociation (ADES), severity of depression (BDI-II), and general psychological problems (YSR). Serious adverse events were monitored throughout the treatments and compared between D-CPT and TAU.

Results: D-CPT participants showed greater and stable improvement in all secondary outcomes as compared to WL participants, with between-groups effect sizes ranging from 0.65 to 1.08 at the posttreatment assessment.

Discussion: Results show that comorbid symptoms secondary to PTSD can be treated successfully in young people in an outpatient setting. Specifically the effect size in the improvement of borderline symptoms is greater than in some studies where treatment focuses on this personality disorder.

### **Dialectical Behavior Therapy for Posttraumatic Stress Disorder Related to Childhood Abuse as Compared to Cognitive Processing Therapy – A Randomized Controlled Trial (the RELEASE Study)**

**Kathlen Priebe, Charité Universitätsmedizin, Medical Faculty Mannheim and Heidelberg University, Germany**

**Regina Steil, Goethe University Frankfurt, Germany**

**Thomas Fydrich, Humboldt University Berlin, Germany**

**Petra Ludäscher, Central Institute of Mental Health, Germany**

**Meike Müller-Engelmann, Goethe University Frankfurt, Germany**

**Christian Schmahl, Nikolaus Kleindienst & Martin Bohus, Central Institute of Mental Health, Germany**

Introduction: Dialectical behavior therapy for posttraumatic stress disorder (DBT-PTSD) is specifically tailored to treat adults with PTSD related to childhood abuse. DBT-PTSD is designed as a multicomponent treatment, merging DBT principles, trauma-focused cognitive and exposure based techniques, and compassion focused interventions. Recent data of a first randomized controlled trial have shown good feasibility and large effect sizes in an inpatient treatment setting.

Method: To investigate the effects of DBT-PTSD as compared to cognitive processing therapy (CPT) on posttraumatic symptoms as well as on secondary outcomes such as dissociation, depression, global functioning and symptoms of borderline personality disorder in an outpatient treatment setting, we treated 98 vs. 95 female patients suffering from PTSD following childhood abuse plus difficulties in emotion regulation within a multi-site randomized controlled clinical trial. The CAPS and PCL-5 were used as primary outcomes. The Dissociative Tension Scale (DSS), the Beck Depression Scale II (BDI-II), the Borderline Symptom List (BSL-23), Global Assessment of Functioning (GAF) and the Brief Symptom Inventory (BSI) were used as secondary outcomes. Assessments were administered pretreatment, posttreatment and at 3 months follow up.

Results: Improvement was significant for all outcomes with large pretreatment to follow-up effect sizes.

Discussion The outcomes suggest significant treatment effects on primary and secondary outcomes for both treatments investigated with significant advantages for DBT-PTSD over CPT.

### **Improvement Among Dropouts from Cognitive Processing Therapy for PTSD**

**Patricia Resick, Duke University, USA**

**Kathlen Priebe, Charité Berlin, Germany**

**Meike Müller-Engelmann, Goethe University, Germany**

**Thomas Fydrich, Humboldt University Berlin, Germany**

**Christopher Hahn & Martin Bohus, Heidelberg University, Germany**

Until recently, an assumption was made that if someone dropped out of treatment for PTSD that they were quitting for logistical reasons, because they didn't like the therapy, or that they were avoiding dealing with their traumas. Possible improvement leading to drop-out had not been considered. However, Szafranski et al. (2017) examined dropouts from two civilian studies of cognitive processing therapy (CPT) and found that results demonstrated considerable proportions of participants (36-56%) displayed significant improvement and/or met good end-state scores for PTSD and depression. In a completed but unpublished study of active duty military personnel who participated in variable length CPT (Resick et al. 2019), 27% of those who dropped out and 45% of those who ran out of time (18-week window to complete treatment) had remitted from their PTSD based on the CAPS. This presentation will examine the data from the dropouts of the CPT arm of the multi-site study of BPD-PTSD study to determine if any of these women who had suffered from child sexual abuse and had symptoms of BPD as well as PTSD might have shown improvement at the time that they dropped out of treatment. Both PTSD and depression will be examined.

### **Advances in Cognitive Behavioral Therapy for Refugees with Posttraumatic Stress Disorder: From Research to Clinical Work**

**Convenor: Tullio Scramali, University of Catania and ALETEIA Institute for Complex Cognitive Therapy, Italy**

**Discussant: Ulrich Stangier, Goethe University, Germany**

### **Culturally Adapted CBT Plus Problem-Solving Therapy with Afghan Refugees: a Randomized Controlled Trial**

**Schahryar Kananian, Goethe-Universität Frankfurt, Germany**

**Devon Hinton, Harvard Medical School, USA**

Background: Approximately half of all asylum seekers suffer from trauma-related disorders requiring treatment, among them Posttraumatic Stress Disorder (PTSD), depression, anxiety, and somatic symptoms. There is a lack of easily accessible, low-threshold treatments taking the cultural background into account. Culturally Adapted CBT (CA CBT) is a well evaluated, transdiagnostic group intervention for refugees, using psychoeducation, meditation, and Yoga-like exercises.

Objective: After a first pilot trial (Kananian et al., 2017) on CBT in Farsi-speaking refugees with promising results, this study was conducted to investigate feasibility and cultural adaptation with this ethnic group in a randomized controlled design.

Method: The participants were 24 Farsi-speaking, male refugees with M.I.N.I./DSM-V diagnoses comprising PTSD, major depressive disorder, and anxiety disorders. Treatment components were adapted to the specific cultural framework of perception of symptoms, causes, ideas of healing, and local therapeutic processes, but also to social problems of asylum seekers. All participants were randomly assigned to

either the treatment or to the waitlist control group. Before and after 12 weeks of treatment, the primary outcome was assessed using the General Health Questionnaire (GHQ-28). Secondary outcome measures were the Posttraumatic Checklist, Patient Health Questionnaire, Somatic Symptom Scale, World Health Organization Quality of Life Questionnaire (WHOQOL-BREF), and Emotion Regulation Scale (ERS).

Results: All participants completed treatment. In the completer analysis, improvements were found on almost all questionnaires. Large effect sizes were seen for the GHQ-28, WHOQOL-BREF scales, and ERS. With respect to feasibility, cultural adaptation seemed to be a crucial means to promote effectiveness.

Conclusion: The RCT results support the findings of the initial pilot trial. CA CBT with problem solving may reduce general psychopathological distress and improve quality of life. Improvement in emotion regulation strategies may mediate treatment effects. CA CBT appears to be a promising transdiagnostic treatment, serving as an initial low-threshold therapy in a stepped care approach.

### **Neuroscience-Based Cognitive Therapy for Treating Refugees Affected by a Post-Traumatic Stress Disorder**

**Tullio Scrimali, University of Catania and ALETEIA Institute for Complex Cognitive Therapy, Italy**

Neuroscience-based cognitive therapy is a new science- and evidence-based psychotherapy approach, developed by Tullio Scrimali (Scrimali, 2012) that attempts to integrate certain psychophysiological methods such as monitoring of electrodermal activity (EDA) and skin conductance biofeedback (BFB) with selected cognitive techniques to treat mental disorders.

The presentation describes EDA as a psychophysiological parameter that can support a neurobiological model of post-traumatic stress disorder (PTSD). BFB was proposed as an additional therapeutic technique that can improve the efficacy of the cognitive therapy protocol. When working with refugees, biofeedback can be an optimal option as a coping instrument against anxiety which can be easily learned by the patients overcoming the difficulties linked with the language spoken.

A single-case experimental study was undertaken, in which a young refugee, affected by PTSD was treated for four months with BFB to augment his cognitive therapy. The results obtained after the treatment and a one-year follow-up demonstrate that neuroscience-based cognitive therapy is efficacious when used in the treatment of PTSD.

### **Syrian Refugees in Turkey: Symptoms of Mental Health Disorders and Effectiveness of Pilot Group Problem Management Plus (gPM+) in Reducing Psychological Distress**

**Ceren Acarturk & Zeynep Ilkkursun, Istanbul Sehir University, Turkey**

**Daniela Fuhr & Bayard Roberts, London School of Hygiene and Tropical Medicine, United Kingdom**

There are more than 3.5 millions Syrians registered in Turkey. Exposure to war trauma and postmigration difficulties make refugees at high risk for common mental health disorders. This high need and lack of evidence based culturally adapted psychosocial interventions creates a demand on the mental healthcare systems of Turkey. In this talk, first the results of a cross sectional survey study which examined the prevalence of posttraumatic stress disorder, depression and anxiety symptoms will be presented. Then, preliminary results of the pilot randomized controlled trial in which the effectiveness of group Problem Management Plus was examined will be discussed.

### **Post Traumatic Stress Disorder and Bulimia Nervosa**

**Chiara Mazzoni, Valentina Fasoli, Livia Pozzi, Elena Dapporto, Maria Luisa Rausa, Elena Tomba, Donatella Ballardini & Romana Schumann, Centro Gruber, Italy**

Background. Refugees are at higher risk of psychiatric morbidity, including Post-Traumatic Stress Disorder (PTSD)<sup>1</sup>. This is the consequence of compulsory migration, experience of traumatic events, and resettlement in new cultural settings with challenging socio-economic circumstances<sup>2</sup>. PTSD may be an important risk factor for the development of eating disorders (EDs) in refugees<sup>1</sup>. Comorbidity among EDs, traumatic events and Post Traumatic Stress Disorder (PTSD) have been reported in research with various prevalences<sup>3</sup>. A hypothesized functional relationship between these disorders deserves research attention, to identify, investigate and address untreated PTSD as a potential maintaining factor<sup>4</sup>. The aim of this study is to investigate the prevalence of PTSD in patients with Bulimia Nervosa (BN) and the nature of traumatic events experienced.

Objective. To investigate the prevalence of PTSD in patients with Bulimia Nervosa (BN) and the nature of traumatic events experienced. Methods. 296 females with BN (age 25.24 ± 6.7; BMI 21.28 ± 3.7; duration 8.6 ± 6.17 years) were assessed (EDI-3, EAT, CBA MCQ and SCID-I/II) at the beginning (t0), after 3 months (t1) and at the end of treatment (tf). The patients run an integrated multidisciplinary outpatient treatment composed by Psycho-Nutritional Rehabilitation (PNR), Cognitive and Cognitive-Behavioral Psychotherapy (CT/CBT) including a module of Trauma Therapy if necessary.

Results. 22.3% (n=66) of the whole sample met DSM-5 criteria for PTSD and 95.6% of these reported the first traumatic event before the onset of BN. 18.18% reported childhood obesity experienced as the traumatic event of their PTSD. The BN-PTSD patients show significantly higher ED related symptoms, bingeing and vomiting, interoceptive deficits, affective problems (EDI-3), in body and food preoccupation (EAT), in state anxiety (CBA-STAI) and general negative beliefs (including responsibility, superstition and punishment) (MCQ). The BN without PTSD respond with significantly higher values in autonomy and self-acceptance (PWB). The mean duration of treatment for BN-PTSD was 34 PNR and 37 CT-CBT sessions, including Trauma Therapy (drop-out: 3.8%) (BN: 18 PNR and 24 CT-CBT; drop-out: 12.2%).

Conclusion: In some cases BN and PTSD do co-exist and traumatic events tend to occur prior to onset of BN. Untreated PTSD may be one maintaining factor, for why some individuals with EDs do not successfully engage in treatment interventions, why they have a higher drop out rate, or relapse, even completing intensive treatment, after a short time. This hypothesis needs further research.

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## **The Science of Resilience: Responding to Cognitive Behavioural Biomarkers of Vulnerability**

**Convenor: Jennifer Wild, University of Oxford, United Kingdom**

**Chair: Jennifer Wild, University of Oxford, United Kingdom**

### **Increasing Resilience in Young People by Targeting Repetitive Negative Thinking**

**Thomas Ehring, Ludwig-Maximilians-Universität, Germany**

**Maurice Topper, University of Amsterdam, the Netherlands**

**Tabea Rosenkranz, Ludwig-Maximilians-Universität, Germany**

**Edward Watkins, University of Exeter, United Kingdom**

Repetitive negative thinking (RNT; e.g., rumination, worry) has been shown to be a transdiagnostic risk factor for several disorders, including depression and anxiety disorders. The presentation will give an overview of past and ongoing research targeting RNT in young people with the aim to increase resilience and reduce the risk for developing a psychological disorder. In the first part of the presentation, data from a randomized controlled trial examining two versions of a preventive intervention targeting dysfunctional RNT in a high risk population of young people will be presented. Results show that both interventions not only significantly reduced levels of RNT but also led to a reduction in the incidence of depression and generalized anxiety disorder in the following year. In the second part of the presentation, ongoing research within the EU-funded ECoWeB project will be presented that aims to increase resilience in young people using app-based technology.

### **Cognitive Processing Therapy for PTSD: What Client Characteristics Promote Successful Outcome and Long-Term Wellbeing?**

**Reginald Nixon & Marja Elizabeth, Flinders University, Australia**

A number of effective evidence-based treatments exist for PTSD, including Cognitive Processing Therapy (CPT), a trauma-focussed cognitive-behavioural intervention. As seen across a range of treatments, not everyone responds following CPT. The purpose of this presentation is to report on some of the characteristics associated with good treatment response. This will improve our understanding of the individual differences that influence outcome, and critically, identify the variables that perhaps can be leveraged early in therapy to maximize an optimal treatment response. Clients (N = 93) were randomised to either standard CPT or CPT with case formulation (CPT+CF). CPT+CF allowed therapists to deviate from the protocol for up to 5 sessions to address issues interfering with PTSD treatment (e.g., comorbidity). Assessments were conducted at pretreatment, posttreatment, and 6-month follow-up. Diagnostic interviews included the Clinician-Administered PTSD Scale (CAPS) and Mini-International Neuropsychiatric Interview (MINI). A number of standard self-report measures were used (e.g., the PTSD Checklist, PCL-5; Depression, Anxiety and Stress Scale, DASS-21). Of relevance to the current presentation we indexed clients' perceived social support at the beginning of treatment (single item), as well as coping ability and quality of relationships (AQoL), and hope of treatment success (via treatment credibility ratings). All clients have completed treatment, with some follow-ups to be completed. Overall we found in the current data strong treatment effects on PTSD and depression that were comparable between the two treatments. Lack of social support and poor relationship quality moderated depression outcomes over time, irrespective of treatment condition (lower levels associated with higher depression). Low levels of coping was associated with poorer PTSD and depression outcomes. Clients who dropped out of treatment showed lower levels of social support, relationship quality and coping, and higher PTSD and depression symptoms at pretreatment. Regression indicated that lower social support and coping at pretreatment accounted for dropout even after time since trauma, initial symptom severity, and treatment credibility was controlled. Full findings will be presented in July, however preliminary analyses indicate that life context and perceived ability to cope might be important variables to consider in treatment planning. It is important to note our initial analyses suggest that even in the presence of low social support and other challenges, many clients still responded very well to treatment. How best to identify characteristics of clients that enables accurate treatment matching to optimise clinical outcomes requires ongoing study.

### **Targeting Modifiable Predictors of Trauma-Related Disorders to Improve Resilience in Emergency Workers: A Randomised Controlled Trial**

**Jennifer Wild, Gabriella Tyson & Anke Ehlers, University of Oxford, United Kingdom**

Emergency service workers dedicate their lives to promoting public health and safety yet suffer higher rates of mental health problems compared to the general population. Existing interventions are not very successful in improving the resilience of this population, possibly because they fail to target predictors of mental health problems. First establishing predictors of mental health problems in this population (Wild et al., 2016), we then developed an intervention to modify predictors of trauma-related psychiatric disorders. Emergency service workers (N=180) were randomly allocated to receive the new resilience intervention, an alternative intervention or a wait period of four months. Participants completed a number of measures assessing resilience, wellbeing, coping and social capital at three assessment points: pre-intervention, post-intervention and three-month follow-up. Significant improvements over time in resilience, wellbeing, social capital, psychological distress, mental health awareness and confidence to manage mental health were specific to the resilience intervention and were not seen with the alternative or wait conditions. Participants receiving the intervention also demonstrated a trend to ruminate less often in response to unwanted memories compared to participants receiving the alternative intervention and wait conditions, and this change was sustained at follow-up. The success of this intervention is promising and may be associated with changes in targeted predictors of mental health problems. Future research could evaluate the intervention with a much larger sample and investigate mediators of outcome.

### **Child Maltreatment: Prevalence, Consequences and Interventions for Victims and Professionals**

**Convenor: Jörg Fegert, University of Ulm, Germany**

**Chair: Jörg Fegert, University of Ulm, Germany**

#### **The Prevalence and Consequences of Child Maltreatment**

**Andreas Witt, University of Ulm, Germany**

Background: Child maltreatment is considered a major public health problem. Most victims of child maltreatment have experienced more than one type of maltreatment. The consequences for individuals are diverse and may reach into adulthood. Besides these individual

consequences child maltreatment causes a high economic burden for societies each year. Therefore, the United Nations have made the fight against child maltreatment part of their global agenda.

Methods: Based on representative data sets and a clinical sample current prevalence rates of different types of child maltreatment and multiple maltreatment as well as their short- and long-term consequences are examined.

Results: The results from the representative data sets indicate that a substantial proportion of the population (more than 30%) experienced at least one type of maltreatment with at least moderate severity. On average people report one adverse childhood experience. The results indicate a dose response relationship, with an increased risk for a variety of psychological and somatic disorders with an increase of the number of reported adversity. Results of the clinical sample also underline the variety in consequences for the victims. Beyond Posttraumatic Stress Disorder the children were mainly diagnosed with Oppositional Defiant Disorder and Attention Deficit/Hyperactivity disorders. But also resilience was observed.

Conclusions: a substantial proportion of the population reports experiences of child maltreatment or other adversity. The consequences are divers. Especially, those who report an accumulation of different types of adversity are a high risk population. Effective prevention and intervention measures are needed.

### **A Short Term Attachment-Based Intervention to Promote Parental Sensitivity**

**Thorsten Sukale, Ute Ziegenhain, Melanie Pillhofer, Anne Künster & Jörg M. Fegert, University of Ulm, Germany**

Background:

Child abuse and neglect is a relevant social and political issue, especially in the age group 0–3 Years. Numerous international meta-analyses and reviews gave evidence, that early intervention can effectively improve parenting competencies in general, and reduce longitudinally the probability of dysfunctional parental behavior. Intervention programs can be either proactive, directed at all parents (universal prevention), or reactive, directed at parents with verified risk factors. The “Ulm Model” (Ziegenhain, 2004) was developed as a short-term, behavioral-oriented, attachment-based intervention that integrates the empirical results of infant developmental psychology and attachment theory with the concept of self-regulatory behavior. The intervention used home visits and video feedback to promote maternal sensitivity, and was implemented by trained staff within the health care and youth welfare systems.

Method:

This pilot study examined the effectiveness of a short-term attachment-based intervention, the Ulm Model, in a German population at risk for child abuse and neglect. Mothers in the control group (n=33) received standard services only, while those in the intervention group (n=63) additionally the “Ulm Model” intervention. The outcomes measured were maternal sensitivity, as assessed by the CARE-Index at pre-intervention, after the last session, and at about 6 and 12 months of age; and infant socio-emotional development, as assessed by the ET6-6 development-test at about 6 and 12 months of age. The moderating effects on treatment out-comes of two variables were examined: risk for child abuse (moderate vs. high) and type of maternal attachment representation (secure vs. insecure).

Results:

Among participants at moderate risk for child abuse, no differences were found between the intervention group and control group in either maternal sensitivity or infant development. Among those considered high risk, mothers in the intervention group showed a significant increase in maternal sensitivity from pre- to post-intervention; however, no group differences were seen at follow-up. There were some indications that infants of mothers in the intervention group showed better emotional development. The variable of maternal attachment representation was not a significant moderator for the intervention effect, but post hoc analysis indicated that the mean sensitivity of secure mothers was significant higher at the 6-month follow-up.

Conclusions:

The intervention showed promising effects in fostering the sensitivity of high-risk mothers and the emotional development of their infants. The model practice for early preventive interventions in Germany, and was shown to have practical feasibility as it was well accepted by service providers in the field.

### **Effectiveness of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) for Children and Adolescents with PTSD: A Randomized Controlled Trial**

**Cedric Sachser, University of Ulm, Germany**

Background:

Trauma-focused cognitive behavioral therapy (TF-CBT) is an evidence based treatment for children and adolescents with posttraumatic stress symptoms (PTSS). However, most studies were performed by the developers as efficacy trials. Therefore, we wanted to determine whether TF-CBT is superior to waiting list (WL) in German service settings under real-world conditions (effectiveness trial). In a secondary analysis we wanted to determine whether TF-CBT is also effective for the subgroup of children and adolescents with a complex PTSD symptom presentation.

Method:

We conducted a single-blind parallel-group randomized controlled trial in eight German outpatient clinics with the main inclusion criteria of age 7–17 years, symptom score  $\geq 35$  on the Clinician-Administered PTSD Scale for Children and Adolescents (CAPS-CA), and caregiver participation. Patients were randomly assigned to 12 sessions of TF-CBT (n = 76) or a WL (n = 83). The primary outcome was the CAPS-CA symptom score assessed at 4 months by blinded evaluators. Stability of treatment effects was assessed 6 and 12 month after completion. A latent class analyses (LCA) was used to identify a subgroup of children and adolescent with complex PTSD following the ICD-11 criteria, which was compared to the subgroup with ICD-11 PTSD.

Results:

Intention-to-treat analyses showed that TF-CBT was significantly superior to WL on the CAPS-CA (Tf-CBT: baseline =  $58.51 \pm 17.41$ ; 4 months =  $26.15 \pm 21.74$ ; WL: baseline =  $57.39 \pm 16.05$ ; 4 months =  $43.29 \pm 25.2$ ). Additionally significant improvements were found in the follow up period for the TF-CBT group (6FU =  $24.26 \pm 21.37$ ; 12FU =  $16.49 \pm 15.12$ ). A parallel treatment response was found for the ICD-11 CPTSD group compared with the PTSD group.

Conclusions:

TF-CBT is effective for children and adolescents with heterogeneous trauma types as well as for the subgroup of children and adolescents with complex symptom presentations. Additionally significant improvements were found for both groups (CPTSD vs PTSD) in the follow-up period.

### **The German Child Protection Hotline for Medical Professions**

**Oliver Berthold, University of Ulm, Germany**

Despite promising approaches to strengthen child protection in Germany by standard nationwide regulations, qualitative interviews with medical professionals revealed that substantial insecurity and the need for counsel are present in cases of suspected child maltreatment. Moreover, possibilities for anonymous counsel by youth welfare services is widely unknown or considered inappropriate for physicians, psychotherapists and other medical professionals. Reasons for this are a need for round the clock accessible counsel by peers. One innovative approach is a 24/7 accessible telephone counsel by physicians which offers advice in all question of suspected maltreatment to medical professionals. Mr. Berthold is one of the helpline consultants and will present the idea behind this idea, which has already been recognized by the World Health Organization as a success story in the prevention of child maltreatment.

### **Assessment and Modification of Cognitive Processes in Trauma**

**Convenor: Marcella Woud, Ruhr-Universität Bochum, Germany**

**Chair: Rianne De Kleine, Leiden University, the Netherlands**

**Discussant: Thomas Ehring, Ludwig-Maximilians-Universität München, Germany**

### **Memory Centrality of a Distressing Event and its Relation with Posttraumatic Stress Symptoms: Correlation, Meditation or Causation?**

**Mirjam Vermeulen & Filip Raes, KU Leuven, Belgium**

**Julie Krans, KU Leuven, Belgium, and Radboud University Nijmegen and Pro Persona Overwaal, the Netherlands**

Event centrality refers to the extent to which a personal event in autobiographical memory serves as a reference point for other experiences, as a turning point in the life-story, and is integrated into components of personal identity. Research has shown that event centrality is positively related to symptoms of posttraumatic stress disorder (PTSD), however, the precise matter of this relation is still unknown. In a set of studies, we examined the relation between event centrality and PTSD symptoms and tested whether this relation was indirect, direct, or causal.

In the first study, we directly tested whether it is possible to experimentally decrease appraisals of event centrality using a CBM (Cognitive Bias Modification) application, to test the causal relation between event centrality and PTSD symptoms. The results showed that it was possible to decrease event centrality, however, symptoms of PTSD were unaffected. Additionally, it was shown that the link between event centrality and PTSD symptoms was mediated by posttraumatic cognitions and rumination.

In the second study, we measured event centrality during an intensive trauma therapy (including EMDR, exposure, physical exercise, and psycho-education) for patients with a severe trauma history. Results showed that both PTSD symptoms and event centrality decreased during the course of treatment.

Taken together, the results of these studies showed that event centrality and PTSD symptoms are closely related, however, a causal relation, where event centrality affected PTSD symptoms, could not be found. A possible explanation could be that, in contrast to earlier theories, the relation might be the other way around, where experiencing emotional arousal and intrusions related to the trauma can influence how central the traumatic event becomes. This could indicate that having appraisals of event centrality might be part of suffering from PTSD, and that simply trying to modify these cognitions may not be sufficient to change these symptoms. This is in line with the results of the patient study, where it was found that levels of event centrality decreased parallel to PTSD symptoms.

### **The Prospective Influence of Trait Alexithymia on Intrusive Memories**

**Alexandra Brückner, M. Roxanne Sopp, Monika Equit & Tanja Michael, Universität des Saarlandes, Germany**

Alexithymia is considered to be a relatively stable trait reflecting deficits in cognitive processing and regulation of emotions. These deficits are assumed to contribute to the onset of several psychiatric disorders, particularly to Posttraumatic stress disorder (PTSD). PTSD-patients suffer from fragmented uncontrollable memories (intrusive memories) whilst experiencing difficulties in intentionally retrieving details of the traumatic event. Recent research suggests that trait-related deficits in the identification of emotional states (alexithymia) may impact emotional memory processes in a way that promotes intrusion formation in PTSD. Therefore, we investigated the influence of alexithymia on intrusive re-experiencing in a prospective experimental analog study. Twenty-six healthy participants took part in a laboratory experiment, which exposed them to a traumatic film. Afterwards they were asked to record intrusive memories of the film clip. Individuals with higher trait alexithymia (HTA) reported an increased number of intrusions on the day of film presentation. The current findings provide first indications regarding the role of alexithymia in emotional memory formation and PTSD. Future studies should further investigate these associations as well as potential implications for the treatment of PTSD.

### **The Role of Appraisals About the Self or the World in Analogue Trauma**

**Marcella Woud, Ruhr-Universität Bochum, Germany**

**Julie Krans, Radboud Universiteit Nijmegen, the Netherlands**

**Felix Würtz & Simon Blackwell, Ruhr-Universität Bochum, Germany**

**Jan Cwik, Universität zu Köln, Germany**

**Jürgen Margraf, Ruhr-Universität Bochum, Germany**

Dysfunctional appraisals are a key factor suggested to be involved in the development and maintenance of PTSD. Research has shown that experimental induction of a positive or negative appraisal style via Cognitive Bias Modification-Appraisal (CBM-App) training following a laboratory stressor (e.g., trauma film paradigm) affects analogue posttraumatic stress symptoms, such as intrusions and intrusion distress. In these studies, trainings mainly targeted cognition related to the 'self'. The aim of the present study was to replicate and extend previous findings. Therefore, the effects of a training targeting cognitions related to the 'self' was compared with a novel training, i.e., a training targeting cognitions related to the 'world'. In the present study, all participants watched a stressful movie as an analog trauma induction. After that, participants received one of the 4 training conditions: positive self, negative self, positive world, or negative world. During the 7 days after the laboratory session, participants kept an intrusion diary to record their intrusions and distress arising from these intrusions. Further, at one-week follow-up, the Impact of Event Scale – Revised was applied to assess trauma-relevant symptomatology. In total, 174 participants have been enrolled and the data analyses is ongoing. The final results and the implication for the research field will be discussed during this presentation.

## **Changing Dysfunctional Interpretation and Appraisals in Posttraumatic Stress Disorder Through Cognitive Bias Modification: Results of a Randomized Clinical Trial**

**Rianne De Kleine, Leiden University, the Netherlands**

**Marcella Woud, Ruhr-Universität Bochum, Germany**

**Hannah Ferentzi, German Heart Centre Berlin, Germany**

**Gert-Jan Hendriks, Pro Persona and Radboud University, the Netherlands**

**Theo Broekman, Bureau Beta, the Netherlands**

**Eni Becker, Radboud University, the Netherlands**

**Agnes Van Minnen, Psytrec and Radboud University, the Netherlands**

Negative appraisals of the trauma and its sequelae play a crucial role in the development and maintenance of Posttraumatic Stress Disorder (PTSD; see for review Woud, Verwoerd, & Krans, 2017). Several studies in analogue trauma-samples have demonstrated the impact of Cognitive Bias Modification (CBM) on appraisal bias in analogue trauma samples (e.g. Woud, Zlomuzica, et al., 2018). The aim of the current study was to determine whether an online CBM training designed to modify dysfunctional appraisals is successful in reducing appraisal bias in a clinical sample of PTSD patients.

In this randomized clinical trial, 107 patients with PTSD were randomly allocated to active (n = 49) or control online CBM training (n = 57). The training consisted of four sessions online CBM training that had to be completed within one week. Our primary outcome was bias change, as assessed by a scenario task and questionnaire (i.e. Post-Traumatic Cognition Inventory, Foa et al., 1999). Secondary outcomes included change in PTSD symptoms. Participants completed assessments prior to training, during the training sessions, post training and at follow-up 1 and 6 months later.

Our findings indicated that there were no differences between conditions (active vs. control) over time. That is, regardless of training condition, participants showed a decline in bias from pre- to post-training and lower PTSD symptoms. In both conditions, bias change during training sessions was related to decline in PTSD symptomatology following training. We examined whether training effects were moderated by baseline patient characteristics (e.g. PTSD severity or trauma exposure), but failed to identify any moderators.

In conclusion, we found no evidence that active training was more effective than control training in reducing dysfunctional appraisals.

Notably, bias reduction during training sessions was related to PTSD symptom decline following training. In this presentation explanations for these study-findings as well as future research directions will be discussed.

## **Symposia 20: Therapeutic Processes**

### **Studying Processes of Change in Transdiagnostic Treatments – Current Evidence and Future Directions**

**Convenor: Johanna Boettcher, Freie Universität Berlin, Germany**

**Chair: Babette Renneberg, Freie Universität Berlin, Germany**

**Discussant: Babette Renneberg, Freie Universität Berlin, Germany**

### **Process-Based CBT: Theory and Implications for Treatment**

**Stefan Hofmann, Boston University, USA**

Cognitive Behavioral Therapy (CBT) has been an enormous empirical and practical success over its more than 50+ year history. The situation surrounding evidence-based care has dramatically changed, however, and it is important for CBT to change as well. For decades, evidence-based therapy has been defined in terms of scientifically validated protocols focused on syndromes. That era seems to be passing away and a new generation of evidence-based care has begun to move toward process-based CBT to target core mediators and moderators based on testable theories. This approach could have far-reaching implications for the theory and practice of psychotherapy. It might lead to a decline of named therapies defined by set technologies, a decline of broad schools, a rise of testable models, a rise of mediation and moderation studies, the emergence of new forms of diagnosis based on functional analysis, a move from nomothetic to idiographic approaches, and a move toward processes that specify modifiable elements. These changes might have the potential to integrate or bridge different treatment orientations, settings, and even cultures.

### **Personalized Psychotherapy. Prediction and Moderation of Improvement in Standard CBT Versus Transdiagnostic CBT for Emotional Disorders**

**Anita Eskildsen, Aarhus University Hospital, Denmark**

**Nina Reinholdt & Morten Hvenegaard, Mental Health Centre Copenhagen, Copenhagen University Hospital, Denmark**

**Mikkel Arendt, Aarhus University Hospital, Denmark**

**Anne Bryde Christensen, Psychiatric Hospital Slagelse, Region Zealand Mental Health Services, Denmark**

**René Brund, Aarhus University Hospital, Denmark**

**Sidse Arnfred, Psychiatric Hospital Slagelse, Region Zealand Mental Health Services, Denmark**

**et al.**

**BACKGROUND:** Almost half of patients with anxiety or depression do not respond substantially to cognitive behavioral therapy (CBT) and remission rates are even lower even though CBT is recommended as a first-line treatment for these disorders.

Therefore a relevant question is - How do we increase the proportion who respond to treatment? One approach is to predict which patients that will respond more favorable to one type of treatment over another followed by the development of a treatment selection algorithm.

**AIM** The present study examines pre-treatment patient characteristics as predictors and moderators of treatment outcome in diagnosis specific group CBT for unipolar depression, social anxiety disorder and agoraphobia/panic disorder versus transdiagnostic group CBT (The Unified Protocol for Transdiagnostic Treatment of Emotional disorders (UP); Barlow et al., 2012, 2017).

**METHODS:** The study is a partially blinded, pragmatic, non-inferiority, parallel, multi-center randomized controlled trial (RCT). In total, 292 patients were recruited from three regional mental health service (MHS) centers across Denmark and randomized to the two intervention arms. The primary outcome is patient-ratings of well-being (WHO Well-being Index, WHO-5) and is rated before treatment, every week during treatment (14 weeks) and again after treatment. Potential predictors and moderators examined are demographic variables, symptom

severity, daily functioning, personality, emotion regulation, mentalizing capacity and other clinical variables such as comorbidity and duration of the disorder.

**RESULTS:** The main results of the RCT are presented elsewhere. This presentation describes preliminary results concerning prediction and moderation of treatment outcome.

**PERSPECTIVES:** If we are able to develop a treatment selection algorithm using the identified predictors and moderators to predict which patients who will benefit the most from UP vs. diagnosis specific CBT, we will potentially increase the percentage of patients who respond to psychotherapy and thereby raise the number of patients who achieve remission and who will be able to be self-supporting. If we find that no baseline patient variables moderates the effect of the two treatments and that the effect of the treatments are equal, we will recommend that patients are offered UP since this treatment form has several logistic advantages.

### **Mechanisms of Change in Transdiagnostic Treatment**

**Morten Hvenegaard, University of Copenhagen, Denmark**

**Sidse Arnfred, University of Copenhagen, Denmark**

**Nina Reinhold, Region Hovedstadens Psykiatri, Denmark**

**Anita Eskildsen, Aarhus University Hospital, Denmark**

**Anne Christensen, University of Copenhagen, Denmark**

**Nicole Rosenberg, Region Hovedstadens Psykiatri, Denmark**

#### **Introduction**

This study investigates two potential mechanisms of change in transdiagnostic group CBT, namely emotion regulation and therapeutic alliance. It is not clear whether an increase of emotion regulation or therapeutic alliance during treatment cause a decrease in symptoms of depression and anxiety or vice versa. This study investigates of reverse causality by consecutively measuring the levels of emotions regulation, therapeutic alliance and symptoms of anxiety and depression.

#### **Method**

180 participants with emotional disorders from the TRACT-RCT study were treated for 14 weeks with group Unified protocol or group Cognitive Behavioural Therapy. Emotion regulation skills, therapeutic alliance and symptoms of anxiety were assessed with questionnaires weekly at each group therapy session. A Cross-Lagged Linear Model that allow for reciprocal causation is used to model the relationship between emotion regulation skills, therapeutic alliance and symptoms of anxiety and depression.

#### **Results**

Data collection will finish by April 2019. Data will be analysed and the results will be presented at the WCBCT 2019 in Berlin.

#### **Discussion**

A potential way to improve the efficacy of CBT and transdiagnostic CBT is to uncover the causal mechanisms of change and to modify the intervention to target these mechanisms of change. This study will provide insights in the timely relationship between two potential mechanisms of change, therapeutic alliance and emotion regulation.

### **About Dealing with Difficult Emotions: Mediators of Change in a Transdiagnostic, Internet-Based Treatment**

**Johanna Boettcher, Carmen Schaeuffele, Christine Knaevelsrud & Babette Renneberg, Freie Universität Berlin, Germany**

#### **Background**

The emotional disorders, including anxiety, depressive and somatic symptoms disorders, are highly comorbid. Two thirds of the patients meeting criteria for an anxiety disorder also fulfill the criteria of depression and vice versa. This high comorbidity can be explained by shared, transdiagnostic processes. Difficulties in dealing with strong emotions are one prominent example of transdiagnostic processes. The current study investigates changes in transdiagnostic processes in a 10-week therapist-guided internet-delivered intervention based on the Unified Protocol, a transdiagnostic treatment approach for the emotional disorders. We evaluate the mediating role of changes in mindfulness, cognitive flexibility, and emotion avoidance.

#### **Method**

In an RCT we compare the intervention with a wait-list-control group. We plan to recruit a total sample of N=180, including 60 participants with a primary diagnosis of depression, 60 with an anxiety disorder, and 60 with a somatic symptom disorder. Diagnoses are determined with a structured interview (ADIS) via telephone. Assessments of outcomes are at pre-, mid- and post-treatment, after each of the ten modules, as well as at 1-, 3- and 12-month follow-up. Mindfulness, cognitive flexibility, and emotion avoidance are assessed at pre-treatment and after the respective modules targeting these processes. Changes in process measures and subsequent changes in symptoms are subjected to mediation analyses.

#### **Results**

The study started in December 2018 and is currently ongoing (n=83 randomized). We will present first results of mediation analyses and will test whether improvements in the different aspects of dealing with difficult emotions lead to changes in mental distress. We will also explore the process-outcome relationship in different subgroups and for different outcome domains.

#### **Discussion**

Studying transdiagnostic interventions in an online setting offers the unique opportunity to investigate mediators of change across different disorders in a highly controlled setting. The current study allows us to test whether certain interventions evoke the proposed change in the assumed psychopathological processes and whether these changes are indeed associated with symptomatic improvement across the different domains of emotional disorders.

### **The HARMONIC Trial: A Transdiagnostic Modular Approach to Mood and Anxiety Disorders**

**Melissa Black, Caitlin Hitchcock, David Johnston, Anna Bevan & Peter Watson, Cambridge University, United Kingdom**

**Jill Newby, University of New South Wales, Australia**

**Willem Kuyken, University of Oxford, United Kingdom**

**Tim Dalgleish, University of Cambridge, United Kingdom**

Anxiety, mood and trauma-related disorders are common, affecting up to 20% of adults. Many of these individuals will experience symptoms of more than one disorder as diagnostically defined. Existing transdiagnostic treatments for emotional disorders are efficacious (Newby et al., 2015), but many packages are “one-size-fits-all” and tailored, modular packages may better address heterogeneity in presentations (Chorpita, Daleiden, & Weisz, 2005). The Healthy and Resilient Mind Programme: Building Blocks for Mental Wellbeing

(HARMONIC) trial introduces a novel transdiagnostic intervention (Shaping Healthy Minds (SHM)), which synthesises several evidence-based treatment techniques to address the gap in effective interventions for people with complex and comorbid difficulties. This early phase trial aims to estimate the efficacy and feasibility of the transdiagnostic intervention in preparation for a later-phase randomised controlled trial, and to explore mechanisms of change. We present the design for a patient-level two-arm randomised controlled trial (HARMONIC) that compares SHM to treatment-as-usual for individuals aged >18 years (N=50) with comorbid mood, anxiety, obsessive-compulsive or trauma/stressor disorder diagnoses, recruited from outpatient psychological services within the UK National Health Service (NHS). The co-primary outcomes will be 3-month follow-up scores on self-report measures of depressive symptoms, anxiety symptoms, and disability and functional impairment. Secondary outcomes include changes in symptoms linked to individual diagnoses. SHM has the potential to provide a more cost-effective and efficacious intervention for many individuals who experience significant impairment as the result of multiple mood, anxiety, and stress disorders, as well as reduce burden on therapists. This talk presents independent research funded by the National Institute of Health Research (NIHR) under its Research for Patient Benefit (RfPB) Programme (Grant Reference Number PB-PG-0214-33072). The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

## **Personalizing Psychotherapy for Depression and Anxiety Disorders: Prediction of Treatment Outcome and Drop-out Rates Using Novel Statistical Approaches**

**Convenor: Eva-Lotta Brakemeier, Philipps-University of Marburg, Germany**

**Chair: Marcus Huibers, Vrije Universiteit Amsterdam, the Netherlands, and University of Pennsylvania, USA**

### **Who Benefits More from Short-Term Psychodynamic Therapy than from CBT**

**Jürgen Hoyer & Jasmin Čolić, Technical University of Dresden, and the Sophonet Consortium, Germany**

Learning about inter-individual differences in treatment effects is a promising way to optimize differential indication and thereby the efficacy of treatment for the individual patient. In the present study, we use data from the multicenter randomized controlled trial of the Social Phobia Psychotherapy Network (SOPHO-NET; N = 495) to estimate the difference of the expected outcomes (i.e. post-treatment social anxiety) of two different therapies, CBT and short-term psychodynamic therapy (STPP), for each person.

Data from patients with social anxiety disorder, who had been randomized to either CBT (n = 209) or to STPP (n = 207) were analysed and the Personalized Advantage Index (PAI) was computed. A broad set of symptom and personality variables were included.

Results show that n = 39 of the patients randomized to CBT would benefit more from STPP, and that n = 185 of the patients originally randomized to STPP would benefit more from CBT. The average PAI was M = 14.62 (SD = 10.23) on the Liebowitz Social Anxiety Scale. Importantly, the PAI decreased strongly when the severity of disorder was considered. Those benefitting more from STPP were characterized by avoidance of close relationships, by better problem-solving competencies and by externalization with reference to self-evaluation. Patients who would benefit more from STPP exist, but this could only be demonstrated by relatively complex computational methods. Limitations for the potential transfer of our findings to clinical decision making in practice will be discussed.

### **Predicting Changes in Patients Suffering from Depression in Routine Clinical Care: A Bayesian Approach**

**Philipp Herzog, Philipps-University of Marburg, Germany**

**Ulrich Voderholzer, Schoen Clinic Roseneck, Germany**

**Matthias Feldmann, Dominik Endres & Winfried Rief, Philipps University of Marburg, Germany**

Despite varying effect sizes, the efficacy of psychological interventions for depression under controlled conditions (especially in RCTs) could on average be well demonstrated. However, not all patients with depression benefit from these psychological interventions. In addition, there are only a few large Phase IV studies that test effectiveness under natural conditions. The investigation of predictors and mechanisms of change often leads to inconsistent findings due to methodological limitations. The present naturalistic study will therefore investigate the short- and long-term effectiveness of a treatment for depression in routine care and identify its predictors and mechanisms of change. Patients with depression (N = approx. 20,500; N = approx. 7,500 in the follow-up 6 months after discharge) were treated with non-manualized CBT for an average of 43 days in five German psychosomatic clinics. The pre-post-FU effect sizes are calculated for various outcome variables. An independent component analysis was used to generate five components from demographic and clinical data. Further, conditional Bayesian factor analysis was used to extract factors from the available questionnaire data from pre-test, post-test and follow-up. Based on these factors and theoretical considerations, different probabilistic models were generated and tested against each other using Bayesian network analysis. In the context of current studies, the calculated effect sizes of this study will be classified in order to determine whether the treatment of depression can be effectively implemented in routine care. The most likely Bayesian model will be presented and discussed in the light of previous literature. Such probabilistic models for predicting changes offer the chance of (1) tailoring interventions at the beginning of treatment to the specific patients' needs, and (2) addressing mechanisms of change as adequately as possible during treatment to increase the short and long-term treatment outcome.

### **Predicting Optimal Acute and Long-Term Outcomes in Cognitive Therapy or Interpersonal Psychotherapy for Depressed Individuals Using the Personalized Advantage Index Approach**

**Marcus Huibers, Vrije Universiteit Amsterdam, the Netherlands, and University of Pennsylvania, USA**

**Zachary Cohen, University of Pennsylvania, USA**

**Lotte Lemmens & Suzanne Van Bronswijk, Maastricht University, the Netherlands**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

**Frenk Peeters, Maastricht University, the Netherlands**

**Pim Cuijpers, Vrije Universiteit Amsterdam, the Netherlands**

**Robert DeRubeis, University of Pennsylvania, USA**

Cognitive therapy (CT) and interpersonal therapy (IPT) are different therapies from distinct theoretical backgrounds, which implies they exert their effectiveness through different pathways, and possibly with differential effects in subgroups of patients. In this presentation, we focus on the analysis of predictors and moderators in the context of an RCT comparing CT and IPT (n=181). We found several moderators that predicted differential response to the two treatments, for both the acute phase of treatment and the long-term (sustained recovery and relapse). We then used the Personalized Advantage Index (PAI), recently developed by DeRubeis and colleagues, to combine these variables into an algorithm that generates actionable treatment recommendations for individual patients. For a majority of the trial participants, a



clinical meaningful advantage was predicted in either CT or IPT, compared to the other treatment. Moreover, those who were randomized to their predicted optimal treatment had far better outcomes than those randomized to their predicted non-optimal treatment, directly after treatment and in the longer term. We will discuss the implications of these findings for personalized treatment selection.

### **On the Way to Personalize Treatments: Using Network-Analysis to Improve Predictions of Dropout**

**Wolfgang Lutz, University of Trier, Germany**

**Aaron J. Fisher, University of California, Berkeley**

**Kristin Husen, University of Trier, Germany**

**Julian Rubel, University of Trier and University of Gießen, Germany**

**Aim:** There are large costs associated with attrition and dropout from psychological treatments. In clinical practice it is very helpful for therapists to have information about the dropout probability of a new incoming patient. In this presentation network analysis was used to improve personalized predictions of treatment attrition. **Methods:** Fifty-eight patients undergoing psychological treatment for mood or anxiety disorders were assessed using Ecological Momentary Assessments (EMA) four times a day for two weeks before treatment (3248 measurements). First, multilevel vector autoregressive models were used to compute dynamic symptom networks. Second, intake variables and network parameters (centrality measures) were used as predictors for dropout using machine learning algorithms. **Results:** Networks for patients differed significantly between completers and dropouts. Among intake variables, initial impairment and sex predicted dropout explaining 6% of the variance. The network analysis identified four additional predictors: Expected force of being excited, outstrength of experiencing social support, betweenness of feeling nervous, and instrength of being active. The final model with the two intake and four network variables explained 32% of variance in dropout and identified 47 out of 58 patients correctly.

**Discussion:** The findings indicate that patients' dynamic network structures, if replicated on larger datasets of EMA data, may improve the prediction of dropout. If replicated network predictions could be implemented into the Trier Treatment Navigator (TTN). But the small sample and the lack of a validation sample indicate the need for further prospective testing, before the model can be used in practice. Findings are discussed in the context of the ongoing debate on personalized prediction and clinical adaptation and problem solving models, especially for patients at risk for treatment failure or dropout.

### **New Directions in the Alliance Literature - Perspectives in Cognitive Behavioral Therapy**

**Convenor: Christoph Flückiger, University of Zürich, Switzerland**

**Chair: Christoph Flückiger, University of Zürich, Switzerland**

**Discussant: Robert DeRubeis, University of Pennsylvania, USA**

### **Predicting Personalized Process-Outcome Associations in Psychotherapy Using Machine Learning Approaches – A Demonstration**

**Julian Rubel, University of Trier, Germany**

**Aim:** Recently, much research investigated the within-patient effect of the therapeutic alliance on subsequent symptom change. While most of these studies reported a moderate within-patient alliance-outcome association, significant heterogeneity has been observed between patients. The current study searches for moderators that can explain these differences and tries to derive individual predictions using machine learning methods. **Methods:** A sample of 741 patients who underwent cognitive-behavioral therapy in an outpatient clinic is analyzed. For each of these patients, those who are most similar regarding the identified moderator variables are selected and used for an individualized prediction of the alliance-outcome association. **Results:** Correlations between the predicted and observed alliance outcome-associations are used to evaluate the validity of the prediction model. **Discussion:** Results are discussed in the context of psychometric feedback systems and personalized treatment recommendations.

### **Alliance, Ruptures and Repairs in CBT: Empirical Support and Reconsideration of Theory**

**Elad Zlotnick, Asher Strauss, Penina Twersky & Jonathan D. Huppert, The Hebrew University, Israel**

**Aim:** The therapeutic alliance is a well-established, consistent predictor of outcome in psychotherapy across many treatments and disorders. Recent studies have examined patterns of ruptures and repairs (R&R) in alliance and their association with treatment outcome. Until now, much of the research on ruptures and repairs has employed a single measure per session approach, measuring either pre-session or post-session alliance. Recent results have demonstrated that alliance changes differently within and between sessions, suggesting that measuring alliance both pre and post session would be more appropriate. This new approach allows for a closer examination of R&R processes, differentiating between within and between session occurrences. The current study compares different models for the prediction of treatment outcome according to several definitions of ruptures and repairs. **Methods:** A sample of 65 patients underwent cognitive-behavioral therapy for either social anxiety (N=34) disorder or panic disorder (N=31). Pre-session and post-session data of the therapeutic alliance and outcome measures were collected. R&R repairs were measured according to several criteria either taking the more frequent measurement into account or not. These measures were then used to predict outcome using longitudinal multi-level modeling. Models were compared using information criteria. **Results:** Within and between session ruptures were unrelated to post to post measures of ruptures, regardless of defined rupture magnitude. Models differentiating between within-session and between-session ruptures will be compared to models examining post to post ruptures in terms of their relationship to outcomes in panic and social anxiety. **Discussion:** Most research into alliance processes has put the major emphasis into processes occurring within therapeutic sessions. Our results indicate that significant processes occur between sessions as well. We therefore propose that further theoretical as well as empirical study should be done to understand these intra session processes.

### **Is the Therapeutic Alliance Distinct from Therapist Competence in Predicting Outcomes in Cognitive Behavior Therapy for Depression?**

**Nikolaos Kazantzis & Scott Pennay, Monash University, Australia**

**Sona Dimidjian, University of Colorado, USA**

**Keith Dobson, University of Calgary, Canada**

**Aim:** Prior studies of therapist competence-outcome relations have produced inconsistent results. Studies that control for the alliance produce smaller effect sizes raising the question of whether these constructs are independent in their prediction of symptom change (Webb, DeRubeis, & Barber, 2010). In this research, we compared both (a) alliance and competence inter-relations, and (b) alliance and competence-

outcome relations in Behavioral Activation Therapy (BAT) and Cognitive Behavior Therapy (CBT) for depression using session recordings and clinical data from completed NIMH-funded trials. Methods: 107 patient-therapist dyads who met inclusion criteria (age  $M = 37.9$ ,  $SD = 8.6$ ; 73.8% female) were randomly assigned to 20 sessions of BAT or CBT delivered over a 16-week period. Sessions were assessed with the Cognitive Therapy Scale in the CBT condition (Young & Beck, 1979) and the Quality of Behavioral Activation Scale in the BAT condition (QBAS: Dimidjian et al., 2018), along with the short revised version of the Working Alliance Scale (WAI-SR-O: Kazantzis, Cronin, Farchione, & Dobson, 2018). In Study 1, we established inter-rater reliability with alliance and competence scales, then used multitrait-multimethods to examine discriminant validity of competence and alliance measures at sessions 3 and 6 in BAT and CBT. We also conducted an initial test of whether the relationship between therapist competence and treatment outcome is mediated by working alliance. In Study 2, we conducted a more comprehensive study with expanded data collection at sessions 1 and 12, to determine whether therapist competence in CBT would predict reduced depressive symptomatology in the subsequent session, at early and late phases of CBT, through the indirect effect of alliance. Results: Study 1 revealed a large overlap between measures of therapist competence and working alliance as depicted by their low discriminant validity, and a significant mediation effect of working alliance on this relationship in both treatment conditions (CBT:  $\beta = -.31$ , 95% PBoot CI[-.42, .06], BAT:  $\beta = -.54$ , 95% PBoot CI[-.59, .01]). Study 2 found that when accounting for baseline depression levels, increased competence at session 1 indirectly predicted reduced depressive symptoms at the next session, exclusively mediated by alliance ( $\beta = -.17$ , 95% PBoot CI[-.32, -.01]). Conclusions: Results are discussed in the context of conceptual definitions between alliance and therapist competence in BAT and CBT.

### **The Alliance in Adult Psychotherapy: Meta-Analytic Synthesis**

**Christoph Flückiger, University of Zürich, Switzerland**

**Aaron C. Del Re, Naval Health Research Center, USA**

**Adam O. Horvath, Simon Fraser University, Canada**

**Bruce E. Wampold, Modum Bad Psychiatric Center, Norway**

The alliance continues to be one of the most investigated variables related to success in psychotherapy irrespective of theoretical orientation. The aim of the present meta-analytic synthesis is to investigate the potential relevance of the alliance across disorder-specific arguments. Methods: To locate research in psycINFO and PSYNDEX database resulted in a total of 306 manuscripts that included 295 independent samples. The relation of the alliance and treatment outcome was investigated using a three-level meta-analysis with random-effects restricted maximum-likelihood estimators.

Results: Overall, there were 1465 reported alliance–outcome relations, representing around 30000 clients/therapies with a mean of 100 clients per study. The overall weighted average (omnibus) effect size (ES), was  $r = .278$  (95%CI= .256 to .299;  $p < .0001$ ). Our results indicated there were no statistically significant differences between zero-order and partial-correlations ( $Q(1) = 1.651$ ;  $p = .199$ ) that adjusted for intake severity and related early change, indicating that the potential covariates did not reduce the magnitude of the alliance and outcome relationship ( $k = 66$ , for zero-order correlations  $r = .25$ , for partial-correlations  $r = .22$ ). This relation remains consistent across assessor perspectives, alliance and outcome measures, disorderspecific treatment approaches, patient characteristics/disorders, and countries. Conclusions. The accumulated volume of research on the alliance is impressive. It is among the richest bodies of empirical research on a therapy process available in the psychotherapy literature. Alliance research indicates that collaborative practice has a positive impact on outcome.

### **Physical Exercise as an Add-on Strategy for Cognitive Behavioral Therapy in Anxiety and Depressive Disorders**

**Convenor: Stephan Heinzl, Freie Universität Berlin, Germany**

**Chair: Andreas Ströhle, Charité Universitätsmedizin Berlin, Germany**

#### **Combining CBT and Exercise Training in Anxiety Disorders**

**Andreas Ströhle, Charité Universitätsmedizin Berlin, Germany**

Abstract of individual paper

Exercise training has anxiolytic, antidepressant but also cognitive enhancing effects. In the treatment of anxiety disorders different therapeutic effects of exercise might be used: direct anxiolytic effects but also cognitive enhancing effects supporting cognitive changes induced by psychotherapy. More specifically, exercise might also increase the effectiveness of exposure therapy in phobic disorders, as has been suggested for D-cycloserine. We review the literature on the combination of psychotherapy and exercise training in anxiety disorders and present own data of two RCT's which have been performed by our research group. In conclusion, combining CBT and exercise training might be one possibility to further improve the effectiveness of CBT in patients with anxiety disorders. However, the effects are mild to moderate and the question arises how to further increase the effectiveness.

#### **Physical Exercise Augmented Cognitive Behaviour Therapy for Older Adults with Generalised Anxiety Disorder – Scientific Rationale, Study Protocol, and Preliminary Findings for the Pexacog Trial**

**Anders Hovland, Solli District Psychiatric Centre and University of Bergen, Norway**

Physical exercise augmented cognitive behaviour therapy for older adults with generalised anxiety disorder – Scientific rationale, study protocol, and preliminary findings for the Pexacog trial.

Kristine Sirevåg 1, 2, Silje Haukenes Stavestrand 1, 2, Inger Hilde Nordhus 1,3, Trond Sjøbo 2, Trygve Bruun Endal 2, Hans M. Nordahl 4, 9, Karsten Specht 1, Åsa Hammar 1, Anne Halmøy 5, 11, Egil W. Martinsen 3, 10, Eva Andersson 6, Helene Hjelmervik 1, Jan Mohlman 7, Julian F. Thayer 8, and Anders Hovland 1, 2.

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Generalised anxiety disorder (GAD) is a severe and frequently occurring anxiety disorder, with peak prevalence in the second half of life. GAD also increases the risk for both other mental disorders and somatic conditions, including depression and coronary heart disease. The

disorder has a chronic course if untreated, and the societal costs of GAD have been demonstrated to be substantial. As recommended treatments have been found to be less efficacious for older adults, treatment development has focused on augmenting the effects of existing interventions such as cognitive behaviour therapy (CBT). Physical exercise has a strong scientific rationale for improving the effects of CBT, as it has the potential to offset age-related cognitive changes and reliably increases the levels of neurotrophins that have been shown to be predictive of the outcomes of CBT for anxiety. 18 participants, from a projected sample of 70 older adults aged 60–75 years with a primary diagnosis of GAD have so far been included and randomised to CBT combined with either physical exercise or telephone support. Primary outcome measure is the Penn State Worry Questionnaire. Secondary measures include patient-rated outcome measures, clinical interviews, neuropsychological measures, and physiological and biological measures including functional magnetic resonance imaging, heart rate variability, and levels of neurotrophic factors. Details of the recently published protocol and the scientific rationale will be presented in detail. Preliminary findings, adherence, challenges, and experiences related to the implementation and execution of the study will be presented and discussed.

#### **Neurobiological Mechanisms of Physical Exercise and CBT in Depressive Disorders – Preliminary Results from the SPeED Project**

**Stephan Heinzel, Melanie Schwefel, Christian Kaufmann & Romy Henze, Freie Universität Berlin, Germany**

**Gunnar Kallies, Charité - Universitätsmedizin Berlin, Germany**

**Thomas Fydrich, Humboldt-Universität zu Berlin, Germany**

**Andreas Ströhle, Charité - Universitätsmedizin Berlin, Germany**

**Andreas Heißel, Universität Potsdam, Germany**

As indicated by recent meta-analyses, endurance exercise has an anti-depressive effect in patients suffering from major depressive disorder (MDD). Thus, exercise may serve as an effective add-on treatment to cognitive behavioral therapy (CBT) in MDD. Since neurobiological mechanisms of exercise and CBT have been scarcely investigated to date, the main aim of the current project “SPeED” was to test the effects of endurance exercise in combination with CBT on a neurobiological level in MDD for the first time. Currently, 105 patients with MDD have been included in the study and first preliminary results can be presented. Thus, MDD was associated with performance deficits and reduced neural activation in prefrontal and parietal areas during the performance of a working memory task when compared to healthy controls. Neural activation in these brain regions was related to the amount of physical activation. Furthermore, preliminary results of intervention-induced changes in brain activation and in blood serum levels of the brain-derived neurotrophic factor will be presented and discussed.

#### **Exercise for Depression in Health Care Services: The STEP.De Project**

**Andreas Heißel, University of Potsdam, Germany**

**Stephan Heinzel, Freie Universität Berlin, Germany**

**Anou Pietrek, Melanie Schwefel & Kaharjan Abula, University of Potsdam, Germany**

**Gregor Wilbertz, Freie Universität Berlin, Germany**

**Michael Rapp, University of Potsdam, Germany**

Although exercise therapy has widely been proven an efficacious treatment modality for mild to moderate depression with moderate to large effect sizes, evidence for the effectiveness and cost-efficiency of exercise therapy from pragmatic randomized controlled trials to facilitate the translation of clinical trial results to routine practice has been missing. The STEP.De (Sport/ Exercise Therapy for Depression) study is a multi-center cluster-randomized effectiveness trial that aims to compare the effectiveness and cost-efficiency of exercise therapy and psychotherapy in the treatment of major depressive disorder (MDD) within 480 patients (aged 18-65). Results could provide key information for the integration of exercise therapy into standard health care services as a low-threshold, easily accessible treatment for depression.

#### **Physical Activity and Exercise and Common Mental Disorders: An Overview of Preventative and Therapeutic Evidences**

**Felipe Schuch, Universidade Federal de Santa Maria, Brazil**

Common mental disorders, including depression, generalized anxiety disorder (GAD), panic disorder, phobias, social anxiety disorder, obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD), are chronic, highly prevalent, and disabling disorders. By 2030, common mental disorders are expected to be the main cause of disability worldwide, highlighting the need of preventative and therapeutic strategies. The etiology of common mental disorders is poorly understood, although some modifiable and non-modifiable, risk and protective factors have been proposed. Among the modifiable risk factors, a robust body evidence has found that physical activity is a protective factor against depression and anxiety offspring. People with higher levels of physical activity can achieve 35% less risk of developing depression and 25% of developing anxiety. These protective effects can be seen regardless age, sex or geographical locations. Moreover, robust evidence suggests that exercise, the structured subset of physical activity, should be considered as a complementary therapeutic strategy for people with depression and anxiety disorders. The effects of exercise in reducing symptoms of depression in people with depression are large, while a moderate effect is seen on anxiety symptoms in people with anxiety disorders. The present session will discuss the recent meta-analytic findings on the role of physical activity as a preventative and therapeutic strategies, as well, the potential psychosocial and neurobiological mediators of these effects.

## **Efficacy of Imagery Rescripting as a Transdiagnostic Intervention**

**Convenor: Fortesa Kadriu, Katholieke Universiteit Leuven, Belgium**

**Chair: Julie Krans, Radboud University, the Netherlands**

**Discussant: Arnoud Arntz, University of Amsterdam, the Netherlands**

### **Imagery Rescripting Versus STAIR/Imagery Rescripting for PTSD Related to Childhood Abuse: A Randomized Controlled Trial**

**Sandra Raabe, University of Amsterdam, the Netherlands**

**Thomas Ehring, LMU Munich, Germany**

**Arnoud Arntz, University of Amsterdam**

**Marquenie Loes, Arkin Amsterdam, the Netherlands**

**Kindt Merel, University of Amsterdam, the Netherlands**

A recent randomized controlled trial examined two main questions: 1) what is the efficacy of Imagery Rescripting (ImRs) as stand-alone treatment for patients with complex PTSD related to childhood abuse, and 2) does the addition of a skills training in emotion and interpersonal regulation (STAIR) as a preparatory phase prior to the ImRs-treatment phase enhance the treatment effect for PTSD-symptoms. This presentation provides data on a comparison of ImRs as stand-alone treatment compared to the sequential treatment (STAIR/ImRs) and to a waitlist control group. Data consist of single-blind obtained interview-based measures for PTSD, and self-report measures for PTSD-symptoms, emotion regulation, and interpersonal functioning. Assessments were conducted at pre-/post and 3-month follow-up. Results will be presented and implications of the findings will be discussed.

### **The Effect of Using Imagery Rescripting of Autobiographical Memories Versus Imagery Rescripting of Intrusive Images in Core Beliefs and Eating Disorder Symptoms**

**Fortesa Kadriu, Katholieke Universiteit Leuven, Belgium**

**Laurence Claes, KU Leuven, Belgium**

**Cilia Witteman & Julie Krans, Radboud University, the Netherlands**

Research indicates that intrusive images are a prominent feature in eating disorders (ED) and may be a core maintaining mechanism. Intrusive images have been linked to early (childhood) memories and core beliefs. It is proposed that intrusive images may maintain psychopathology because they represent self-images associated with previous negative experiences, which include the activation of negative self-beliefs and goals that try to avoid the threat represented by the intrusive image. The objective of the research is to investigate the effect of imagery rescripting (ImRs) of intrusive image and early autobiographical memories on core beliefs and eating disordered behaviors. Participants were randomly allocated to one of three conditions: ImRs of intrusive images, ImRs of negative autobiographical memories and a non-imagery manipulation (a no task control). Participants in the first two conditions identified either an intrusive image or a negative memory associated with their disordered eating, rated it on sensory and emotional characteristics and described the meaning (belief) they associated with the image or the memory. Then, they received a 9-minute ImRs intervention (a self-guided ImRs protocol via PC) in the lab and for the next 6 days online. They indicated subjective distress during the intervention. After the intervention they rated the original and the rescripted image or memory on sensory and emotional characteristics. All participants completed questionnaires on eating disorder symptoms and core beliefs, and attended a follow-up testing after one week. During this talk I will present the preliminary data of the study. It is expected that both ImRs manipulations will result in greater reductions in all outcome measures (i.e., intrusive image/autobiographical memory characteristics, core beliefs and ED symptoms) compared to the control group, because ImRs should change the meaning of the image to a more positive one whereas the control group should not change the image content.

### **Imagery Rescripting for the Treatment of Trauma in Voice Hearers: A Case Series**

**Craig Steel, University of Oxford, United Kingdom**

**Georgie Paulik, Perth Voices Clinic, University of Western Australia**

**Craig Steel, Oxford University, United Kingdom**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

**Background:** The use of imagery based interventions for people diagnosed with a psychotic disorder has, to date, attracted little empirical investigation. Further, despite a documented link between trauma and voices, there have been no randomized controlled trials (RCTs) of psychological trauma interventions in this transdiagnostic population. High dropout rates in RCTs of prolonged exposure in psychosis have been linked to anxiety around reliving the hot parts of trauma. We were interested to overcome this potential barrier by conducting a case series using Imagery Rescripting (ImRs) which does not require the individual to reexperience the most intense part of the memory for a prolonged time. The primary aims of this study are twofold: (1) to investigate whether ImRs reduces PTSD symptoms in voice hearers; and (2) to investigate whether voice hearers report a reduction in voice frequency or distress following the ImRs treatment.

**Methods:** A single arm open trial study, case-series design, was used with brief weekly assessments (administered sessions 1-8, post-intervention, and 3-month follow-up) and 3 assessment points for longer measures: pre-intervention, mid-intervention, post-intervention. Twelve voice hearing participants with previous trauma that was thematically related to their voices who presented for psychological therapy at Perth Voices Clinic participated. There was one treatment dropout.

**Results:** Linear mixed model regression analyses were used to analyze the results. Results of the weekly measure showed significant linear reductions over time in all three primary variables - Voice Distress, Voice Frequency, and Trauma Intrusions - all with large effect sizes. On the full assessment tools, all measures showed improvement over time, with five outcomes showing significant time effects: trauma, voice frequency, voice distress, voice malevolence and stress.

**Conclusion:** The findings of the current study provide initial support for the use of ImRs to be used to treat trauma and distressing voices.

### **The Effects of Imagery Rescripting Versus Extinction on Return of Fear**

**Mandy Woelk, KU Leuven, Belgium and Utrecht University, the Netherlands**

**Julie Krans, KU Leuven, Radboud University and Pro Persona Overwaal, the Netherlands**

**Filip Raes & Bram Vervliet, KU Leuven, Belgium**

**Muriel Hagenaars, Utrecht University, the Netherlands**

Anxiety disorders are effectively treated with exposure therapy, but relapse rates are substantial. Exposure therapy consists of gradually exposing patients to the feared situations until the fear declines. The lab model for exposure is extinction learning, in which the absence of the expected aversive outcome produces novel safety learning that counters the fearful expectations (i.e., expectancy learning). Hence, the expectancy of the aversive outcome is adjusted, but not the valence of the (imagined) aversive outcome itself. This lack of evaluative learning (changing US valence instead of US expectancy) may be responsible for relapse after successful exposure therapy. Imagery Rescripting (ImRs) is an intervention that is proposed to work by evaluative learning, i.e., changing the meaning or representation of the feared event. During ImRs, the ending of an aversive memory is changed into a more positive one using mental imagery. The aim of our study was to test the effects of ImRs and extinction on threat-expectancy and threat-evaluation indicators, and on return of fear in a laboratory setting. We hypothesize that a combination of ImRs and extinction might be the most optimal intervention, targeting both revaluation of the feared event and expectancy learning. We used a three-day fear conditioning paradigm. An emotional memory was formed on the first day (acquisition). The manipulation (ImRs + extinction, extinction-only, ImRs-only) took place on the second day. Tests for spontaneous recovery and reinstatement were executed on the third day. Preliminary results will be shown during the presentation. The study is expected to yield insights into the working mechanisms of ImRs and of its combination with extinction, thereby informing clinical practice on how to possibly improve treatment for anxiety disorders and reduce relapse rates.

### **Recent Advances in Predicting and Treating Suicidality**

**Convenor: Birgit Kleim, University of Zurich, Switzerland**

**Chair: Gysin-Maillart Anja, University of Bern, Switzerland**

#### **Testing the Main Prediction of the Interpersonal–Psychological Theory of Suicidal Behavior in an Inpatient Sample Admitted Due to Severe Suicidality**

**Tobias Teismann, Ruhr University Bochum, Germany**

**Heide Glaesmer, University of Leipzig, Germany**

**Laura Paashaus, Ruhr-Universität Bochum, Germany**

**Dajana Rath, Universität Duisburg-Essen, Germany**

**Antje Schönfelder, University of Leipzig, Germany**

**Georg Juckel, LWL-University Hospital and Ruhr-Universität Bochum, Germany**

**Thomas Forkmann, Universität Duisburg-Essen, Germany**

The interpersonal-psychological theory of suicidal behavior posits that two proximal, causal and interactive risk factors must be present in order for someone to desire suicide: perceived burdensomeness and thwarted belongingness. The development from active suicidal desire to suicidal intent is said to result through the presence of an additional third construct: capability for suicide, i.e. fearlessness of death and dying, as well as elevated pain tolerance. In the current study the main prediction of the Interpersonal Theory of Suicide (ITS) was examined: Does the three-way-interaction of perceived burdensomeness (PB), thwarted belongingness (TB), and capability for suicide (CS) predict a recent suicide attempt as well as lifetime number of suicide attempts in an inpatient sample admitted due to severe suicidality. A total of N=202 inpatients (52.3% female, age: M= 36.73, SD= 13.29) completed measures of TB, PB, CS, depression and hopelessness as well as an interview on lifetime suicide attempts. It was shown that the three-way interaction of TB, PB and CS was not predictive of recent suicide attempt status and only a marginally significant predictor of lifetime suicide attempts. However, PB was a significant predictor of recent attempt status and lifetime suicide attempts. The results challenge the clinical utility of employing the interpersonal theory - in its current form - to predict and assess suicide risk. Yet, findings underscore the importance of perceived burdensomeness in understanding suicidality.

#### **Kurztherapie für Patienten nach Suizidversuch ASSIP (Attempted Suicide Short Intervention Program) Ergebnisse über die Effektivitätsstudie hinaus**

**Anja Gysin-Maillart, University of Bern, Switzerland**

After a suicide attempt, the risk of a later suicide is increased significantly and remains high for years. Treatment of this high-risk group is difficult, because patients often do not feel ill but experience shame or guilt. Effective treatment for people who have attempted suicide is therefore a top priority. ASSIP (Attempted Suicide Short Intervention Programme) is a short therapy for patients after a suicide attempt, which has shown to reduce suicidal behaviour. ASSIP is based on the concept of action theory, which defines suicide and suicide attempts as actions, not as symptoms of a psychiatric disorder. Suicide can appear as a solution, if important life-goals or needs are threatened. Within 3-4 sessions, an early therapeutic relationship is established as an important preventive factor in dealing with the suicidal patient, and the relationship is maintained by sending follow-up letters. The background of the suicidal crisis is clarified; important individual warning signs and a personal crisis plan in case of suicidal risk are developed. But what makes this short therapy effective? Results beyond the randomized controlled trial will be presented.

#### **Sleep is Neglected in Evidence-Based Psychological Interventions for Suicidality: A Systematic Review**

**Dominique Recher & Marianne Rizk, University of Zurich, Switzerland**

**Sebastian Olbrich & Erich Seifritz, University Hospital of Psychiatry, Psychotherapy and Psychosomatics, Switzerland**

**Michael Nadorff, Mississippi State University, USA**

**Birgit Kleim, University Hospital of Psychiatry, Psychotherapy and Psychosomatics and University of Zurich, Switzerland**

##### **Introduction**

A growing body of literature reports significant and consistent associations between sleep disturbances and/or nightmares and suicidal ideation and suicidality. Prospective studies have assigned a seminal role to sleep disturbances and/or nightmares in predicting suicidality

(e.g. Bernert, Turvey, Conwell, & Joiner, 2014; Nadorff, Nazem, & Fiske, 2011). The current review aimed to identify whether (i) current evaluations of psychological treatments of suicidality assessed sleep and/or whether (ii) sleep was included as part of a psychological treatment module.

#### Methods

Studies were included if they met, among others, the following inclusion criteria: (i) participants are randomly assigned to the intervention or control group; (ii) participants are 18 years or older; (iii) either the aim of the provided treatment is to specifically target suicidal tendencies or the included participants report acute suicidal tendencies and/or have reported suicidal tendencies within the last 6 months prior to inclusion in the study; (iv) in order to further specify the treatment, the treatment offered should be a psychological intervention and include at least one face-to-face session. We coded studies whether they included (i) an assessment of sleep and/or (ii) sleep as part of a psychological treatment module.

#### Results

Preliminary results show that out of 18 studies no study included an assessment of sleep. One study recorded the intake of sleep medications, but did not include a sleep assessment (Rudd et al., 2015). Only few studies were identified that included a sleep-related module as part of the treatment program of suicidality, but this was not evaluated specifically and sleep not indexed in these studies.

#### Discussion

Sleep disturbances, in particular insomnia and nightmares, are a risk factor for suicidal ideation and behaviour. Despite these findings, results of this review suggest that sleep is largely neglected in current evidence-based psychological treatments of suicidality. Future studies should include assessments of sleep to index changes during treatment in this key process, as well as efforts to include treatment modules that target sleep and nightmares. There is evidence that treatments that target sleep (and are not focused on suicidal ideation) are in fact effective in reducing suicidal ideation and behavior (e.g. Trockel, Karlin, Taylor, Brown, & Manber, 2015).

### **Group Intervention after Suicide Bereavement Through the Use of Webinars: A Randomized Controlled Trial**

**Birgit Wagner & Laura Hofmann, Medical School Berlin, Germany**

**Introduction:** The death of a significant person through suicide is a very difficult experience and can have long-term impact on an individual's psychosocial and physical functioning. However, there are only few studies, which have examined the effects of interventions in suicide survivors. In the present study, we examined a web-based group intervention for people bereaved by suicide using a group-webinar. **Methods:** The 12-module webinar-based group intervention was based on CBT and focused on suicide bereavement related themes such as feelings of guilt, stigmatization, meaning reconstruction and the relationship to the deceased. The webinar included testimonial videos and psychoeducation. The suicide survivors were randomized to the intervention or the waiting- list in a group cluster randomized controlled trial. Primary outcome were symptoms of prolonged grief disorder (ICG-D), secondary outcomes are depression (BDI-II) and PTSD (IES-R). **Results:** Currently three groups are assigned to the RCT and pilot data will be presented in this presentation. **Discussion:** Previous studies of internet-based interventions for the bereaved were writing interventions showing large treatment effects. Little is known about the use of webinars as group interventions. Advantages and challenges of this novel approach of psychological interventions will be discussed.

### **No Pain, No Gain? Are Negative Effects an Inevitable Part of Psychotherapy?**

**Convenor: Jan Philipp Klein, University of Lübeck, Germany**

**Chair: Ger Keijsers, Radboud University Nijmegen, the Netherlands**

### **Assessing the Unwanted: Detecting and Monitoring Negative Effects of Psychological Interventions**

**Philipp Herzog & Eva-Lotta Brakemeier, Marburg University, Germany**

While the efficacy of psychological interventions in the treatment of mental disorders has been well studied for decades, systematic research into side effects of psychological interventions seems comparatively rare. This may also be because there is (1) no internationally established consensual definition, and (2) no recognized instrument that is used worldwide as a 'gold standard'. Thus, within the framework of a systematic review, existing instruments for recording negative effects of psychological interventions were examined with regard to their similarities and differences. The study selection process followed the current best practice guidelines for systematic reviews. In three databases (PsycInfo, PubMed, Web of Science), ten studies could be identified. The nine instruments described therein were critically examined with regard to their theoretical orientation, their psychometric characteristics and their diagnostic considerations. Seventeen areas associated with negative effects of psychological interventions were identified, but these areas were not assessed consequently across the nine instruments. Most instruments provided only initial data on their psychometric properties. Different item-response formats were used for diagnostic considerations, but attribution to therapy was often asked, indicating that this feature seem to be a crucial factor. The systematic review shows that the existing instruments for assessing negative effects of psychological interventions cover a broad spectrum of relevant areas without reaching a consensus on the most important ones. Their psychometric characteristics are usually unsatisfactory. Therefore, a consensual definition and conceptualization of negative effects is proposed, from which recommendations for improving its assessment are derived that may be useful for future research. Based on the findings of this review, a new assessment instrument was developed and validated in an expert group, which focuses on the monitoring of side effects. The results of this validation study are finally presented. In the long run, this instrument may be used as a process scale in the course of psychological interventions in research and practice.

## **The Negative Effects Questionnaire: Psychometric Properties of an Instrument for Assessing Negative Effects in Psychological Treatments**

**Alexander Rozental, Karolinska Institutet, Sweden**

**Anders Kottorp, Malmö University, Sweden**

**David Forsström, Stockholm University, Sweden**

**Kristoffer Månsson, Karolinska Institutet, Stockholm**

**Johanna Boettcher, Freie Universität Berlin, Berlin, Germany**

**Gerhard Andersson, Linköping University, Sweden**

**Tomas Furmark, Uppsala University, Sweden**

**Per Carlbring, Stockholm University, Sweden**

Background: Psychological treatments provide many benefits for patients with psychiatric disorders, but research also suggest that negative effects might occur from the interventions involved. The Negative Effects Questionnaire (NEQ) has previously been developed as a way of determining the occurrence and characteristics of such incidents, consisting of 32 items and six factors. However, the NEQ has yet to be examined using modern test theory, which could help to improve the understanding of how well the instrument works psychometrically. Aims: The current study investigated the reliability and validity of the NEQ from both a person and item perspective, establishing goodness-of-fit, item bias, and scale precision. Method: The NEQ was distributed to 564 patients in five clinical trials at post-treatment. Data was analyzed using Rasch analysis, i.e., a modern test theory application. Results: 1) the NEQ exhibits fairness in testing across sociodemographics, 2) shows comparable validity for a final and condensed scale of 20 instead of 32 items, 3) uses a rating scale that advances monotonically in steps of 0-4, and 4) is suitable for monitoring negative effects on an item-level. Conclusion: The NEQ is proposed as a useful instrument for investigating negative effects in psychological treatments, and its newer shorter format could facilitate its use in clinical and research settings. However, further research is needed to explore the relationship between negative effects and treatment outcome, as well as to test it in more diverse patient populations

## **Care Dependency in Psychotherapy: Results of a Longitudinal Study of Patients with Personality Disorders**

**Naline Geurtzen, Radboud University Nijmegen, the Netherlands**

Patients' dependency is often described to be a major risk for patients in mental health care. However, different views to patients' dependency can be distinguished: The trait approach (i.e., stable patterns of dependency during treatment), versus the contextual approach (i.e., changes). Moreover, both negative and positive effects of patients' dependency have been suggested. Thus, two research questions were studied: Do levels of care dependency change over time during treatment? And do patients' care dependency levels relate to symptom reduction, and patients' wish for treatment continuation at the end of treatment? In total 113 patients with personality disorders receiving intensive treatment participated in this longitudinal study. Patients' care dependency was repeatedly measured with the Care Dependency Questionnaire (subscales: Submissive Stance, Need for Contact, and Lack of Alternatives). We also examined patients' self-perceived dependency, severity of psychopathology and personality problems, and patients' wish to continue treatment. Results showed significant increases in patients' need for contact with their therapist over the course of treatment, supporting the contextual approach. However, decreases were found over the course of treatment regarding patients' lack of alternatives and patients' self-perceived dependency on the treatment, suggesting that patients became less dependent over time. Patients' submissive stance remained stable. Moreover, decreases in patients' lack of alternatives and self-perceived dependency were related to a larger reduction in symptoms and personality problems, suggesting beneficial effects of a decreasing dependency. Last, all subscales of care dependency, plus patients' self-perceived dependency, were related to patients' stronger wish to continue their treatment when treatment termination came into sight, suggesting that higher levels of self-perceived dependency may lead to prolonged treatment duration. Implications of these findings and limitations of the current study are discussed.

## **The iCARE\*MDD-Study: Investigating Care Dependency and Its Relation to Outcome in Patients with Depressive Disorders**

**Sarah Glanert, Ana-Sofia Moncada Garay, Sophie Tschepe, Elisa Brinkmann & Jan Philipp Klein, Lübeck University, Germany**

Background: Recently, negative effects of psychotherapy have received increasing attention. One putative negative effect is that patients develop Dependency towards their therapist (hereafter termed "Care Dependency"). In this naturalistic study, we examined Care Dependency and its relation to outcome in the course of a specialized treatment program for depression. Hypotheses: We wanted to explore (a) the course of Care Dependency and hypothesize (b) that a higher degree of Care Dependency at the end of treatment is associated with a less favourable outcome and, (c) that Care Dependency is higher when patients are treated with CBASP (Cognitive Behavioral Analysis System of Psychotherapy) compared to MCT (Metacognitive Therapy). Methods: We recruited 99 patients who participated in a specialized six week treatment program for depression. The focus of treatment was either CBASP or MCT. The focus of treatment was chosen based on the diagnosis, the presenting complaints and the preference of the patient. In both treatment foci, participants received 7 individual therapy sessions and additional group therapies (either CBASP or MCT). Patients completed multiple questionnaires during the treatment to measure symptom course (Quick Inventory of Depressive Symptomatology Self Rating, Hamilton Rating Scale for Depression 6 Item Scale) and Care Dependency (Care Dependency Questionnaire) as well as other measures such as Negative Effects Questionnaire, Social Functioning 12, Metacognition Questionnaire 30, Social Support Questionnaire. Results: Findings indicate (a) a rather stable course of Care Dependency with only one significant difference as shown in paired t-test in the subscale "lack of perceived alternatives", (b) that the subscale "need for contact" is a possible negative predictor for the outcome of depressive symptomatology and (c) no significant differences in Care Dependency between MCT and CBASP as shown in univariate ANOVA. Conclusion: These results suggest that Care Dependency is a rather stable construct which indeed might have a negative impact on the course of depression. We have found no indication that patients treated with CBASP develop greater Care Dependency than patients treated with MCT. Limitations include the sample size, the short course of treatment and the lack of randomization.

## **Using Behavioural Experiments in the Treatment of Mental Disorders – Recent Developments and Future Directions**

**Convenor:** Tobias Kube, Harvard Medical School, USA

**Chair:** Winfried Rief, Philipps-Universität Marburg, Germany

**Discussant:** Wilfried Rief, Philipps-University of Marburg, Germany

### **Behavioural Experiments in CT-PTSD - Why, When and How?**

**Hannah Murray, University of Oxford, United Kingdom**

Behavioural experiments are a core component of Cognitive Therapy for PTSD (CT-PTSD). When well-designed and implemented, they are a powerful way of helping clients evaluate and modify beliefs about the trauma and its consequences. In this talk, Hannah Murray will outline why, when and how to implement behavioural experiments during PTSD treatment. As well as ‘off the shelf’ behavioural experiments commonly used in PTSD treatment, she will use case material to demonstrate how to develop creative, personalised and conceptually rigorous behavioural experiments to enhance learning in PTSD treatment, targeting each area of the cognitive model.

### **Behavioral Experiments in Chronic Pain**

**Julia Glombiewski, Universität Koblenz-Landau, Germany**

Behavioral Experiments testing patients’ harm beliefs and aiming at expectation violation within so called “Exposure based pain treatment” are an economic and successful approach to chronic pain. In this presentation, Julia Glombiewski will explain the intervention with help of videos and case examples. Additionally, several studies on the effectiveness but also the limitations of the use of Behavioral Experiments in pain will be presented. In study 1, participants with back pain  $\geq 3$  months and an elevated level of pain related fear were included and randomly assigned to one out of three conditions Exposure (EXP) long (15 sessions), Exposure short (10 sessions) and CBT not including behavioral tests or exposures (15 sessions). Primary outcomes were pain-related disability and pain intensity. Overall the effect sizes (Cohen’s  $d$ ) were moderate to large. (e.g. Pain Disability Index: EXP short pre-post: 1.77 (1.17-2.36); EXP short pre-follow up: 1.59 (1.01-2.17); EXP long pre-post: 1 (.42-1.58); EXP long pre-follow-up: 1.18 (.59-1.77) CBT pre-post: 1 (.48-1.52); CBT pre-follow-up: 1.22 (.68-1.75)). EXP (long and short) was more effective than CBT in reducing disability measured by the Quebec Back Pain Disability Scale (Time x Group:  $F(2;172) = 3.25$   $p = .042$ ) and psychological inflexibility measured by Psychological Inflexibility in Pain Scale (Time x Group:  $F(2;172) = 5.85$ ;  $p = .003$ ) at post-treatment and at six-month follow-up. A follow-up behavioral test (lifting a water crate) revealed that in the EXP conditions harm ratings of movements were significantly more reduced than in the CBT condition. Further, these specific exposure effects could be transferred to a different context outside therapy (Study 2). Weekly changes in fear-avoidance beliefs, relaxation, distraction, and pain-related self-efficacy predicted disability reduction in both treatments (Study 3). A single-case experimental design study including 12 participants revealed that changes following Behavioral Experiments were immediate and led to larger effects (Study 4). Behavioral Experiments are a powerful tool to reduce disability in chronic pain.

### **Behavioural Experiments in Depression – How to Prevent Patients from Disregarding Positive Information?**

**Tobias Kube, Harvard Medical School, USA**

For the treatment of major depression, behavioural experiments are used to test negative thoughts and expectations for their reality. Typical examples could be trying out an activity that the patient thinks is unpleasant, or examining how other people react when they are approached and asked for help. The aim of such behavioural experiments is mostly to provide the patient with positive experiences that disconfirms previous negative beliefs. A common challenge that therapists face is when patients play down positive experiences afterwards with “yes, but” thoughts. In fact, recent experimental studies have shown that people with major depression are prone to devaluing unexpected positive experiences, thus maintaining negative beliefs. This is referred to as “cognitive immunization” against disconfirmatory evidence, meaning that patients negatively reappraise positive experiences, for example by considering the disconfirming experience to be an exception rather than the rule (e.g., “Normally, I don’t meet such nice people”) or by questioning its credibility (e.g., “The person had to be nice to me in this situation. In fact, she doesn’t like me”). Since such a negative reappraisal can hinder the success of treatment, it seems important to find appropriate strategies to prevent patients from engaging in cognitive immunization strategies. With reference to a recent study comparing three different strategies to inhibit cognitive immunization, I am going to discuss possibilities for therapists to deal with this phenomenon.

### **Rapid Symptom Improvement in Therapy: Why Does It Happen and What Does It Mean?**

**Convenor:** Asha Ladwa, University of Exeter, United Kingdom

**Chair:** Kim Wright, University of Exeter, United Kingdom

**Discussant:** Steven Hollon, Vanderbilt University, USA

### **Cognitive Processes of Sudden Gains in Cognitive Therapy for PTSD in Routine Clinical Care**

**Milan Wiedemann, University of Oxford, United Kingdom**

**Richard Stott, King’s College London, United Kingdom**

**Alecia Nickless, Esther T Beierl, Jennifer Wild, David M Clark & Anke Ehlers, University of Oxford, United Kingdom**

While a positive association of sudden gains and treatment outcomes is well established, less is known about the processes involved in their occurrence and about why they are linked to better treatment outcomes. This study explores changes in cognitive factors (negative appraisals, trauma memory characteristics) and comorbid symptoms (anxiety, depression) before, during, and after sudden gains in posttraumatic stress disorder symptom severity.

Two samples ( $N_1 = 248$ ,  $N_2 = 234$ ) of patients who received trauma-focused cognitive therapy for PTSD in routine clinical care were analysed. Sudden gains were identified using a newly-developed R package. Changes in processes around sudden gains were investigated comparing patients with sudden gains with similar patients without sudden gains. Estimates from both samples were meta-analysed to obtain pooled effects.

Patients with sudden gains ( $n_1 = 76$ ,  $n_2 = 87$ ) reported better primary treatment outcomes in PTSD symptoms at the end of therapy and follow-up than those without sudden gains. During sudden gains, greater changes in both cognitive factors and comorbid symptoms occurred



than in matched patients. The pooled estimates showed that negative appraisals decreased in the session prior to sudden gains compared to matched controls.

Sudden gains may be associated with better treatment outcomes due to the combination of simultaneous improvements in cognitive processes and comorbid symptoms. It will be discussed what the results may reveal about change processes in therapy.

### **The Analysis of Discontinuities and Patterns of Symptom Change in Cognitive Behavioral Therapy for Chronic Depression**

**Leigh Andrews & Adele M. Hayes, University of Delaware, USA**

**Anna Abel, Devon Partnership UK National Health Service, United Kingdom**

**Willem Kuyken, University of Oxford, United Kingdom**

Sudden gains (SG; large symptom improvements in one between-session interval) and other defined symptom trajectories have been identified as predictors of treatment outcomes for depression in separate lines of research (Aderka et al., 2012; Vittengl et al., 2013; 2016). Patients with defined trajectories are those who show a consistent pattern of symptom change, which could be linear, loglinear, or involve sudden 'one-step' improvement. We explored whether these symptom trajectories, as well as a cubic pattern, occurred in a sample 156 adults with chronic and treatment-resistant depression, who participated in a randomized controlled trial of cognitive-behavioral therapy as an adjunct to pharmacotherapy (Wiles et al., 2013). We examined the associations between sudden gains and trajectory status and whether they were unique predictors of long-term treatment outcome, above and beyond baseline symptoms, early symptom slope, and symptom variability. Depression symptoms were assessed weekly by the Beck Depression Inventory-II (BDI-II), which was used to identify SGs and define trajectory status. Multilevel modeling revealed that SGs predicted outcome above and beyond early slopes of change and symptom variability. Furthermore, when trajectories were included, those with a defined (vs undefined) trajectory reported significantly lower depression severity at both six- and 12-month follow-up. SGs were significantly more likely to occur in patients with defined trajectories, relative to undefined, and were significantly more likely to occur in the one-step pathway than any other defined trajectory. These findings highlight the importance of examining individual time course data. Having a defined symptom trajectory might confer its own advantages, in addition to those from a SG, and both provide unique predictive validity in terms of long-term depression outcomes.

### **Sudden Gains and Depression Spikes in Cognitive Behavioural Therapy and Behavioural Activation**

**Heather O'Mahen, University of Oxford, United Kingdom**

**Kim Wright, University of Exeter, United Kingdom**

**Adele Hayes, University of Delaware, USA**

**Asha Ladwa, University of Exeter, United Kingdom**

**Claire Harries, Guy's and St. Thomas' Hospital London, United Kingdom**

Previous research has demonstrated that rapid symptom changes within psychotherapy are associated with depression treatment outcome. Two rapid symptom discontinuities have been found to have positive benefits on outcome; sudden gains, which are rapid symptom improvements between two sessions of therapy, and depression spikes, which are a temporary worsening in symptoms. However, depression spikes have only been investigated in exposure based treatments and little research has compared whether sudden gain and depression spikes differ between treatments. This study examined the relative prevalence of sudden gains and depression spikes in cognitive behavioural therapy (CBT) and behavioural activation (BA) for depression, and examined whether these symptom patterns are associated with depression outcome.

A secondary analysis of 300 adults with major depressive disorder (MDD) who received CBT or BA in the COBRA trial (Richards et al., 2016) was conducted. Sudden gains and depression spikes were identified using session-by-session Beck Depression Inventory (BDI) scores. The Patient Health Questionnaire (PHQ-9) and the Structured Clinical Interview Schedule (SCID) were used as measures of MDD at 6, 12, and 18 months follow up.

We will present the how each rapid symptom pattern is associated with 6, 12, and 18 month outcome on the SCID and PHQ-9, between CBT and BA. Additionally, we will present how the combination of experiencing a sudden gain and depression spike influenced outcome, and the treatment differences between CBT and BA. The theoretical and clinical implications will be discussed.

### **Why Do Rapid Improvements Happen? Client and Therapist Processes in Cognitive Behavioural Therapy and Behavioural Activation**

**Asha Ladwa, University of Oxford, United Kingdom**

**Heather O'Mahen & Kim Wright, University of Exeter, United Kingdom**

**Adele Hayes, University of Delaware, USA**

Rapid, stable symptom improvements in therapy, known as sudden gains (Tang and DeRubeis, 1999), are a robust pattern of change found in psychological therapies for depression, including cognitive behavioural therapy (CBT) and behavioural activation (BA). Research has found that individuals who experience sudden gains earlier in treatment enjoy better outcomes at post-treatment and some have found there are longer lasting clinical benefits. However, the client and therapist processes surrounding a sudden gain are poorly understood. Therefore, the current study examined both client and therapist processes to understand what precedes and accompanies the sudden gain, and whether these processes are associated with outcome in CBT and BA.

Data from the COBRA trial, which assessed cost and clinical effectiveness of CBT and BA for adult depression, were used for this secondary analysis. Depression symptoms were assessed using the Beck Depression Inventory at each session, which was used to identify sudden gains. 50 individuals from each therapy who experienced sudden gains were matched to 50 individuals in a yoked control group. They were matched by treatment, Patient Health Questionnaire baseline score and session number. Three sessions over the sudden gain, which totalled to 274 therapy audio recordings, were coded using the Change and Growth Experiences (CHANGE) manual, a coding system designed to examine processes of change within psychotherapy.

Key processes for CBT and BA were explored in terms of relation to sudden gains, differences between treatment and relation to outcome. Findings of the analyses will be presented along with discussions of their theoretical and clinical implications.

## **Metacognitive Interventions for Psychological Disorders**

**Convenor: Steffen Moritz, University Medical Center Hamburg, Germany**

**Chair: Cornelia Exner, University of Leipzig, Germany**

### **Metacognitive Training in Psychosis (MCT): New Meta-Analyses and Developments**

**Steffen Moritz, Francesca Bohn & Brooke Schneider, University Medical Center Hamburg, Germany**

Metacognitive Training in psychosis (MCT) targets positive symptoms of psychosis. The program is available in several languages in both a group (35 languages; [www.uke.de/mct](http://www.uke.de/mct)) and individualized format (MCT+; 13 languages; [www.uke.de/mct\\_plus](http://www.uke.de/mct_plus)). The intervention aims to raise patients' awareness for cognitive "traps" or biases (e.g., jumping to conclusions bias, overconfidence in errors, bias against disconfirmatory evidence) that are implicated in the formation and maintenance of psychotic symptoms. An overarching aim of MCT is to "plant the seeds of doubt" using engaging and playful exercises. Based on a "backdoor-approach", individualized MCT+ combines core metacognitive and cognitive behavioral techniques allowing for a more gentle treatment within a one-on-one-setting. The most recent meta-analyses demonstrate that MCT reduces positive symptoms at a small to medium effect size relative to control conditions and is well-accepted by patients (Eichner & Bohn, 2016; Liu et al., 2018; Philipp et al., in press). The reduction of positive symptoms seems to be achieved primarily by an amelioration of overconfidence (Köther et al., 2017). Effects on symptoms are strongest for patients high on social anxiety (Moritz et al., 2018). Recently, new modules on stigma and self-esteem have been developed, as patients view these domains as having a high treatment priority (Moritz et al., 2017). Moreover, we developed a (transdiagnostic) smartphone app to ensure the long-term maintenance of skills and strategies learned in MCT ([www.uke.de/mct\\_app](http://www.uke.de/mct_app)), which has been successfully tested in a randomized controlled trial (Lüdtke et al., 2018).

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### **Metacognitive Therapy Versus Exposure and Response Prevention for Obsessive-Compulsive Disorder: Defining the Active Ingredients of Treatment Success**

**Cornelia Exner & Jana Hansmeier, University of Leipzig, Germany**

**Haberkamp Anke & Winfried Rief, University of Marburg, Germany**

**Julia Glombiewski, University of Landau, Germany**

Metacognitive therapy (MCT) is a new approach to psychotherapy of obsessive-compulsive disorder (OCD) that relies on seemingly different therapeutic mechanisms than the well-established exposure and response prevention (ERP) treatment. This randomized pilot trial investigated the feasibility of using MCT in the treatment of OCD as compared to ERP. Thirty-six outpatients with OCD according to DSM-IV criteria were randomly allocated to individual weekly therapy with either manualized MCT or ERP and completed on average 13 sessions. Primary outcome was the reduction of OCD symptom severity after treatment as indicated by the clinician rated Yale-Brown Obsessive Compulsive Scale. Reduction of dysfunctional metacognitive beliefs, reduction of behavioral avoidance and therapeutic alliance were investigated as potential mediators (mechanisms) of treatment success. Results at post treatment assessment showed a significant reduction of OCD symptoms in both treatment conditions and no differences between MCT and ERP. Although only targeted by MCT metacognitive beliefs were reduced to a comparable degree in both conditions and were not related to treatment success. Treatment success was significantly related to quality of therapeutic alliance as rated by the client in the first sessions of treatment. The trial provided preliminary evidence that MCT might present a treatment alternative for OCD. However, reduction in metacognitive beliefs might be less specific to MCT and less important for treatment success than proposed.

## **Metacognition Reflection and Insight Therapy and Recovery from Psychosis**

**Paul Lysaker, Indiana University, USA**

Metacognition refers to a spectrum activities which allows for persons to available to themselves a sense of self and other within the flow of life. It is a core process therefore which supports ongoing self-reflection, adaptation and cooperation with others across the lifespan. Deficits in metacognitive capacities have been proposed to be a common factor in schizophrenia spectrum disorders, and been suggested to underpin a range of puzzling phenomenon found in this condition including alterations in sense of self and the collapse of previous sets of goal directed activities. Difficulties with metacognitive function have been a source of increasing interest recently given their potential connection to recovery. In particular it has been proposed that metacognitive deficits in schizophrenia have an even broader deleterious effects on wellness, as they impede persons' ability to make sense of their own personal psychosocial challenges and then to decide how to manage those challenges and direct their own recovery. This latter possibility has led to increasing interest in the development of recovery-oriented treatments that assist persons to recapture their metacognitive abilities and therefore, more effectively manage their lives and achieve higher quality of life over time. This presentation will detail the development of one such treatment, Metacognitive Reflection and Insight Therapy (MERIT) (Lysaker & Klion, 2017). MERIT is a form of integrative individual psychotherapy aimed at assisting persons with complex mental health needs make more coherent sense of the challenges they face and what they might do to effectively respond. I will first discuss the concept of metacognition and its relationship to self-experience and agency. I will then discuss methods for assessing metacognition, the development of MERIT, and describe several ways in which MERIT converges with and diverges from other well established treatments. The core elements which define MERIT and their measurement will be presented. Next, I will discuss empirical support for how MERIT may promote recovery. Lastly, future directions for research and treatment development will be discussed.

## **Metacognitive Therapy for Depression**

**Roger Hagen, Norwegian University of Science and Technology Trondheim, Norway**

In the metacognitive model, depression is conceptualized as being maintained mainly by rumination, which again is maintained by dysfunctional metacognitions and not by changes in mood or events. The metacognitive model suggests that depressed individuals use rumination to deal with stress and trigger thoughts. Positive beliefs about rumination motivate individuals to engage in rumination as they may believe that analyzing why they are depressed will help them to snap out of their depression. However, rumination leads to distress which again activate negative beliefs about this mental process such as having no control of ones thinking and fearing the mental, physical, and interpersonal consequences of rumination. The activation of these metacognitive beliefs and rumination is thought to contribute to the development and maintenance of depression. Depression is therefore understood as a problem of overthinking. Metacognitive therapy aims to modify erroneous metacognitive beliefs to enable the development of greater flexible reactions to negative internal events. It does so by using behavioral experiments and verbal reattribution targeted at metacognitive change and specific techniques such as the attention training technique, detached mindfulness and postponement of rumination. According to metacognitive therapy this will enhance flexible executive control, and through the process of therapy the patient learns new and more beneficial ways of relating to thoughts that act as triggers for rumination. Several studies suggest that MCT is a potentially effective treatment for depression and results from a RCT are presented in the symposium.

## **Metacognition Reflection and Insight Therapy: Intersubjective View and Psychotherapy Integration Considerations**

**Ilanit Hasson-Ohayon, Adi Lavi-Rotenberg, Libby Igra & Nitzan Arnon-Ribinfeld, Bar-Ilan University, Israel**

Based on extensive literature suggesting that deficits in metacognition negatively affect functioning among persons with schizophrenia, metacognitive based approaches for psychotherapy were developed. One of these approaches is metacognitive reflection and insight therapy (Lysaker and Klion, 2017). A randomized control trial of metacognition reflection and insight therapy with people with schizophrenia will be presented including preliminary results of process and outcome. The trial, yet to be completed, assesses subjective outcomes related to the experience of the self (e.g. self-esteem. Self-stigma, self-compassion), as well as objective outcomes including symptoms and distress. In addition, processes of synchronicity between client and therapist are also examined and trajectories of changes are traced. The presentation of the trial and its preliminary findings will emphasis the connection between the concept of intersubjectivity and the concept of metacognition as a fundamental core process in the construction of representations of self and other. An additional emphasis will be given to the need to integrate techniques from other approaches of psychotherapy such as CBT in order to respond to diverse clients' evolving and changing needs.

## **Strengthening Cognitive Behaviour Therapy: Diverse Strategies from Around the World**

**Convenor: Jacqueline Persons, Oakland CBT Center and University of California, Berkeley, USA**

**Chair: Jacqueline Persons, Oakland CBT Center and University of California, Berkeley, USA**

**Discussant: Wolfgang Lutz, University of Trier, Germany**

## **Prediction of Dropout in Outpatient CBT with Machine Learning Algorithms**

**Bjorn Bennemann, University of Trier, Germany**

**Aim:** Premature treatment termination (dropout) is a known problem in the psychotherapeutic process and has important implications for the patient and the healthcare system. Therefore, it is important to identify the factors associated with dropout as well as the patients who are at risk of a premature termination.

**Method:** Data of 2301 patients who were treated by 181 therapists at the outpatient center of the University of Trier were analyzed.

Additionally, 185 patients, who dropped out early in the probatory phase and therefore had no regular therapist yet, were part of the analyses. To predict premature treatment termination, data were divided up into a training and a test sample. Random allocation of cases to training and test data was carried out multiple times to ensure that our results did not rely on specific subsample characteristics. With the help of different machine learn algorithms and using the R package caret, a model was created on the training data, which delivered probabilities that a certain patient drops out. Models were evaluated in terms of specificity and sensitivity, brier score and accuracy in the test sample. Afterwards the models were compared with each other. The model, which performed best on average and whose performance was least likely to deviate from this average largely, was selected.

**Results and Discussion:** First, we will report our approach to find the best model. Second, we will present the results of how accurate our final model predicts dropout. The discussion will focus on clinical implications of our findings as well as the advantages and limitations of machine learning algorithms used in this study.

### **An Investigation of CBT Treatment Processes in a Smartphone App (MoodMission) for Anxiety and Depression Symptoms**

**Nikolaos Kazantzis & David Bakker, Monash University, Australia**

**Joshua Curtiss, Boston University, USA**

**Nikki Rickard, Monash University, Australia**

**Stefan Hofmann, Boston University, USA**

**Aim:** While many computerized CBT programs have been established around the world, very few CBT-based smartphone apps have been developed and studied. MoodMission is one such Mental Health smartphone app that provides individuals with “Missions,” which are empirically-supported CBT interventions that target treatment processes, in an attempt to alleviate low mood and anxiety. A randomized controlled trial has supported the effectiveness of the app, and since being released MoodMission has collected large amounts of naturalistic data on the utility of different CBT strategies. Analysis of this data may reveal the contextual utility of specific CBT strategies and change processes.

**Method:** After downloading the MoodMission app from the iOS or Android app stores, individuals completed in-app baseline assessments and final assessments 30 days later. Individuals reported their mood to MoodMission when they were feeling low or anxious and received a list of short CBT strategies to choose from and engage in. Distress before and after Mission completion was recorded on a 0-10 scale, as well as a 0-10 rating of Mission Helpfulness. Data from over 30,000 individuals will be subject to complex network analyses to reveal which change processes were most effective for reducing distress for different reported problems (e.g., behavioral activation or cognitive re-appraisal in reduction of negative rumination). Network analyses may also reveal utility based on demographics (e.g. mindfulness in reduction of anxious arousal for older or younger individuals).

**Results and Discussion:** We will report the nature and structure of the network analyzed, and the major findings regarding distress reduction and helpfulness of Missions under different circumstances. Results will be discussed in relation to how self-help apps like MoodMission can be improved, and whether findings may be used to inform CBT delivered via computer or face to face.

### **Gaze-Contingent Music Reward Therapy for Clinically Anxious 7-10 Year-Olds: An Open Multiple Baseline Feasibility Study**

**Garret Zieve, University of California, USA**

**Marian Linetzky, Michal Kahn & Amit Lazarov, Tel Aviv University, Israel**

**Daniel S Pine, National Institute of Mental Health, USA**

**Objective:** This multiple baseline open pilot trial examined feasibility, compliance, acceptability, and preliminary indices of efficacy of Gaze-Contingent Music Reward Therapy (GC-MRT) for anxious 7-to-10 year-old children. GC-MRT is a novel therapy for anxiety disorders that relies on eye-tracking technology and operant conditioning principles to divert attention toward neutral over threat stimuli, with music serving as reward. **Methods:** Using a multiple-baseline design, 12 children (Mage=8.3 years, SD=.72, Range=7-10; 4 girls) with social anxiety disorder, generalized anxiety disorder, or separation anxiety disorder received eight therapy sessions. Clinical status was determined via semi-structured interviews and questionnaires. Patients were randomized to wait 1, 3, or 5 weeks between initial assessment and beginning of therapy. Self-reported anxiety was recorded weekly, and comprehensive clinical assessments were obtained pre- and post-treatment. **Results:** All 12 patients completed the full course of GC-MRT within the allocated therapy period. Therapy credibility rates were moderate to high as reported by both children and parents. Clinician-rated anxiety levels remained consistent during baseline measurement and decreased significantly following treatment. Parent-reports also yielded significant reductions in child anxiety symptoms from pre- to post-treatment. However, child-reported anxiety did not change significantly. **Conclusions:** The results provide preliminary evidence for feasibility, acceptability, and efficacy of GC-MRT for young children with anxiety disorders. Efficacy should now be tested in randomized controlled trials.

### **To Increase Homework Compliance, Make Assignments That Are Congruent with the Patient's Feedback About What Was Helpful in the Session**

**Jacqueline Persons, Alexandra Jensen, Connie Fee & Anthony Miles, Oakland CBT Center and University of California, Berkeley, USA**

**Victoria Beckner, San Francisco Group for Evidence-Based Psychotherapy and University of CA, USA**

**Daniela Owen, San Francisco Bay Area Center for Cognitive Therapy and University of CA, USA**

Homework is an important transdiagnostic treatment element that is associated with improved treatment outcome in psychotherapy. The present study tested the hypothesis that psychotherapy outpatients were more likely to complete homework assignments that were congruent with content the patient reported wanting to remember from the session (patient takeaways). The study relied on session-by-session data from 43 patients who received naturalistic cognitive behavior therapy in a private practice setting and completed a feedback form each session that recorded the content of the homework assignments for the session, patient takeaways from the session, and homework completion. Congruence was determined by raters who evaluated the match between homework content and patient-reported takeaways. Results of generalized linear models showed that congruence between homework assignment content and takeaways was statistically significantly associated with homework compliance. This finding suggests that therapists may be able to improve homework compliance by soliciting feedback regarding what the client found important about the session and then collaboratively assigning homework that is congruent with the patient's takeaways.

## **Perfectionism: Where Do the Paths at the Crossroads Lead?**

**Convenor: Roz Shafran, UCL Great Ormond Street Institute of Child Health, United Kingdom**

**Chair: Sarah Egan, Curtin University, Australia**

**Discussant: Roz Shafran, University College London, United Kingdom**

### **Internet-Based Cognitive Behaviour Therapy for Perfectionism: More is Better but no Need to Be Prescriptive**

**Tracey Wade, Enola Kay & Madelaine de Valle, Flinders University, Australia**

**Sarah Egan, Curtin University, Australia**

**Gerhard Andersson, Linköping University, Sweden**

**Per Carlbring, Stockholm University, Sweden**

**Roz Shafran, University College London, United Kingdom**

Two sequential randomized internet ICBT for perfectionism (ICBT-P) studies were conducted with participants who self-identified as having difficulties with perfectionism; in the first participants (N=51) received 3-module ICBT-P or wait-list, and in the second participants (N=55) received fixed (asked to complete all 8 modules two per week over 4-weeks) or flexible format (after completing the first psychoeducational module, participants decided how many/in what order they completed the modules). We examined impact on our primary variables, perfectionistic concerns and standards, and secondary outcomes of negative affect, body image flexibility, and self-efficacy. First, while use of a 3 to 8 module intervention reliably decreased perfectionism, it appears that more modules are required in order to impact secondary outcomes, such as negative affect and body image. Second, there is no difference in impact when a fixed or flexible approach to the intervention (i.e., order and number of modules to be completed) is adopted. This suggests we can offer a patient-centred approach to ICBT-P that is effective, while suggesting completion of more modules can result in larger, more pervasive improvements.

### **Reconsidering Perfect: A Qualitative Study of The Experiences of Undergoing Internet-Based Cognitive Behaviour Therapy for Perfectionism**

**Alexander Rozental, Karolinska Institute, Sweden**

**Radha Kothari, UCL Great Ormond Street Institute of Child Health, United Kingdom**

**Tracey Wade, Flinders University, Australia**

**Sarah Egan, Curtin University, Australia**

**Gerhard Andersson, Linköping University, Sweden**

**Per Carlbring, Stockholm University, Sweden**

**Roz Shafran, UCL Great Ormond Street Institute of Child Health, United Kingdom**

Internet-based cognitive behaviour therapy (ICBT) is a promising format for treating different psychiatric disorders. In addition, several clinical trials have found positive results for implementing transdiagnostic treatments via the Internet, as well as for using ICBT to target transdiagnostic processes, such as perfectionism. However, few qualitative studies have been conducted on the experiences of patients undergoing such treatments, making it unclear what aspects might facilitate or hinder their delivery. In the current study, patients completing twelve-week therapist-guided ICBT for perfectionism responded to open-ended questions at post-treatment. In total, 30 out of 62 (48.4%) rated the ease of understanding and completing the treatment program, as well as described their impressions of its content and the support provided by their therapist. The results were analysed qualitatively using thematic analysis. Overall, patients were satisfied, finding treatment easy to comprehend and use. Five themes were found in the responses; Learning how to do things differently, Noticing the positives, Feeling safe to be honest, A comfortable treatment format and Barriers to treatment. The results suggest that many patients were able to achieve a change in perspective in relation to their perfectionism and started facing their fears. They were also able to report the benefits of doing things differently as part of treatment, such as an improvement in their interpersonal relationships. Most patients were also positive about the treatment format, enjoying its flexibility and the encouragement offered by their therapist. However, obstacles such as conflicting commitments, personal difficulties, time-consuming and comprehensive modules, and a desire for more support were brought up by some, suggesting that there are aspects that could be considered in the future.

### **Imagery Trumps Repetitive Negative Thinking as an Indirect Pathway Between Perfectionism and Psychological Distress**

**Joel Howell, Peter McEvoy, Rebecca Anderson, Robert Kane & Sarah Egan, Curtin University, Australia**

Perfectionism, repetitive negative thinking and imagery have been proposed as transdiagnostic processes, and are associated with stress, anxiety and depression. However, repetitive negative thinking and imagery have not been examined together when considering the well-established association between perfectionism and psychological distress. The present study aimed to test the direct and indirect relationship between different components of perfectionism (perfectionistic concerns, perfectionistic striving, and clinical perfectionism) and psychological distress (symptoms of depression, anxiety, and stress) through repetitive negative thinking and imagery. Model 1 revealed significant direct and indirect effects between perfectionistic concerns and psychological distress via repetitive negative thinking. Model 2 revealed a significant indirect effect via distressing imagery but not repetitive negative thinking. Current findings suggest distressing imagery, rather than repetitive negative thinking, is pertinent to explaining the relationship between perfectionism and psychological distress.

## **Implementing and Evaluating Strength-Based Processes and Change Mechanisms in Research and Practice of Positive Cognitive Behavioral Therapy**

**Convenor: Nils F. Töpfer, Friedrich-Schiller-University Jena, Germany**

**Chair: Nils F. Töpfer, Friedrich-Schiller-University Jena, Germany**

### **Positive CBT: Fourth Generation CBT**

**Fredrike Bannink, clinical psychologist and lawyer in private practice, the Netherlands**

Fredrike Bannink will discuss her model of Positive CBT and the recent research findings showing better outcomes for Positive CBT than traditional CBT in the treatment of major depressive disorder.

Background and objectives:

Positive CBT (Bannink, 2012) offers the best constructive vision to date of what CBT looks like when joined with positive psychology and solution-focused brief therapy approaches. It captures the essential importance of building on positive feelings, motives, imagery, memories and behavior. It changes what we focus on and how we work in helping people change.

Objectives of the research were to compare differential improvement of depressive symptoms (primary outcome), positive affect, and positive mental health indices during positive CBT versus traditional, problem-focused CBT for major depressive disorder.

Method:

Forty-nine patients with major depressive disorder (recruited in an outpatient mental health care facility specialized in mood disorders) received two treatment blocks of eight sessions each (cross-over design, order randomized). In addition to collecting quantitative data, we collected qualitative data by conducting in-depth interviews with the first twelve individuals, and observing treatment trajectories and supervision sessions.

To analyze quantitative data we used mixed regression modelling. We also calculated clinically significant change per treatment and phase. To analyze qualitative data, we adopted a constructivist grounded theory approach, blending inductive (bottom-up) data collection with theory-driven (top-down) interpretation.

Results:

Intention-To-Treat mixed regression modelling indicated that depressive symptoms improved similarly during the first, but significantly more in positive CBT compared to traditional CBT during the second treatment block. Positive CBT was associated with significantly higher rates of clinically significant or reliable change for depression, negative affect, and happiness. Effect sizes for the combined treatment were large (pre-post Cohen's  $d=2.71$  for participants ending with positive CBT, and 1.85 for participants ending with traditional CBT). Positive affect, optimism, subjective happiness and mental health reached normative population averages after treatment.

Analysis of the qualitative data indicated that most clients were sceptic about positive CBT at the start of the treatment, but afterwards preferred positive CBT and indicated experiencing a steeper learning curve during positive, compared to traditional CBT. The preference for positive CBT was attributable to four distinct influences: feeling better and empowered, benefitting from the upward spiral effect of positive emotions, learning to appreciate small 'baby-steps', and (re)discovering optimism as a personal strength.

Conclusion:

Overall, findings suggest that positive CBT: 1) efficiently counters major depressive symptoms, 2) leads to more clinically significant change than traditional CBT, and 3) is favored over traditional CBT by clients with moderate to severe and largely treatment-resistant depression.

Future research is needed to investigate follow-up and relapse-prevention effects.

Bannink, F. P. (2012). *Practicing Positive CBT. From Reducing Distress to Building Success*. Chichester, Wiley.

### **The Relation Between Transdiagnostic Worry and Working Memory Performance in a Randomized Controlled Implementation Trial (IMPLEMENT 2.0): Integrating Psychotherapy Research and Transdiagnostic Research**

**Judith Held, Andreea Vișlă, Christine Wolfer & Christoph Flückiger, University of Zürich, Switzerland**

Background: Worry is commonly experienced by the vast majority of people on a regular basis about daily experiences. However, worry can also become extreme and is a prominent feature of anxiety and other mental disorders. Especially individuals with Generalized Anxiety Disorder (GAD) suffer from extensive and uncontrollable worry and associated anxiety symptoms. In the present randomized-controlled trial (RCT) two implementation strategies of a cognitive-behavioral manual for the treatment of generalized anxiety disorder are compared. In one condition, the CBT manual is implemented in a state-of-the-art manner, whereas in the other condition, a strength-based strategy will be implemented. In addition to examining patient variables, the focus of the research design is on the variability of therapists and therapist effects within an ABAB design. Imbedded in the RCT are a number of sub-projects, one of which is the assessment of working memory capacity (WM) in GAD patients, patients from anxiety- and depression cluster, subclinical patients and control participants. In the focus is the investigation of the transdiagnostic relationship of worry on WM performance.

Method/Results: 80 patients with generalized anxiety disorder are randomly assigned to two conditions (40 patients per condition), which both follow a common cognitive behavioral therapy for generalized anxiety disorders (Flückiger, Craske & Barlow, 2015), but the conditions differ in the specific implementation of the manual. While condition A is to perform the beginning of the session "state-of-the-art", in the second condition B the beginning of the session is extended in order to be able to elaborate on possible subtle changes. Eighty patients (and 20 therapists) specializing in cognitive-behavioral therapy will be randomized to the two conditions following an ABAB design.

Furthermore, a subsample of the GAD patients as well as samples recruited during the intake phase of the trial performed the task in a worry-free state, followed by a second round starting with a task-focused worry induction (in total 138 participants). Results of a multivariate mixed effect model showed a significant time effect for the outcome measures accuracy and reaction time. However, no significant differences between the groups were found.

Discussion: First, results on recruitment and feasibility of the RCT are presented and discussed. Second, results of the WM-subproject will be discussed with a focus on the integration of the results in a strength-based context: Specifically, this is one of the first studies investigating the complex interplay between different dimensions of worries and its effect on WM performance which showed that there is no disorder-specific effect of different patient samples.

## **How Can Patients be Successfully Supported During the Waiting Time for Psychotherapy? Evaluation of the Effects of the Resource Diary**

**Anne Katrin Risch, Nils F. Töpfer, Gabriele Wilz & Bettina Kuntz, Friedrich-Schiller-University Jena, Germany**

**Background/Aim:** In view of very long waiting times for psychotherapy, it is an important question how patients can be successfully supported during waiting for psychotherapy. Low-threshold self-help interventions could be useful to foster their commitment to psychotherapy, their personal responsibility and self-efficacy. Resource activation is a general change mechanism of psychotherapy which can potentially be triggered already before treatment. Focusing the patient's attention on his own resources can initiate a positive upward spiral which might lead to positive changes in well-being and symptoms. We developed a resource diary (i.e. writing about positive memories and experiences) as a tool for bridging waiting time for psychotherapy, and evaluated whether it improves well-being and reduces symptoms before the beginning of outpatient psychotherapy.

**Methods:** 117 patients waiting for the beginning of outpatient psychotherapy were invited to take part in the study. After giving their written consent to participate (N = 62), they filled out the pre-assessment questionnaires measuring psychological well-being, psychosocial resource utilization, psychological symptoms, depression, emotion regulation and self-efficacy (N = 53). Afterwards, patients were randomly assigned to the intervention group (IG: n = 29) or the control group (CG: n = 24). IG participants kept the resource diary at home on three consecutive days per week for four weeks (= 12 diary entries). After the 4-week treatment phase, all participants were contacted again and asked to complete the post-assessment questionnaires.

**Results:** The completer sample consisted of 40 participants (IG: n = 18, CG: n = 22). Participants who dropped out did not significantly differ from the completer sample regarding age, sex, waiting time or outcome variables at pretest. Generalized analyses of covariance showed that participants who kept the resource diary reported significantly higher self-efficacy and used the functional emotion-regulation strategy reappraisal significantly more often at posttest than CG participants.

**Discussion:** Results indicate that the resource-diary can successfully support patients during the waiting time for psychotherapy. Through increasing self-efficacy, the resource diary achieves a highly relevant goal as it presumably activates patients' approach system, own problem-solving attempts and positive expectations for change already before therapy. The effect on reappraisal indicates that the resource diary helps patients to reinterpret and approach potentially emotion-eliciting situations more positively which might increase their receptiveness for problem-focused interventions. Thus, patients keeping the resource diary might get off to a better start and have faster early improvements in therapy. However, the high drop-out rates need to be considered and discussed.

## **A Week in the Life of Generalized Anxiety Disorder Patients: An Ecological Momentary Assessment of Worry and Strength Episodes**

**Andreea Vlăsă, Judith Held, Christine Wolfer & Christoph Flückiger, University of Zürich, Switzerland**

**Aim:** Worry has been investigated as a central feature of generalized anxiety disorder (GAD) and, moreover, it has been suggested as an important core transdiagnostic process that cuts across current diagnostic boundaries. Nevertheless, it has been argued that by focusing on assessing deficits only, one might neglect individual personal resources and capabilities, which might have an essential role in attenuating the influence of deficits on mental health. Moreover, it has been suggested that frequent reliance on global, retrospective reports seriously limits our ability to accurately understand phenomena in real world settings and misses the dynamics of life as it is lived. Therefore, the first aim of the present study was to examine how GAD patients' worry and strengths episodes manifest during a week and how the occurrence of strengths episodes influences the occurrence of worry episodes. Second, the study aims to further investigate the fluctuations in anxiety level within- and between-days and patients as a function of episode type. **Methods/Results:** Using an ecological momentary assessment, fifty GAD patients taking part in a randomized clinical trial filled in their worry and strengths episodes for one week before psychotherapy start. Both event- and time-based assessments were reported using a smartphone application (movisensXS). Preliminary data using multilevel analyses will be presented. **Discussion:** Theoretical, methodological, and clinical significance of the findings will be discussed.

## **Resource Activation as a General Change Mechanism in CBT for Family Caregivers of People with Dementia: Findings from Process-Outcome Analyses**

**Nils F. Töpfer, Friedrich-Schiller-University Jena, Germany**

**Robin Wester, Bergische Universität Wuppertal, Germany**

**Gabriele Wilz, Fabian Münch & Rolf Steyer, Friedrich-Schiller-University Jena, Germany**

Family caregivers of people with dementia are confronted with burdensome challenges which often have a negative impact on their mental health. Interventions for supporting dementia caregivers are, thus, much needed. In research on change mechanisms of interventions the predominant focus on compensation strategies (i.e. reduction of deficits and negative aspects) should be complemented by investigating capitalization strategies (i.e. fostering strengths and enhancing positive aspects). Tele.TAnDem, a telephone-based cognitive behavioral intervention for dementia caregivers, incorporates resource activation as superordinate intervention heuristic and capitalization strategy. In the presentation, findings from a randomized controlled trial will be presented in which Tele.TAnDem was delivered in established care provision structures (n = 139) and evaluated relative to usual care (n = 134). Compared to the control group, Tele.TAnDem led to significant increases in dementia caregivers' psychosocial resource utilization which, in turn, mediated the effects of the intervention on quality of life. In an attempt to extend these findings and gain more insights into the growth process of resource activation (measured from the patient's and the therapist's perspective using post-session report forms) over the 12 sessions of the intervention, we applied piecewise latent trajectory models (LTM). For each of the three phases of the therapy, we modeled a separate linear slope factor describing the change in resource activation in this phase (three-piece LTM). We analyzed the interplay between resource activation and problem activation as well as the relationship of the growth parameters of resource activation with post-therapy outcome variables. While the increases in resource activation were largest in the first and the last phase of therapy, problem activation increased most in the mid-phase of therapy. Resource activation at the beginning of therapy proved to be predictive of dementia caregivers' post-therapy utilization of psychosocial resources. The clinical implications of the findings will be discussed against the background of the three-phase model of psychotherapy and the positive feedback mechanisms involved in therapeutic change as proposed on the basis of consistency theory.

## **Developing Cognitive Behavioral Therapy in China: Computerized Cognitive Behavioral Therapy (cCBT), Virtual Reality-Enhanced Cognitive Behavioral Therapy (VR-CBT) and Neuroscience-Informed Cognitive Behavioral Therapy (NeuroCBT)**

**Convenor:** Chun Wang, Nanjing Brain Hospital and Cognitive behavior therapy institute of Nanjing Medical University, China

**Chair:** Ning Zhang, Nanjing Brain Hospital and Cognitive behavior therapy institute of Nanjing Medical University, China

**Discussant:** Zhen Wang, Shanghai Mental Health Center and Shanghai Jiao Tong University, China

### **Efficacy and Cost-Effectiveness of Computerized Cognitive Behavioral Therapy for Obsessive-Compulsive Disorder**

**Qing Fan, Yuxin Zhou & Zhen Wang, Shanghai Mental Health Center and Shanghai Jiao Tong University, China**

**Chun Wang, Nanjing Brain Hospital, China**

Computerized cognitive behavioral therapy (CCBT) is a treatment that combines CBT with computer technology. It can solve the limitations of CBT in space, reduce the stigma of patients, and improve the patient's compliance. Treatment of obsessive-compulsive disorder (OCD) by CCBT is a newly developed treatment. The CCBT intervention platform used in the study is a website for treating diverse mental illnesses, including depression, anxiety, OCD and insomnia. The website is jointly developed by the Chinese CBT professional organizations (Professional CBT Committee of China Mental Health Association, CBT Group of Chinese Psychological Association, CBT Collaboration Group of Chinese Medical Association, CBT Working Group of Chinese Medical Association). It is located at the secondary site under the China CBT website ([www.CBTChina.com.cn](http://www.CBTChina.com.cn)). The multiple modules in the treatment of OCD include psychological education, exposure and response prevention, and prevention of recurrence. The OCD patients are trained through these modules on the website. This study explored the efficacy and cost-effectiveness of CCBT intervention in Chinese OCD patients by comparing CCBT with cognitive behavioral group therapy (CBGT).

### **Efficacy and Safety of Virtual Reality Exposure Therapy for Acrophobia**

**Qiuyu Wang, Nanjing Normal University, China**

**Chun Wang, Ning Zhang, Huachen Ding & Changjun Teng, Nanjing Brain Hospital affiliated to Nanjing Medical University, China**

Many researches have demonstrated that virtual reality (VR) is an effective technique for the treatment of mental disorders. VR exposure therapy has been used to treat a variety of fears and phobias. However, we have not found similar research in China. During this project, EEG units as neurofeedback (NFB) will be integrated with a VR platform, STEPVR, to design a prototype system responsive to EEG signals. The STEPVR has many more interface potentialities than a screen-based system, and it will better reflect the effect of VR exposure therapy on the brain. This article will study on the use of virtual reality exposure therapy treating Chinese that suffering from acrophobia. A case-control study design was used. Outpatients with acrophobia were divided into VR exposure therapy group or imaginal exposure therapy group with double blind control. All patients were measured by the corresponding symptom scale to assess the degree of anxiety and fear before and after each treatment. Comparing the scale score to assess the effectiveness and safety of exposure therapy based on VR and NFB technology in acrophobia.

### **Neural Circuit Mechanism of CBT and Neuroscience Informed CBT**

**Chun Wang, Ning Zhang, Huachen Ding & Changjun Teng, Nanjing Brain Hospital and Nanjing Medical University, China**

**Qiuyu Wang, Nanjing Normal University, China**

Breakthroughs in neuroscience have yielded invaluable insights into the neural bases of mood, emotion and cognitive functions. Studies of integration neuroimaging and CBT have increased our knowledge about the neurobiological correlates of mental disorders and changes resulted from CBT. In this report, we will introduce some valuable research, ideas and our research outcomes in this area. And we will discuss about how can we use these founding to design future CBT strategies: neuroscience informed CBT.

### **Racial Issues in the Assessment of Mental Health and Delivery of Cognitive Behavioral Therapies**

**Convenor:** Monnica Williams, University of Connecticut, USA

**Discussant:** Nicole Buchanan, Michigan State University, USA

### **Implicit Racial Bias Across Ethnic Groups and Cross-Nationally: Mental Health Implications**

**Sonya Faber, Syneos Health, Germany**

**Monnica Williams, University of Connecticut, USA**

**Paul Terwilliger, Booz Allen Hamilton, USA**

In many countries, people of African descent experience disparities in access to quality mental health care and mental health overall. Black-White racism has been implicated as a source of disparities in the US, but the role of bias from other non-White ethnic groups and in other countries is unclear. Implicit attitudes are thoughts and feelings that often exist outside of conscious awareness, and thus are difficult to consciously acknowledge and control. These attitudes are often automatically activated and can influence human behavior without conscious volition, leading to increased commission of small racist acts. We investigated the extent to which implicit ethnic/racial bias exists among ethnic/racial groups in several different countries. We initially examined all countries where at least 500 people completed the IAT in 2017. This included 23 countries, primarily in North America and Europe. Significant anti-Black bias was found among all non-Black ethnic/racial groups in all countries examined, with those identifying as White and East Asian exhibiting the most anti-Black bias. We conducted a closer examination of scores and correlates in regions where over 2,250 people completed the IAT; this created six groups – USA, Canada, Australia & New Zealand, Germany, Scandinavia, and the United Kingdom. Bias was measured on a scale of -2 to +2, with positive values associated with pro-White bias and negative values with pro-Black bias. The mean anti-Black bias among non-Hispanic Whites was strikingly similar across the 6 regions (range 0.356-0.383;  $M=0.369$ ,  $SD=0.414$ ), with an effect size (eta squared) close to zero for the model. Mean country IAT scores are classified as indicating “strong,” “medium,” “slight,” or “little or no” bias, and the values noted for Whites are considered medium pro-White bias. We also examined how implicit bias was related to measures of explicit bias and other demographic



variables. Study limitations include that the IAT was administered in English, so results may not generalize to all groups within all countries. We discuss how widespread racial biases may contribute to mental health disparities for Black people cross-nationally.

### **The Impact of Sexual Racism on Gay and Bisexual Men of Color**

**Matthew Skinta, American Board of Professional Psychology, USA**

**Khashayar Farhadi-Langroudi, Kaiser Permanente - San Francisco, USA**

**Yash Bhambhani, University of Mississippi, USA**

Sexual racism refers to the expression of racist ideologies, ranging from denigration to fetishization, within sexual and romantic relationships. From the “Blanc, Buerre, Black” parties of Paris to dating app profiles in the U.S. stating a bias against those of African or Asian descent, sexual racism has a pernicious effect on LGBTQ people of color across white-majority countries, and has been most studied in its impact on gay and bisexual men of color (Callander, Holt, & Newman, 2016; Robinson, 2015). Online or physical spaces dedicated to sexual minority communities tend to serve as sites where racism and broader social prejudices are reenacted (Conner, 2018). The range of effects are broad, creating a sense of exclusion or devaluation for some GB MOC, and undermining the protective influence that community involvement generally is found to have for LGBTQ people (e.g., Han, 2007). Further, the propagation of messages that a man belongs to a devalued group results in a loss of agency surrounding sexual health decisions. This leads to some findings of greater condomless sex between GB MOC and white men, or the greater likelihood of exposure to HIV when GB MOC are excluded from interaction in predominantly white spaces (e.g., Grov, Rendina, Ventuneac, & Parsons, 2016). Geographical differences will be noted, as stereotypes about various races and ethnicities vary due to contact, local history, and stereotypes, and not all groups are present in all areas. For example, a great deal has been written about the fetishization or exclusion of Arab men in gay spaces in France, though the U.S. has had a much smaller population of LGBTQ immigrants of Arab descent prior to the recent refugee crisis (Mack, 2016). Clinical descriptions of work with asylum seekers or migrants from predominantly Arab nations emphasize the intersectional impact of anti-LGBTQ bias as well as racism and islamophobia, which occur both within and outside of LGBTQ spaces (Farhadi-Langroudi & Skinta, 2019). Scholarship in the U.S. on sexual racism, on the other hand, has emphasized the disparate experiences of GB MOC of African or Asian descent with a particular emphasis on the impact of sexual racism on the spread of HIV. Further, such patterns of objectification contribute to greater psychological distress as well as poorer body image among men of color living in the U.S. (Bhambhani, Flynn, Kellum, & Wilson, 2018; Bhambhani, Flynn, Kellum, & Wilson, 2019). In this presentation, global data will be reviewed on the varied impact sexual racism has among GB MOC, ranging from psychological distress to adverse health effects, and how these might inform culturally competent interventions within GB MOC populations.

### **New Tools for the Assessment of Trauma Due to Racism**

**Jamilah R George & Monnica Williams, University of Connecticut, USA**

Many ethnic minority groups experience higher rates of posttraumatic stress disorder (PTSD) and more debilitating PTSD symptoms compared to their White counterparts. This differential experience can be explained by the psychological impact of racism, which can itself be traumatic. PTSD caused by racism, or racial trauma, is likely to be under-recognized due to a lack of awareness among clinicians, discomfort surrounding conversations about race in therapeutic settings, and a lack of validated measures for its assessment. Racial trauma is the product of different stressors such as cultural or community trauma, microaggressions, institutional racism, or racial violence. It is also caused by two identifiable types of racial discrimination: overt (intentional and blatant discriminatory acts) and covert (passive acts of prejudice). Both of these have been linked to symptoms of depression, anxiety, substance abuse, agoraphobia, paranoia, and psychosis, among others. One of the primary limitations for the treatment of racial trauma is that it has not been acknowledged by the DSM-5 as a psychological disorder; it is only considered when the PTSD symptoms are in relation to a single racist event (e.g., a violent hate crime). Consequently, experiences of racial trauma are often captured as “other” or are mischaracterized via the description of an existing category. However, many people experience cumulative experiences of racism, such as everyday discrimination, leading to traumatization, thus these diagnostic criteria are inadequate. Therapists will have difficulty conceptualizing racial trauma as a trigger to PTSD until this problem is more widely recognized, and this is particularly relevant for therapists who are unfamiliar with such experiences themselves. This presentation will provide a theoretical basis for the traumatizing nature of various forms of racism, as well as the limitations of several gold-standard measures of PTSD. We then describe two new measures developed by our research team: UConn Racial/Ethnic Stress & Trauma Survey (UnRESTS) and the Trauma Symptoms of Discrimination Scale. Current uses of these measures in clinical care, forensics, and research will be discussed.

### **Hormones and Mood Symptomology Across Black and White Women: Implications for Assessment and Treatment**

**Courtney Louis & Jason Moser, Michigan State University, USA**

Although past research suggests that ovarian hormones (i.e., estradiol and progesterone) play an important role in the higher prevalence of anxiety and depression in women than men, it has neglected to examine racial differences in the relationship between hormones and mood symptoms. Moreover, very little research has examined the interaction between race, fluctuating hormones and mood across the menstrual cycle in pre-menopausal women. This has resulted in a compromised basic understanding of the relationship between hormones and mood vulnerability that would generalize across women. Thus, the current study tested the moderating role of race in relationships between hormones and daily mood symptoms in Black and White women. The sample included 66 naturally cycling women (21 Black; 45 White) between the ages of 18-25 measured across 35 days of their menstrual cycle. All women provided daily assays of saliva, from which estradiol and progesterone were extracted. They also completed daily measures of worry, anxious arousal and anhedonic depression. The analysis was conducted using multilevel models to test a race moderation of the hormone and mood relationship with person-mean centered hormone levels as predictors of mood symptoms. The results showed no relationship between progesterone and worry, anxious arousal or anhedonic depression (all  $p$ 's > .12), and this did not differ by race (all  $p$ 's > .07). However, there was a significant interaction between race and estradiol predicting worry and anxious arousal scores, such that higher estradiol fluctuations predicted less worry ( $b = -3.27$ ,  $p = .009$ ) and anxious arousal ( $b = -0.053$ ,  $p = .003$ ) for Black women. On the other hand, there was no relationship between estradiol and worry ( $b = 0.010$ ,  $p = .99$ ) or anxious arousal ( $b = .004$ ,  $p = .66$ ) in White women. Similarly, the relationship between estradiol and anhedonia also differed by race, such that estradiol fluctuations predicted higher anhedonia in White women ( $b = 1.80$ ,  $p = .004$ ), while there was no relationship in Black women ( $b = -1.01$ ,  $p = .44$ ). These results imply that the relationship between hormonal fluctuations and mood across the menstrual cycle differ between Black and White women across three measures of mood symptomology. Specifically, estradiol fluctuations may serve as a protective factor for anxiety and worry symptoms in Black women, while it may exacerbate anhedonic symptoms in White women. Building our clinical knowledge to understand how race, ovarian hormones and affect interact in women's daily experience

is critical for two reasons – (1) to build upon our clinical frame of reference for integrating these phenomena, and (2) to enrich our ability to provide more accurate and comprehensive assessments. With progress in these two areas, clinicians may engage in more precise and targeted treatment strategies during times of increased vulnerability for different women. Ultimately, the inclusion of demographic factors such as race in our understanding of women's mental health will allow for more individualized and comprehensive approaches to assessment and treatment.

### **The Race-Based Stress and Trauma Group Intervention for Veterans**

**Maurice Endsley, Edward Hines Junior Veterans Administration Hospital, USA**

**Monnica Williams, University of Connecticut, USA**

US veterans of color are at heightened risk for PTSD even after controlling for severity of war zone and post-deployment stressors, suggesting that unique experiences associated with being a racial minority, such as racial discrimination, may play a key role. Veteran status aside, racism, in its myriad forms, has been linked to depression, anxiety, chronic stress and other trauma and stress related conditions, including post-traumatic stress disorder as well as psychosis, and chronic health conditions including cardiovascular disease and stroke. Despite this reality, development of interventions to address the impact of race-based stress and trauma have been sorely lacking. To our knowledge there were no existing protocols to address the impact of race-based stress and trauma specific to the US veteran population. We aimed to address this gap in clinical services for US veterans of color. As such, we describe the development, implementation and dissemination of a multi-session group-based intervention to address the impact of race-based stress and trauma (RBST) among US veterans. Since its initial implementation at the outset of 2015, the protocol has been adapted to serve veterans at multiple sites within the Veteran's Affairs Healthcare System. Our presentation will delineate considerations and adaptations of traditional group-based psychotherapy and cognitive behavioral therapy (CBT) techniques, to veterans of color, including the utility of the cognitive model as a tool to for exploration and normalization of the ways in which experiences of racial injustices and oppression impact feelings (e.g., shame, hopelessness, helplessness, anger), thoughts/beliefs (e.g., "I am inadequate", "I am weak", "Just be polite and smile"), and behaviors/actions (e.g., social withdrawal, avoidance, passivity, rumination, using substances or food as coping mechanisms), and in turn, how this model can be leveraged to enhance understanding of one's own reactions, preventing internalization of negative messages about race.

We describe the incorporation of value-based coping to enhance behavioral activation and ultimately empowerment as veterans move towards reengaging within their community, and partaking in forms of action that are meaningful for them (e.g., advocacy, self-care, self-compassion). Using these methods, and leveraging a strengths based focus that celebrates group members' victories, this intervention aims to enhance positive racial identity and reduce internalized stigma, helplessness, and self-blame, fostering an increase in active coping methods and in turn enhancing resilience and empowerment. Although not a direct focus of the group, the group setting among veterans with shared experiences with racism fostered meaningful and repeated exposure to distressing memories.

Beyond classic cognitive-behavioral theory, we also address the relevance of facilitators' intersecting identities (e.g., racial identity, gender, socioeconomic status), cross-racial facilitator-client considerations, navigating dimensions of diversity within the group, the importance of cultural humility and ongoing self-reflection. Finally, we review lessons learned, areas for growth and improvement, Veteran and clinician/facilitator feedback, and next steps including data collection efforts.

## **Symposia 21: Training & Supervision**

### **How Can We Develop More Effective Therapists? Implications of the Effective Therapists' Literature for Training, Supervision, and Professional Development**

**Convenor: James Bennett-Levy, University of Sydney, Australia**

**Chair: James Bennett-Levy, University of Sydney, Australia**

**Discussant: Christoph Flückiger, University of Zurich, Switzerland**

#### **Towards More Effective Therapists: What Are Their Qualities and in What Situations Are They Most Apparent?**

**Michael Barkham, University of Sheffield, United Kingdom**

Paper 1: Michael Barkham will present evidence showing the differential effectiveness between therapists and its impact via patient outcomes. This sets the context for a brief overview of the literature on therapist effectiveness and the potential personal qualities underpinning differential effectiveness. These components will be set out and attention will be paid to emerging evidence of more dynamic qualities that might be displayed by more effective therapists. It is argued that differential therapist effectiveness may be context or situation dependent and greater understanding of these influences is needed. Potential implications for enhancing the therapist selection, training, and supervision will be considered and suggestions for building a more robust evidence base regarding the qualities underpinning therapist effectiveness are presented.

#### **Personal Practice and Self-Reflection are Important in Developing More Effective Therapists but Sometimes There Are Problems: How Can These Be Addressed?**

**James Bennett-Levy, University of Sydney, Australia**

Drawing on the effective therapists' literature and a recently developed model of personal practice (Bennett-Levy, 2019; Bennett-Levy & Finlay-Jones, 2018) we shall suggest: (1) personal and interpersonal qualities are central to the development of the most effective therapists; and (2) personal practice and self-reflection are key strategies to develop these qualities. However, integrating personal practice into busy training programs and professional lives is not simple. This paper will identify some of the barriers to therapists' engagement with personal practices: for instance, time and emotional pressures, therapists' assessment of the value of personal practice, impact of different training/supervision contexts, and fears around personal and professional safety which all play a part in willingness to engage with personal practice. How can these be addressed? As an example, we shall highlight some of the strategies which have helped to create safe and effective SP/SR programs.

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## **How Can We Best Develop Our Personal and Professional Qualities to Maximize Client Outcomes?**

**Helene Nissen-Lie, University of Oslo, Norway**

Drawing on my own (Nissen-Lie et al., 2017; Nissen-Lie & Orlinsky, 2014) and others' research and conceptual work (Hatcher, 2015; Orlinsky & Rønnestad, 2005; Rønnestad & Skovholt, 2013), I will address development and training of optimal personal and professional qualities that have demonstrated to be linked to patient outcomes in empirical studies (Heinonen & Nissen-Lie, in press). In particular, I will review the empirical literature on how therapists' intra- and interpersonal functioning (attachment patterns, reflective functioning, mindfulness and interpersonal skills) as well as difficulties and coping in therapeutic work affect professional role performance and clinical effectiveness of therapists. In light of these findings, the major part of my presentation will focus on how this knowledge can be translated into practical implications and guidelines for training, supervision and the development of psychotherapists. In the presentation, I will discuss different ways in which the most optimal and empirically validated personal and professional characteristics can be cultivated in therapists-to-be and practicing therapists.

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## **Can New Technologies Help to Develop More Effective Therapists?**

**David Murphy, University of Nottingham, United Kingdom**

In this paper I will provide a brief overview of research on existing models of interpersonal skills development. The presentation will focus on the use of innovative technology to support and enhance learning interpersonal skills. Specifically, I will introduce a new web-based system, mPath, to support reflection-on-practice through the use of video within a multi-layered annotation facility (Murphy et al., 2017; Slovak et al., 2015). The system aims to support and advance the process of learning interpersonal skills through extended self-reflection, critical analysis of therapeutic skills sessions, and access to feedback from peers and instructors. Two recent studies have trialed and evaluated the system suggesting that mPath contributes to higher level skills in users on a counselling program (Murphy, et al., paper under review) and in a psychiatry setting (Liao & Murphy, paper under review). The presentation will include a basic demonstration of the software and overview of functionality.

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## **Why Are Some Therapists More Effective than Others?**

**Convenor: Jaime Delgadillo, University of Sheffield, United Kingdom**

**Chair: Michael Barkham, University of Sheffield, United Kingdom**

**Discussant: David Saxon, University of Sheffield, United Kingdom**

## **How Research on Therapist Effects Can Support Modern Treatments: Self-Confidence in Critical Treatment Parameters as a Therapist Factor**

**Anne-Katharina Deisenhofer, Manuela Schmitt & Wolfgang Lutz, University of Trier, Germany**

A growing body of research attests the existence of therapist effects. In contrast, fewer studies focus on the explanation of this phenomenon. Therefore, the aim of the present analyses was to investigate the role of self-confidence in critical treatment parameters as a therapist factor that might explain therapist differences in patient outcomes. The analyses were based on a sample of N = 556 patients treated by 41 therapists who applied for individual psychotherapy at a university outpatient clinic. Treatment in the clinic included feedback and the usage of clinical problem solving tools. The therapist effect was investigated using multilevel analyses with three different outcome measures (OQ-30, PHQ and FEP) as dependent variables and self-confidence in critical treatment parameters as predictor variables. Results showed that being more confident with regard to one's own psychotherapeutic abilities, especially with regard to the use of psychometric feedback, significantly enhanced treatment outcome across all three outcome measures. Implications for training and the implementation of feedback systems are discussed.

## **Exploring the Underpinnings of Differences in Trainee Therapists' Interpersonal Skills**

**Kim de Jong & Kane Steggle, Leiden University, the Netherlands**

**Timothy Anderson, Ohio University, USA**

Therapist effects seem to be more pronounced in more severe cases (Saxon & Barkham, 2012). It seems intuitive that the majority of therapists are able to help relatively 'easy' cases, but in order to effectively treat more complex cases greater skills are needed. Therapists' interpersonal skills in particular have been a consistent predictor of therapist outcomes. However, it is yet unclear whether some therapists just have better skills than others, or if some therapists are just better in utilizing their skills in complex, and thus potentially more stressful, therapy situations. The current pilot study (N=30) investigates trainee therapists' interpersonal skills in benign and complex therapy situations, and measures the therapists' physiological responses while they are conducting the task. Participants were asked to respond to video vignettes in real time, while imagining they were the therapist of the client in the video. In the benign cases, the clients would tell the therapist about a personal situation that had been difficult for them. In the complex situations, an interpersonal conflict was played out (e.g. idealizing, getting angry). Preliminary results showed that trainee therapists did not consider the benign and complex cases to differ in difficulty, but they did report more distress in the complex cases. Their scores on interpersonal functioning did not differ between the two groups of responses, suggesting that therapists use similar levels of interpersonal skills in the benign and complex cases, thus may indeed differ in skill level, rather than in their selective utilization of skills. No differences between conditions were found on heart rate variability and galvanic skin response.

## **Therapist Effects: Examining the Roles of Clinical Experience, Competence, Reflective Ability and Personality**

**Jaime Delgadillo, University of Sheffield, United Kingdom**

**Amanda Branson, University of Reading, United Kingdom**

**Stephen Kellett, University of Sheffield, United Kingdom**

**Pamela Myles-Hooton, University of Reading, United Kingdom**

**Gillian E. Hardy, University of Sheffield, United Kingdom**

**Roz Shafran, UCL Great Ormond Street Institute of Child Health, United Kingdom**

This study investigated the role of therapists' clinical competence, reflective ability, experience and personality in the delivery of effective psychological treatment. Data was analysed for a sample of N = 4052 patients treated by 69 therapists (36 Psychological Wellbeing Practitioners [PWP], 33 cognitive behavioural therapists [CBTs]). During their clinical training, therapists reported their years of clinical experience, they completed the NEO-PI-R personality assessment, and expert trainers assessed their clinical competence and reflective ability using structured rating scales. Patients treated during training and up to 24 months post-qualification were asked to complete validated measures of depression (PHQ-9) and anxiety (GAD-7) symptoms. Associations between therapist variables and treatment outcomes were examined using multilevel modelling. Clinical experience, competence and reflective ability were unrelated to treatment outcomes. Patients treated by PWPs with higher NEO-PI-R agreeableness scores and CBTs with higher NEO-PI-R openness to experience scores tended to have poorer treatment outcomes. Therapist effects accounted for 1% to 3% of variability in treatment outcomes. The best-performing therapists outperformed average therapists by a margin of moderate to large effect sizes ( $g = .57$  to  $1.10$ ). We conclude that differential effects between therapists are partly explained by the influence of their personality traits on their relationships and work with patients.

## **Self-Practice/Self-Reflection (SP/SR) at 18: An Experiential Training Strategy Maturing into Adulthood?**

**Convenor: Richard Thwaites, Cumbria Partnership NHS Foundation Trust, United Kingdom**

**Chair: Richard Thwaites, Cumbria Partnership NHS Foundation Trust, United Kingdom**

**Discussant: James Bennett-Levy, University of Sydney, Australia**

## **Self-Practice/Self-Reflection (SP/SR) After 18 Years of Research: Where Are We Now?**

**Richard Thwaites, Cumbria Partnership NHS Foundation Trust, United Kingdom**

The first SP/SR research was published in 2001. Since then there has been an exponential growth in both implementing and researching this experiential training strategy. This introductory presentation will provide an overview of the approach, how and where it has been implemented and the published research findings to date.

## **SP/SR and Autoethnography: A Marriage Made in Heaven!**

**Craig Chigwedere, Trinity College Dublin and St Patrick's Hospital, Ireland**

Self-Practice/Self-Reflection (SP/SR) allows cognitive behavioural therapists (CBT) to self-experience the techniques they use clinically. However, it is difficult to find published first-hand accounts of CBT-therapists' SP/SR experiences. This may be because CBT research is primarily colonial, positivist and objective, while SP/SR is intrinsically subjective. Autoethnography is a subjectivist qualitative research methodology that combines elements of autobiography and ethnography. Combining it with SP/SR practice potentially creates an SP/SR specific subjectivist methodology. Such an approach may allow CBT therapists to write-up their SP/SR experiences as rich, first-hand research material, which can influence wider theory and practice. This novel approach will be described and illustrated using the presenter's self-practice CBT model of worry. The haptic nature of SP/SR and therapy, and how that combines with theory will be illustrated. As such, this useful case study approach may be rightly called a 'haptic autoethnography', which is differentiated from standard autoethnography by its strong focus on the impact of personal experience on theory.

## **The Self-Reflective Writing Scale (SRWS): A New Measure to Assess Self-Reflection Following Self-Experiential Cognitive Behaviour Therapy Training**

**Suzanne Ho-wai So, University of Hong Kong, Hong Kong**

Evaluation of SP/SR as an experiential training method has relied heavily on qualitative analyses of reflective writings or focus group discussions. This study reported the development of the SRWS, the first theory-based measure for assessing personal-self (PS) reflection and therapist-self (TS) reflection. We analysed 148 written reflections by 36 clinical psychology students who underwent SP/SR training. Two trained raters co-rated 50 reflections and reached an acceptable level of inter-rater reliability. Level of TS reflectivity was positively

correlated with interpersonal skills in the therapeutic context (as rated by placement supervisors). The SRWS is a helpful tool for assessing effectiveness of SP/SR.

### **Self-Practice/Self-Reflection in Post-Graduate Cognitive Behaviour Therapy Training: Two Pilot Studies**

**Jane Scott & Katie Bunch, Australian Catholic University, Australia**

**Beverly Haarhoff, Massey University, New Zealand**

**Perry Helen & Bennett-Levy James, University of Sydney, Australia**

**Introduction/Background:**

Structured self-practice/self-reflection (SP/SR) programs have been shown to increase therapist self-awareness and enhance understanding of CBT principles and techniques. However, to date, most SP/SR studies have relied on qualitative evidence, and there have been only a handful of quantitative SP/SR studies. In this presentation, we report two quantitative studies which explored the value of incorporating SP/SR into basic CBT training.

**Methods:**

**Study 1:** Master of Psychology (MPsych) students who participated in a 12-week SP/SR program were compared on a range of measures with a 12-week CBT 'book club' discussion group.

**Study 2:** A group of MPsych students who completed a 7-week CBT training program with embedded SP/SR training were compared with a group who completed the CBT training without embedded SP/SR.

**Results:**

**Study 1:** A series of one-between (group) one-within (time) SPANOVAs were conducted for each outcome variable. Results showed significant time effects on measures of CBT utilization, CBT confidence, and self-awareness, indicating increases in both groups on these variables, and a significant group by time interaction for CBT confidence, with a greater increase in CBT confidence in the SP/SR group.

**Study 2:** Results of a MANOVA showed a significant omnibus effect and that the SP/SR training group had significantly higher CBT confidence, self-awareness, and lower levels of burnout than the group who had CBT training without SP/SR.

**Conclusion:**

Embedding SP/SR in postgraduate CBT training may have positive effects on students' CBT confidence, self-awareness and burnout levels. Further research with larger sample sizes is required.

**Disclosure of Interest Statement:**

The authors have no conflicts of interest to disclose.

### **How to Learn More About Cognitive Behavioral Therapy-Training and How to Reach Beyond Basic Training?**

**Convenor: Andreas Veith, University Witten/Herdecke, Germany**

**Chair: Andreas Veith, Center for Psychotherapy Dortmund, Germany**

**Discussant: Anton-Rupert Laireiter, University of Vienna, Austria**

### **Psychotherapy Training: Trainees' Experiences in the Early Phase of their Training. First Results from the SPRISTAD International Study**

**Ulrike Willutzki, University Witten/Herdecke, Germany**

**David Orlinsky, University of Chicago, USA**

Worldwide elaborate programs for psychotherapy training have been set up, associated with high time and money investments for trainees, trainers and patients. At the same time very little is still known trainees experiences early in their training and about what impact training elements have on trainees. Since 2011 a group of psychotherapists and psychotherapy researchers has worked on establishing an international study on psychotherapy training, the Society for Psychotherapy Research Interest Section on Therapist Training and Development (SPRISTAD; <https://www.psychotherapyresearch.org/page/SPRISTAD>).

Up to now more than 50 training sites from 18 countries have contributed to the study by describing the respective program and inviting their trainees to share their training experiences. About 200 trainees (mostly from German speaking countries) have described their training as clearly cbt-oriented. Their pathways into the profession will be described and compared to trainees from other orientations. Moreover, a subgroup has also described their experiences in the early phase of their training in the longitudinal module of SPRISTAD: Their current practice, how they experience their professional status (competence, difficulties etc.). In addition they evaluate the training elements involved in the training.

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### **How Can We Clarify the Role of Personal Therapy in Training – Remarks Based upon a Systematic Review**

**Bernhard Strauss, University of Jena, Germany**

Usually, conclusion related to the need and importance of personal therapy during psychotherapists' training state that personal therapy is not related to any outcome criterion. In contrast, there are some studies indicating at least a high subjective importance of personal therapy, although varying between countries, psychotherapeutic methods etc.

Since the evidence so far, seems to be confusing and contradictory, a systematic review of the literature related to personal therapy is conducted with the goals to a) clarify the results and b) make some proposals for research approaches and designs to proceed in this field of training research.

### **How to Facilitate Evidence-Based Practice and Motivate for Advanced Psychotherapy Training**

**Franziska Kühne, Jana Maas & Florian Weck, University of Potsdam, Germany**

Several heuristic models refer to ideal-typical stages of psychotherapeutic competences, ascending from novice to expert (e.g., Dreyfus, 2004; Sharpless & Barber, 2009). Although the development of psychotherapeutic competences is conceptualized as a life-long process, little is known about how to foster them extra-occupationally. Attitudes towards evidence-based practice seem to play a crucial role in the dissemination of research-based information into psychotherapy practice and in the use of extra and advanced trainings (Gaudiano & Miller,

2013). First, the presentation will give an overview of the role of evidence-based practice for advanced psychotherapy training. Theoretical approaches, for example on the diffusion of innovations (Rogers, 2010), and empirical studies in the field of mental health will be outlined (e.g., Aarons, 2004). Second, the results of a survey with participants in a specific two-day workshop for licensed therapists will be presented. The N = 48 participants were asked for their attitudes towards evidence-based practice and for motivators and barriers for attendance of advanced trainings per se. For respondents, professional improvement and personal interest were the most common motivators, whereas social incentives and occupational advancements were less relevant. Although openness towards evidence-based practice seemed high, more and less evidence-based interventions were actually used. The survey results will be integrated into the theoretical overview given in the first part of the presentation, and discussion of the concept of evidence-based psychotherapy will be initiated.

#### **Stuck Points in CBT Training**

**Lynn McFarr, Harbor-UCLA Medical Center, USA**

**Sarah Klein, West LA VA, USA**

Given the preponderance of evidence supporting the efficacy of cognitive behavior therapy (CBT), there has been an increased emphasis on dissemination to community mental health systems (CMH). This talk will focus on the challenges for implementation of CBT with community mental health clinicians with respect to support, assistance, and resources CMH clinicians need as they continue to build CBT competency. Common stuck points in training and supervision will be discussed. Several basic strategies identified by trainers to be commonly used during consultation/supervision (adherence to structure, behavioral rehearsals, practice sample review, and case consultation) will be reviewed. Additionally, difficulties in implementing the most effective strategies including experiential learning, practice sample review, and case conceptualization will be discussed. Finally, the relation between implementation models that add case consultation and treatment adherence and intervention skill across CMH clinicians will be highlighted.

#### **Symposia 22: German language**

##### **Aktuelle Kognitive Verhaltenstherapie: Konzeptuelle und praktische Integration fehlender Elemente**

**Convenor: Franz Caspar, University of Bern, Switzerland**

##### **Einführung in die Studie und einen Überblick über die bisherigen Ergebnisse**

**Franz Caspar, Universität Bern, Schweiz**

Dieses Referat führt in die Studie ein. Es handelt sich um einen RCT mit Integration von EFT- (Emotionsfokussierter Therapie-)Elementen in der einen, einer praxisorientierten Ausarbeitung des Selbstinstruktions-Ansatzes in der anderen Bedingung. Basis ist in beiden Bedingungen dieser praxisnahen Studie «Berner Treatment as usual», was weitgehend der Psychologischen Therapie nach Grawe entspricht. Bisherige Ergebnisse zeigen wie erwartet gewissen, aber keine starken Unterschiede im Prä-Post-Vergleich zwischen den beiden Therapieformen, welche beide hocheffizient waren. Auswertungen der Prozesse zeigen aber interessante und relevante Unterschiede, wobei es scheint, dass «verschiedene Wege der Emotionsbearbeitung nach Rom führen».

##### **Was passiert in den Therapiesitzungen vor einem plötzlichen Veränderungssprung? – Ein Vergleich zwischen bewältigungs- und klärungsorientierter Psychotherapie**

**Sara Heer & Thomas Berger, Universität Bern, Schweiz**

**Jenny Gex-Fabry, Klinik im Hasel AG, Schweiz**

**Anna Babl, Universität Bern, Schweiz**

**Mu Lin, Universität Bern & Psychiatrische Universitätsklinik Zürich, Schweiz**

**Annabara Stähli, Universität Bern, Schweiz**

**Martin grosse Holtforth, Universität Bern & Universitätsspital Bern, Schweiz**

**Franz Caspar, Universität Bern, Schweiz**

Theoretischer Hintergrund: Die Auftretenshäufigkeit plötzlicher Gewinne (Sudden Gains) liegt je nach untersuchter Patientenstichprobe und eingesetztem Erhebungsinstrument zwischen 17% und 50%. Bisherige Befunde sprechen dafür, dass plötzliche Gewinne positiv mit dem Therapieergebnis zusammenhängen. Die Effektstärke fällt dabei moderat bis gross aus, wobei sie in der Kognitiven-Verhaltenstherapie grösser ist als bei Nicht-KVT-Therapien. Niedrigste Effektstärken weisen diejenigen Patienten auf, welche plötzliche Gewinne und Verluste während des Therapieprozesses erleben. Trotz der Vielzahl empirischer Befunde zur Relevanz von plötzlichen Veränderungen sind die genauen Prädiktoren bislang umstritten. Das Ziel dieser Studie ist es zu untersuchen, unter welchen Umständen plötzliche Gewinne und Verluste auftreten und ob sich diese Prädiktoren zwischen einem bewältigungsorientierten und klärungsorientierten Therapieansatz unterscheiden. Methode: Im Rahmen des Improve-Projekts wurden Patienten entweder mit einem vorwiegend bewältigungsorientierten oder klärungsorientierten Therapieansatz behandelt. Anhand der von Tang und DeRubeis entwickelten Kriterien wurden bei einer Teilstichprobe (N = 79) Patienten mit einer plötzlichen Symptomverbesserung und -verschlechterung bestimmt. Videoaufzeichnungen der beiden dem Veränderungssprung vorangehenden Therapiesitzungen wurden anhand einer angepassten Version des Manuals zur Erfassung therapeutischer Prozesse und Interventionen (MEPI; Tschitsaz & Lutz, 2007) analysiert.

Resultate: Insgesamt wiesen 36.71% der Patienten (N = 29) mindestens einen plötzlichen Veränderungssprung auf. Diese wurden mit Patientinnen ohne solcher Veränderungsmuster hinsichtlich ihres Therapieerfolgs verglichen. Weiter wurde untersucht, unter welchen Umständen plötzliche Veränderungen auftreten und welche Patienteneigenschaften positiv mit einer sprunghaften Symptomveränderung korrelieren. Zuletzt wurden die beiden Therapiebedingungen hinsichtlich ihrer Prävalenz und Prädiktoren für Veränderungssprünge verglichen. Schlussfolgerung: In dieser Studie werden plötzliche Gewinne und Verluste hinsichtlich ihres Zusammenhangs zum Therapieergebnis, vorangehender Therapieprozesse und Patientenveränderungen sowie deren Bedeutung für die Routinepraxis diskutiert. Schlüsselwörter: Sprunghafte Symptomveränderungen, diskontinuierliche Therapieverläufe, individuelle Veränderungsmuster, Prozessergebnisforschung, Kognitive Verhaltenstherapie, Emotionsfokussierte Therapie, Wirkfaktoren

## **Führen unterschiedliche Wege nach Rom? Analyse von Sequenzen der emotionalen Verarbeitung im Berner Ansatz, einer integrativen Form der kognitiven Verhaltenstherapie**

**Annabara Stähli, Franz Caspar, Thomas Berger & Martin grosse Holtforth, Universität Bern, Schweiz**

**Ziel:** Über verschiedenen Therapieschulen hinweg gilt die emotionale Verarbeitung als wichtiger Veränderungsmechanismus. So konnte in unterschiedlichen Studien gezeigt werden, dass erfolgreiche emotionale Verarbeitung mit besserem Therapieergebnis in Zusammenhang steht. Das sequentielle Modell der emotionalen Verarbeitung von Pascual-Leone und Greenberg (2007) beschreibt spezifische Sequenzen emotionaler Zustände, die bei erfolgreicher emotionaler Verarbeitung durchlaufen werden. Obwohl das Modell bereits empirisch gut validiert ist, wurde es bisher noch nicht im Rahmen der kognitiven Verhaltenstherapie untersucht. Das Ziel der vorliegenden Studie ist es deshalb, Sequenzen der emotionalen Verarbeitung gemäss diesem Modell im Berner Ansatz, einer integrativen Form der KVT, zu untersuchen. Darüber hinaus soll getestet werden, welchen Einfluss die Integration von emotionsfokussierten Therapieelementen auf die Art und die Häufigkeit der Sequenzen hat.

**Methode:** In der vorliegenden Studie wurden N = 82 Patienten des Improve-Projekts untersucht. Die Behandlung bestand entweder aus 25 +/- 3 Sitzungen integrativer kognitiver Verhaltenstherapie mit zusätzlich ausgearbeiteten Selbstregulationsaspekten (KVT+SR; Caspar, 2016) oder integrativer kognitiver Verhaltenstherapie mit integrierten Elementen der Emotionsfokussierten Therapie (KVT+EFT; Greenberg, 2004). Zur Erfassung der emotionalen Verarbeitungszustände wurde die Classification of Affective-Meaning States (CAMS; Pascual-Leone & Greenberg, 2005) verwendet. Pro Patient wurde eine Sitzung analysiert, in der emotionale Inhalte bearbeitet wurden. Das Rating der emotionalen Zustände erfolgte dabei für die gesamte Sitzung auf Minutenebene.

**Resultate:** Es wurde getestet, ob die sequentielle Abfolge der emotionalen Zustände, wie sie vom sequentiellen Modell der emotionalen Verarbeitung postuliert wird, im Berner Ansatz replizierbar ist. Zudem wurden die Art und die Häufigkeit der Sequenzen mittels Gruppenvergleichen und der THEME Analyse (Magnusson, 2000) zwischen den beiden Bedingungen verglichen. Weiter wurden bedingungsspezifische Sequenzen identifiziert.

**Diskussion:** In der vorliegenden Studie wurde untersucht, ob das sequentielle Modell der emotionalen Verarbeitung einen therapieschulenübergreifenden Veränderungsprozess beschreibt, welcher unabhängig von therapeutischen Interventionen stattfindet. Zudem wurden spezifische Sequenzen der beiden Bedingungen identifiziert und im Hinblick auf die Integration von EFT-Elementen diskutiert.

**Schlüsselwörter:** emotionale Verarbeitung, kognitive Verhaltenstherapie, emotionsfokussierte Therapie, Psychotherapie-Integration, sequentielles Modell der emotionalen Verarbeitung, randomisiert-kontrollierte Studie

## **Empathische Reaktionen der TherapeutInnen: Quellen oder Einleitung zur motivationalen Klärung und zum Selbstmitgefühl der PatientInnen?**

**Mu Lin, Universität Bern, Schweiz**

Die aktuelle Metaanalyse zeigt nach wie vor, dass die von PatientInnen wahrgenommen Empathie stark mit dem Therapieergebnis zusammenhängt. Wie sehr die PatientInnen sich verstanden fühlen, geht dabei auf die empathischen Reaktionen der TherapeutInnen zurück. Des Weiteren können die Wirkungen der Empathie bereits im Laufe der Therapie beobachtet werden. Auch im KVT-Kontext wurden mehrere ähnliche Wirkungen postuliert. Zu solchen vielseitigen Funktionen der Empathie gehören z.B. die Erleichterung der Fallkonzeption sowie die Förderung bestimmter traditioneller KVT-Techniken. Andererseits wurde die "problematische Empathie" zunehmend thematisiert. Dies weist darauf hin, dass ein gezielter Einsatz der Empathie als eine aktive therapeutische Methode von weiteren evidenzbasierten Heuristiken abgeleitet werden sollte. Diese Studie hat zum Ziel, die grundlegenden Wirkmechanismen der Empathie der TherapeutInnen zu untersuchen. Dieser Vortrag thematisiert Zusammenhänge zwischen empathischen Reaktionen und allgemeinen Wirkfaktoren sowie klinisch vielversprechenden Outcomes. Ferner liegt der Fokus bzgl. empathischer Reaktionen im Rahmen dieser Studie auf dem Ausdruck des Mitschwingens (Attunement), des Verständnisses über Gefühle und innere Erfahrungen sowie des Verständnisses über kognitive Konstruktionen und Bedeutungsverleihungen der PatientInnen. Um die direkten und indirekten Effekte zu vergleichen, werden die jeweiligen Einflüsse dieser empathischen Reaktionen auf die motivationale Klärung und das Selbstmitgefühl (Self-Compassion) in unterschiedlichen Phasen unter die Lupe genommen. Zum Schluss sind die potentiellen Mediatoren sowohl im Allgemeinen als auch phasenspezifisch darzustellen.

## **Wie finden kompetente TherapeutInnen das Gleichgewicht zwischen Herausforderung und Unterstützung?**

**Laura Möseneder & Franz Caspar, Universität Bern, Schweiz**

Die Balance zu finden zwischen Herausforderungen zur Förderung von Veränderungen und Unterstützung zur Herstellung von Sicherheit für PatientInnen ist eine der Heuristiken, die für eine erfolgreiche Psychotherapie empfohlen werden. Herausforderung und Unterstützung kann als Förderung oder Behinderung von Motiven von PatientInnen verstanden werden, basierend auf der Methode «Plananalyse» und den damit verbundenen Theorien zur Erklärung des Funktionierens von Menschen aufgrund ihrer Motive. Motive können als problematisch oder unproblematisch eingestuft werden. Die Kombination des oben genannten führt zu vier grundlegenden Modi für TherapeutInnen: die Förderung oder Behinderung problematischer Motive von PatientInnen sowie die Förderung oder Behinderung unproblematischer Motive von PatientInnen. Diese vier Modi wurden in einer Stichprobe basierend auf der IMPROVE-Studie an der Universität Bern gemessen. Der gemeinsame theoretische Hintergrund der TherapeutInnen in der Stichprobe liegt in der integrativen kognitiven Verhaltenstherapie (Schwerpunkt KVT unter Einbeziehung empirisch unterstützter Methoden und Konzepte aus anderen Ansätzen, z.B. Systemtherapie oder EFT) ergänzt durch "Berner" Konzepte (Caspar, 2007; Grawe, 2004). Drei Sitzungen (zufällig aus jedem Drittel der Therapien ausgewählt) von 60 Therapien wurden hinsichtlich der Kompetenz der TherapeutInnen in Form der Anwendung der vier genannten Modi bewertet (Förderung oder Behinderung der problematischen Motive von PatientInnen, Förderung oder Behinderung der unproblematischen Motive von PatientInnen). Die Daten werden sowohl in Bezug auf die Prozesse innerhalb der Sitzungen als auch über Therapien hinweg analysiert. Wir erwarten einen positiven Zusammenhang zwischen dem Therapieergebnis und der Förderung unproblematischer Motive(=Unterstützung) und der Behinderung problematischer Motive(=Herausforderung) durch TherapeutInnen. Wir erwarten auch einen negativen Zusammenhang zwischen dem Therapieergebnis und der Förderung problematischer Motive und der Behinderung unproblematischer Motive. Die Auswirkungen auf die Behandlung und die weitere Erforschung der Ergebnisse werden diskutiert.

## **Schematherapie bei Depressionen: Anwendung in Psychiatrie und Psychotherapie**

**Convenor: Martin E. Keck, Max-Planck-Institut für Psychiatrie München, Deutschland**

**Chair: Martin E. Keck, Max-Planck-Institut für Psychiatrie München, Deutschland**

### **Effekte auf die depressive Symptomatik nach einer 4-wöchigen stationären psychosomatischen Behandlung**

**Eckhard Roediger, Institut für Schematherapie Frankfurt, Deutschland**

Die Schematherapie zählt im ambulanten Bereich mittlerer Weile zu den evidenzbasierten Weiterentwicklungen der Verhaltenstherapie zur Behandlung von Persönlichkeitsstörungen bzw. -akzentuierungen. Wirksamkeitsnachweise im stationären Setting fehlen bisher weitgehend. Diese klinische Studie gibt Hinweise auf eine gute Wirksamkeit auch in einer 4-wöchigen stationären Behandlung in einem schematherapeutisch ausgerichteten Setting einer psychosomatischen Akutstation unter naturalistischen Behandlungsbedingungen. Bei 448 Behandelten wurde im PHQ insbesondere die depressive Symptomatik deutlich gebessert ( $d = 1.0$ ).

### **Stationäre Schematherapie: Ein Behandlungskonzept**

**Matias Valente, Psychiatrische Klinik Weissenhof, Germany**

Die Schematherapie ist ein integratives Modell zur Behandlung von Persönlichkeitsstörungen, welches die kognitive Verhaltenstherapie durch psychodynamische, gestalttherapeutische und bindungstheoretische Elemente ergänzt. Während ihre Wirksamkeit in der ambulanten Behandlung von Persönlichkeitsstörungen bereits in verschiedenen kontrolliert-randomisierten Studien nachgewiesen werden konnte (Bamelis et al. 2014; Nadort et al. 2009; Farrell et al. 2009; Giesen-Bloo et al. 2006), finden sich für die stationäre Anwendung der Schematherapie bis dato nur Pilotstudien (Reiss et al. 2014). Dies ist v.a. der Tatsache geschuldet, dass die Schematherapie eine verhältnismäßig junge Entwicklung der Verhaltenstherapie ist.

In der psychosomatischen Abteilung des Zentrums für Psychiatrie Weinsberg wird Schematherapie seit 2006 für Patienten mit Persönlichkeitsstörungen angewendet. Ca. 60% der Teilnehmer am Schematherapie-Programm leiden komorbid an einer Depressiven Störung, in den meisten Fällen rezidivierend. Durch die Integration behavioristischer und ressourcenaktivierender Elemente in die schematherapeutische Behandlung erweist sich das Konzept der stationären Schematherapie als sehr effektive Methode zur kombinierten Behandlung von Depression und Persönlichkeitsstörungen. Dieses Behandlungskonzept wurde im Rahmen einer Wirksamkeitsstudie mit 22 Patienten mit einem randomisierten multiplen Baseline Design im Jahr 2018 untersucht. Die Auswertung der Daten erfolgt derzeit. Im Vortrag wird das Behandlungsprotokoll zur Behandlung von Persönlichkeitsstörungen und komorbider Depression vorgestellt.

### **Optimierte Psychotherapie-Identifikation am Max-Planck-Institut für Psychiatrie – Die OPTIMA-Studie: Vorstellung von Erfahrungen und erster Resultate**

**Martin E Keck, Samy Egli, Martin Rein, Nils Kappellmann, Julia Fietz, Katharina Rek & Johannes Kopf-Beck, Max Planck Institute für Psychiatrie, München, Deutschland**

Die Beliebtheit der Schematherapie hat sich schneller entwickelt als die Evidenz zu ihrer Wirksamkeit. Wir stellen Erfahrungen und erste Resultate der OPTIMA-Studie vor, ein randomisiert-kontrollierter Vergleich eines zweimonatigen tagklinischen und stationären Behandlungsprogramms für Patienten mit depressiven Störungen, welche entweder mit kognitiver Verhaltenstherapie, Schematherapie oder individuell-supportiver Therapie behandelt werden. Zunächst soll das Studiendesign, sowie das klinische Alltagssetting in das es implementiert wurde, dargestellt werden. Wir berichten von Chancen, aber auch von überwundenen und zu überwindenden Herausforderungen im Prozess. Die ersten Daten zur Wirksamkeit und Akzeptanz des Studienprotokolls aller drei Behandlungsarme im prä-post-Vergleich primär von BDI-II, MADRS und Dropout-Raten werden berichtet und im Kontext der Resultate von vergleichbaren Studien diskutiert. Zusammenfassend kann gesagt werden, dass sich das Programm als hochwirksam erwiesen hat. Schließlich werden erste Auswertungen zur Aktivierung von allgemeinen therapeutischen Wirkfaktoren und Zusammenhänge bzw. Unterschiede zu ausgewählten psychometrischen Maßen zwischen den Behandlungsarmen aufgezeigt. So wird anhand der Daten z.B. die Hypothese überprüft, ob in der Schematherapie stärker als in den anderen beiden Verfahren die therapeutische Beziehung und die emotionale Aktivierung bearbeitet wird und inwieweit dies wiederum Auswirkungen auf Persönlichkeitsvariablen und Emotionsregulation hat.

### **Von der Diagnostik zu Therapiemöglichkeiten bei nicht-suizidalem selbstverletzenden Verhalten bei Jugendlichen und jungen Erwachsenen im ambulanten und stationären Setting**

**Convenor: Tina In-Albon, Universität Koblenz-Landau, Deutschland**

#### **Der diagnostische Prozess bei NSSV**

**Tina In-Albon, Sophie Pleiß & Laura Kraus, Universität Koblenz-Landau, Deutschland**

Der diagnostische Prozess bei NSSV ist geprägt von der Abklärung von Suizidalität. Daher ist die Abklärung von Prädiktoren und dem Schweregrad von NSSV wesentlich. Dabei stellt sich die Frage, was den Schweregrad von NSSV ausmacht. Zur Erfassung des NSSV Schweregrads wird ein Instrument vorgestellt, dessen Gütekriterien in mehreren klinischen Stichproben (ambulant und stationär) untersucht wurde.

Anhand von 121 Probanden ( $M = 21.75$  Jahre) wurde der prädiktive Einfluss der wahrgenommenen Fähigkeit zur Emotionsregulation auf einzelne Facetten des NSSV Schweregrades untersucht. Mit multiplen Regressionsanalysen wurde explorativ ein Mediator- und ein Moderatormodell des NSSV Schweregrades auf den Zusammenhang zwischen der wahrgenommenen Fähigkeit zur Emotionsregulation und der Suizidalität geprüft.

Es konnten signifikante prädiktive Einflüsse der wahrgenommenen Fähigkeit zur Emotionsregulation auf den NSSV Schweregrad und einzelne Facetten des Schweregrades (Anzahl Methoden, intrapersonelle Funktion) gezeigt werden. Des Weiteren waren die Zusammenhänge zwischen der wahrgenommenen Fähigkeit zur Emotionsregulation und der Suizidalität sowie Suiziddrohungen signifikant. Ein Moderator effekt von NSSV auf den Zusammenhang zwischen Emotionsregulationsdefiziten und der Schwere von Suizidgedanken konnte gezeigt werden sowie ein Mediatoreffekt des NSSV Schweregrades auf den Zusammenhang zwischen wahrgenommener Fähigkeit zur Emotionsregulation und der Suizidalität.

Die Ergebnisse dieser Studie verweisen auf die Wichtigkeit einer dimensional Erfassung des NSSV Schweregrades hin und bestätigen die Relevanz kognitiver Prozesse (d.h. wahrgenommene Fähigkeit) der Emotionsregulation in der Therapie und Prävention von NSSV und Suizidalität. Weitere diagnostische Merkmale werden gemäß dem Leitlinien für NSSV vorgestellt.



## **Evidenzbasierte Therapie von Nicht-suizidalem Selbstverletzenden Verhalten im Jugendalter**

**Paul Plener, Medizinische Universität Wien, Österreich**

Nicht-suizidales Selbstverletzendes Verhalten (NSSV) kann als Symptom im Rahmen verschiedener psychischer Erkrankungen auftreten. Auch wenn NSSV im ICD-10 und ICD-11 kein eigenständiges Störungsbild darstellt, so gibt es mittlerweile auch für das Jugendalter einige Therapieverfahren, die eine Wirksamkeit in der Reduktion der Frequenz von NSSV zeigen konnten. Zu den erwähnten Verfahren sind die Dialektisch-Behaviorale Therapie für Adoleszente (DBT-A), die Mentalisierungsbasierte Therapie für Adoleszente (MBT-.A) sowie die kognitive Verhaltenstherapie (KVT) zu zählen. Der Vortrag stellt einen Überblick über die Therapieforschung zu NSSV und selbstschädigendem Verhalten auch unter Bezugnahme auf rezente Meta-analysen und Leitlinienempfehlungen dar.

## **Entwicklung und Evaluation einer Online-Intervention für Nicht-Suizidales Selbstverletzendes Verhalten in der Adoleszenz – Eine randomisiert-kontrollierte Studie**

**Alexandra Edinger, Universität Heidelberg, Germany**

**Julian Koenig, Stephanie Bauer, Sabine Herpertz & Michael Kaess, Universitätsklinik Heidelberg, Deutschland**

Hintergrund: Nichtsuizidales selbstverletzendes Verhalten (NSSV) stellt ein klinisch bedeutsames Phänomen dar und betrifft etwa 18% der Jugendlichen und jungen Erwachsenen weltweit. Die Relevanz des NSSV wird durch seine Assoziation zu einem weiten Spektrum an psychischen Störungen unterstrichen. Dennoch gibt es kaum evidenzbasierte, spezifische, zeit- und kostensparende Behandlungsansätze. Die kognitive Verhaltenstherapie erweist sich hinsichtlich der Reduktion des NSSV als wirksam. Betroffene zeigen jedoch häufig ein gering ausgeprägtes Hilfesuchverhalten und die Verfügbarkeit effektiver Behandlungen ist in weiten Teilen Deutschlands limitiert. Bisherige Forschung zeigt, dass ein Großteil der Jugendlichen mit riskanten Verhaltensweisen (inklusive NSSV) technikbasierte Interventionen präferiert. Bis heute existieren allerdings keine effektiven Interventionen, die online verfügbar sind.

Methodik: Das hier vorliegende Projekt befasst sich mit der Entwicklung und Evaluation einer Online-Intervention für Jugendliche und junge Erwachsene mit NSSV. Die Inhalte basieren auf einer kürzlich evaluierten Kurzzeittherapie, welche Elemente der kognitiven Verhaltenstherapie und der dialektisch-behavioralen Therapie vereint – das Cutting Down Programm (CDP). Die Wirksamkeit der neuen Online-Intervention wird im Rahmen einer randomisiert-kontrollierten Studie (RCT) überprüft. Hierbei erhalten N = 700 Jugendliche, die repetitives NSSV zeigen (mind. an 5 Tagen im vergangenen Jahr) und sich aktuell nicht in psychotherapeutischer oder teil- bzw. vollstationärer Behandlung befinden, entweder eine Online-Psychoedukation (N = 350) mit ausführlichen Informationen rund um NSSV oder zusätzlich die Online-Intervention (N = 350) mit Übungen, Videos und der Möglichkeit, Einzel- und Gruppenchats mit Studententherapeutinnen wahrzunehmen. Im Rahmen verschiedener Nachuntersuchungen [vier Monate nach Baseline (T1), sowie 12 (T2) und 18 Monate (T3) nach Baseline (T0)] werden NSSV, komorbide Symptomatik sowie Lebensqualität erfasst. Es wird angenommen, dass Probanden der Online-Intervention eine größere Reduktion in der Frequenz des NSSV innerhalb der letzten drei Monate zu T2 (primärer Endpunkt) im Vergleich zu Probanden der Online-Psychoedukation berichten.

Diskussion: Sollte sich die neu entwickelte Online-Intervention für NSSV im Jugend- und jungen Erwachsenenalter als wirksam erweisen, könnte sie maßgeblich dazu beitragen, bestehende Hürden hinsichtlich des Behandlungszugangs zu überwinden.

## **Traumatherapie bei adoleszenten Posttraumatische Belastungsstörungen-Patienten mit komorbider emotional-instabiler Persönlichkeitsstörung**

**Sven Cornelisse, Zentralinstitut für seelische Gesundheit Mannheim, Deutschland**

Vor dem Hintergrund einer Lebenszeitprävalenz einer posttraumatischen Belastungsstörung (PTBS) von ca. 10% bei Frauen sowie ca. 3% bei Männern in der Adoleszenz (Kessler et al., 1995) sowie einem Chronifizierungsrisiko bei anfänglich schwerer Symptomatik (Ehlers et al., 1998), ist davon auszugehen, dass adoleszente Patienten, die zusätzlich unter einer emotional-instabilen Persönlichkeitsstörung (BPS) leiden, vor besonderen Herausforderungen in der Traumatherapie stehen. So konnte bereits gezeigt werden, dass BPS-Patienten ein erhöhtes Risiko wiederholter und chronischer Traumatisierungen besitzen (Westen et al., 1990), was Einfluss auf die Schwere der Störung der Emotionsregulation, der Dissoziationsneigung sowie Suizidneigung nehmen könnte. Weiterhin berichten adoleszente Betroffene im klinischen Alltag häufig große Probleme Vertrauen zum Therapeuten aufzubauen und ein gewisses Maß an Unoffenheit aufzugeben. Dabei stehen diese Patienten vor großen Herausforderungen in fast allen Lebensbereichen (v.a. Schule, Freundschaft & Familie), weshalb die Wahl der Therapiefokali zusätzlich erschwert wird, wenn ein geringes Niveau an sozial kooperativem Verhalten vorhanden ist. Auch wiederkehrende schwere impulsive Verhaltensweisen und riskantes Verhalten kann dazu führen, dass eine störungsspezifische PTBS-Behandlung ausbleibt, was wiederum den Langzeitverlauf negativ beeinflussen kann und das Hospitalisierungsrisiko begünstigt. Bohus et al. (2013) konnten zeigen, dass es möglich ist, dieser Gruppe von erwachsenen Patienten eine wirksame störungsspezifische Behandlung anzubieten, weshalb im Adoleszentenzentrum dem ZI-Mannheim seit 2016 eine entsprechende Adaption für adoleszente Patienten angeboten und evaluiert wird. Ziel des Beitrags soll es daher sein, die entsprechenden Behandlungsphasen und deren Spezifika vorzustellen und erste Daten der Evaluation zu präsentieren. Dabei sollen v.a. auf die Besonderheiten und Herausforderungen der Traumatherapie adoleszenter BPS-Patienten dargelegt und diskutiert werden.

## **Vom Labor in den Therapieraum: Neue Erkenntnisse aus der Kinderangstforschung vom Vorschul- bis zum Jugendalter**

**Convenor: Michael W. Lippert, Ruhr-Universität Bochum, Deutschland**

### **Ängste bei Kindern im Vorschulalter**

**Nina Heinrichs, Universität Bremen, Deutschland**

**Lorena Lüning & Daniela Ehrenberg, Universität Braunschweig, Deutschland**

Ängste spielen bei Kindern und Jugendlichen eine zentrale Rolle: sie sind relativ häufig und können sich bei einem bedeutsamen Anteil zu manifesten klinisch relevanten Störungen entwickeln. Klasen und Kollegen (2016) berichten, dass bei knapp 11% aller Kinder und Jugendlichen (Altersbereich 7 Jahre bis 19 Jahre) Ängste in einem klinischen Ausmaß vorhanden sind. Deutlich weniger Wissen gibt es über Ängste und ihre Ausprägung im Vorschulalter. Gleichwohl die Annahme besteht, dass Ängste auch schon sehr viel früher als mit sieben Jahren auftreten (z.B. Egger & Angold, 2006), gibt es nur wenige Instrumente um diese ontogenetisch frühen Ängste zu erfassen und diese sind – auch entwicklungsbedingt – eher auf unspezifische Angstempfindungen als auf die differenzierte Erfassung von Angstkategorien gemäß der gängigen Klassifikationssysteme ausgelegt. Aus diesem Grund haben wir die Spence Children Anxiety Scale (SCAS), die es auch in einer Version für das Vorschulalter gibt (PAS; ausgefüllt durch ein Elternteil), in die deutsche Sprache übersetzt und in zwei Studien

eingesetzt: (1) eine Studie mit ca. 350 Kindern im Alter zwischen 2 und 6 Jahren, die einen der teilnehmenden Kindergarten besuchten und (2) eine Studie mit Pflegekindern und Kindern in ihren Herkunftsfamilien im Alter von 2 bis 7 Jahren. Ziel dieser Präsentation ist (a) zum einen darzustellen, welche Ängste Kinder im Vorschulalter aus Sicht ihrer Eltern haben, (b) wie diese Ausprägungen bei Kindern, die in Deutschland leben, in Verhältnis gesetzt werden zu Kindern, die in anderen Ländern leben und (c) zu prüfen, ob Kinder, die aufgrund von kindeswohlgefährdenden Umständen aus ihren Herkunftsfamilien genommen wurden, mit vermehrten Ängsten reagieren und zu explorieren, ob es bestimmte Angstbereiche gibt, die in besonderer Weise auf diese Erfahrungen „anschlagen“.

### **Emotionale Reaktivität und maladaptive Emotionsregulation: Transdiagnostische und störungstypische Befunde bei Kindern mit Angststörungen**

**Brunna Tuschen-Caffier, Verena Keil, Sophie Staltmeir & Nana Sepehran, Albert-Ludwigs-Universität Freiburg, Deutschland**

**Julian Schmitz, Universität Leipzig, Deutschland**

In Modellen zur Aufrechterhaltung von Angststörungen wird davon ausgegangen, dass eine erhöhte Reaktivität auf Angstreize sowie maladaptive Emotionsregulation dazu beitragen, dass sich die Angstsymptomatik verfestigt. Bisher gibt es allerdings nur wenige Studien, die Kinder mit verschiedenen Angstdiagnosen dahingehend vergleichen, ob die Auffälligkeiten störungstypisch oder transdiagnostisch relevant sind. Wir sind daher in zwei Studien dieser Fragestellung nachgegangen, indem die emotionale Reaktivität und Emotionsregulation anhand von Befragungen in der natürlichen Umgebung von Kindern mit verschiedenen Angstdiagnosen untersucht wurde. In der ersten Studie stand die soziale Angststörung (SAD) im Zentrum des Forschungsinteresses; es wurden die emotionale Reaktivität sowie adaptive (kognitive Neubewertung) und maladaptive Emotionsregulation (Unterdrückung des emotionalen Ausdrucks; Grübeln) in einer Stichprobe von 10 bis 13 Jahre alten Kindern mit der Diagnose einer SAD (n=29), einer klinischen Vergleichsgruppe von Kindern mit verschiedenen Angststörungen (n=27) und Kindern ohne Diagnose einer psychischen Störung (n=31) anhand der Methode des ecological momentary assessments untersucht. Alle Kinder wurden an drei Wochentagen jeweils zweimal telefonisch kontaktiert und interviewt. Es zeigten sich störungstypische (z.B. höhere emotionale Reaktivität auf soziale Situationen bei Kindern mit SAD), aber auch transdiagnostische Befunde. In einer laufenden Studie werden als weitere klinische Vergleichsgruppe auch Kinder einbezogen, die eine Symptomatik im Bereich der externalisierenden Störungen aufweisen. Die Befunde werden einen Beitrag zur Klärung der Rolle von emotionaler Reaktivität und Emotionsregulation für die Aufrechterhaltung verschiedener Angststörungen und Störungen mit externalisierender Symptomatik im Kindesalter haben.

### **Blickverhalten von Kindern mit Angststörungen auf störungsspezifisches Stimulusmaterial: Eine Eyetracker Studie**

**Verena Pflug & Silvia Schneider, Ruhr-Universität Bochum, Deutschland**

Wahrnehmungs- und Aufmerksamkeitsprozesse spielen eine wichtige Rolle bei der Entstehung und Aufrechterhaltung von Angststörungen (vgl. Hadwin & Field, 2010). Das Vigilanz-Vermeidungs-Modell (Mogg and Bradley, 1998) geht davon aus, dass sich ängstliche Personen zuerst dem angstauslösenden Stimulus zuwenden, diesen dann aber versuchen zu vermeiden, indem sie die Aufmerksamkeit vom angstauslösenden Stimulus weglenken. Durch die kontinuierliche und dynamische Erfassung der Aufmerksamkeit mittels eyetracking kann das Blickverhalten von Kindern und Jugendlichen gezielt untersucht werden. Im Kindesalter gibt es bislang wenige empirische Untersuchungen zum Hypervigilanz-Vermeidungs-Modell. Jedoch konnte in ersten Studien bei Kindern mit einer Störung mit Trennungsangst dieses Blickverhalten festgestellt werden (In-Albon, Kossowsky & Schneider, 2010; In-Albon & Schneider, 2012). Ziel dieser Studie ist es, sowohl die Ergebnisse mit trennungsängstlichen Kindern zu replizieren als auch zu überprüfen, ob das Hypervigilanz-Vermeidungs-Muster auch bei einer anderen klinischen Stichprobe, Kindern mit sozialer Phobie, gefunden werden kann. 6 bis 18-jährigen Kindern und Jugendlichen mit einer sozialen Phobie (n=27), einer Störung mit Trennungsangst (n=23) sowie einer gesunden Kontrollgruppe (n= 24) wurden stimuluspezifische Bildpaare am PC dargeboten. Jedes Bildpaar bestand entweder aus einer Trennungs- und einer Zusammenkunftssituation von Eltern und Kindern oder aus zwei sozialen Situationen, bei denen Kinder in einem Bild Anerkennung, im anderen Bild Ablehnung durch Gleichaltrige erfahren. Vor der Präsentation eines jeden Bildpaares erschien ein Fixationskreuz in der Mitte des Bildschirms. Die Stimuli wurden in randomisierter Reihenfolge und ausgeglichener Position für eine Zeitdauer von 4800 ms gezeigt. Mittels eyetracking wurde das Blickverhalten aufgezeichnet und ein Bias-Wert für jeden 600ms Abschnitt ausgewertet. Der Bias-Wert gibt an, in welchem Ausmaß das Kind seine Aufmerksamkeit auf die beiden Bilder relativ zueinander gerichtet hat. Erste Ergebnisse werden vorgestellt und diskutiert.

### **Effekte der wahrgenommenen Selbstwirksamkeit auf die Extinktion von Furcht im Kindesalter**

**Katharina Sommer, Michael W. Lippert, Armin Zlomuzica, Friederike Raeder, Dirk Adolph, Jürgen Margraf & Silvia Schneider, Ruhr-Universität Bochum, Deutschland**

Die Einschätzung, inwiefern man selbst in der Lage ist, schwierige Situationen zu meistern – die Selbstwirksamkeitserwartung – hat einen entscheidenden Einfluss darauf, ob und wie wir herausfordernden Ereignissen begegnen. Obwohl sie auch in der Therapie von Angststörungen eine entscheidende Rolle spielt, existiert vor allem im Kinder- und Jugendbereich nur wenig experimentelle Forschung. Eine erste RCT im Erwachsenenbereich zeigte, dass eine experimentell erhöhte Selbstwirksamkeitserwartung das Extinktionslernen - als stellvertretenden Mechanismus der Exposition - fördert (Zlomuzica et al., 2015). In Anlehnung daran untersucht diese Studie den Einfluss des Selbstwirksamkeitserlebens auf die Extinktion von Furcht bei gesunden Schulkindern.

Im Rahmen des Forschungsvorhabens durchlaufen 40 deutsche Schulkinder im Alter von 8 bis 12 Jahren ein differentielles Furchtkonditionierungsparadigma. Das Selbstwirksamkeitserleben wird in den Versuchsgruppen durch ein positives, verbales Feedback zu verschiedenen Zeitpunkten im Paradigma manipuliert und mit einer Kontrollgruppe ohne Feedback verglichen. Die Furchtreaktionen werden während des Experimentes über implizite Maße (Startle Response, EDA) sowie explizite Maße (CS Valenz- & Arousal Ratings, CS-UCS Kontingenzzrating) erfasst.

Eine erste Pilotstudie mit 15 Kindern bestätigt die Eignung des Paradigmas für die vorgesehene Altersgruppe sowie die Umsetzbarkeit der Selbstwirksamkeits-Manipulation. Ergebnisse der Hauptstudie sollen im Poster präsentiert werden.

Eine Replikation der Ergebnisse im Kindesalter würde die Notwendigkeit eines systematischeren Einsatzes von Selbstwirksamkeitselementen in bestehenden Therapieprogrammen implizieren, um den Erfolg von Therapien weiter zu verbessern.

## **Die Rolle von Selbstwirksamkeit in der Behandlung der Störung mit Trennungsangst**

**Tina In-Albon, Universität Koblenz-Landau, Deutschland**

**Silvia Schneider, Ruhr-Universität Bochum, Deutschland**

Theoretischer Hintergrund: Ziel dieser Untersuchung war es den Einfluss der Selbstwirksamkeitserwartung als Prädiktor und Mediator auf den Therapieerfolg der Störung mit Trennungsangst zu untersuchen. Die Stichprobe stammt aus einer randomisierten Kontrollstudie zur Wirksamkeit des Trennungsangstprogramms für Familien (TAFf).

Methode: Dreiundfünfzig Kinder (8 bis 13 Jahre) beantworteten Fragebögen bei einer Baseline- und Follow-Up-Erhebung zu ihrer allgemeinen Selbstwirksamkeitserwartung, dem Vermeidungsverhalten und Angstsymptomen. Die Kinder gehörten zu zwei Therapiebedingungen oder einer gesunden Kontrollgruppe.

Ergebnisse: Kinder mit Trennungsangst haben zur Baseline-Erhebung eine geringere Selbstwirksamkeitserwartung als gesunde Kinder ( $d = 1.07$ ), diese lässt sich durch eine kognitive Verhaltenstherapie steigern ( $d = .69$ ). Die Veränderung in der Selbstwirksamkeitserwartung beeinflusst als Prädiktor und partieller Mediator die Reduktion von Trennungsangstsymptomen, jedoch nicht eine Reduktion des Vermeidungsverhaltens.

Diskussion: Die Ergebnisse deuten an, dass sich durch eine kognitive Verhaltenstherapie die Selbstwirksamkeitserwartung bei Kindern mit Trennungsangst steigern lässt und dass der Zuwachs an Selbstwirksamkeit die Angstreduktion beeinflusst. Zukünftige Forschung sollte den Einfluss der Selbstwirksamkeitserwartung auf Vermeidungsverhalten als ein Symptom von Angststörungen untersuchen.

## **Digitale Werkzeuge und computergestützte Technologien zur Prävention und Behandlung psychischer Störungen**

**Convenor: Stefan Lüttke, Universität Tübingen, Deutschland**

### **Randomisiert-kontrollierte Studie zur Cognitive Bias Modification bei suchterkrankten Jugendlichen mit Schwerpunkt Cannabisabhängigkeit (UnDope)**

**Tanja Legenbauer, Martin Holtmann, Andrea Wolf, Reinold Wiers & Natalie Deux, Universitätsklinik Hamm, Deutschland**

Cannabismisbrauch ist der häufigste suchtspezifische Behandlungsgrund in der Kinder- und Jugendpsychiatrie. Hohe Rückfallquoten und chronifizierende Verläufe mit schweren sozialen Funktionseinschränkungen sind häufig. Dringend notwendig sind daher Interventionen, die die Rückfallgefahr nach Entzug/Behandlung senken. Erste Studien aus der Alkoholforschung zeigen, dass computergestützte Verfahren die das Prinzip der Cognitive Bias Modification (CBM) nutzen, hilfreich sein könnten. Dabei wird Annäherungsverhalten hinsichtlich des Suchtstoffes gezielt abgebaut.

Ziel der vorliegenden Studie ist es die Effekte eines Cannabis Approach-Avoidance-Trainings (CAAT) zur Veränderung von Annäherungstendenz bei Jugendlichen mit Cannabis-abhängigkeit zu untersuchen. Mit einem randomisiert kontrollierten Studiendesign soll die Wirksamkeit eines computergestützten und App- gestützten CAAT zur Modifikation der Aufmerksamkeitslenkung auf substanzbezogene Reize bei Patienten mit Cannabisabhängigkeit im Vergleich zu einem Placebotraining evaluiert werden. Das Training wird bei jugendlichen Patienten mit Cannabisabhängigkeit eingesetzt, die sich in einer Cannabisentzugsbehandlung in den Kinder- und Jugendpsychiatrien Hamm befinden. Die Jugendlichen sind im Alter von 14 bis 18 Jahren. Neben einer Basismessung (Fragebögen + AAT), werden 8 Trainingssitzungen mit 400 Bildern (ca. 10-15 Minuten) sowie eine Postmessung (Fragebögen + AAT) und Follow-up nach 6 Monaten (Fragebögen, AAT) durchgeführt. Das Projekt läuft seit April 2018, bis lang konnten 56 Patienten von 144 Patienten eingeschlossen werden. Es wird zudem im Rahmen einer Masterarbeit eine gesunde Kontrollgruppe rekrutiert. Auf der Konferenz werden zum einen ein Vergleich auf Basis der Baseline Daten von gesunden Jugendlichen und Patienten der Klinik hinsichtlich Approach Avoidance bezogen auf Cannabisbezogene Stimuli und der Einfluss von Sensation seeking auf das Approach and Avoidance Verhalten vorgestellt, zum anderen ein Ausblick auf feasibility und Effektivität des app-basierten Trainings gegeben.

### **Emotionale Kompetenz bei Jugendlichen und jungen Erwachsenen – ein app-basierter, personalisierter Ansatz zur Prävention psychischer Störungen und Verbesserung des allgemeinen Wohlbefindens**

**Johanna Löchner & Thomas Ehring, Ludwig-Maximilians-Universität München, Deutschland**

Psychische Störungen in der Transitionsphase von Jugend zu Erwachsenenalter können erhebliche Weichenstellung für die weitere, soziale, berufliche und gesundheitliche Entwicklung junger Menschen darstellen. Trotz steigender Prävalenzraten psychischer Störungen bei Jugendlichen und jungen Erwachsenen, fehlen wirksame und breit zugängliche Präventionsangebote. Im ECoWeB-Projekt wird in einem internationalen und multidisziplinärem Team aus Ländern der EU derzeit auf Basis des Emotional Component Process Models eine personalisierte App (EC-APP) zur Prävention von psychischen Störungen und Verbesserung des allgemeinen Wohlbefindens für Jugendliche und junge Erwachsene entwickelt. Darüber hinaus wird mittels eines eigens hierfür entwickelten Assessments, ein individualisiertes Risikoprofil emotionaler Kompetenzen (EC) erstellt. Die Wirksamkeit der EC-App wird im Rahmen zweier longitudinaler, multiple-cohort randomised control Trials an vier Standorten der EU untersucht: 1) Prävention psychischer Störungen (ECoWeB-PREVENT) und 2) Verbesserung der allgemeinen Gesundheit (ECoWeB- PROMOTE).

Methode: N=2400 16-22 Jährige aus England, Belgien, Deutschland und Spanien durchlaufen ein Online-Assessment zur i) Screening der Einschlusskriterien (Keine depressive Störung, psychotische Symptome, Suizidalität), ii) Erstellung des EC-Risikoprofils und iii) Messung der Haupt-Outcome-Variablen (allgemeine Psychopathologie; psychische Gesundheit). Je nach Risikoprofil, werden die Probanden zugeteilt zu ECoWeB-PREVENT (Defizite in EC) oder ECoWeB-PROMOTE (Keine Defizite der EC). Je Trial erfolgt die Randomisierung in 1) EC-App, 2) CBT-Kontroll-App und 3) Self-Monitoring-App. Die EC-App wird dabei spezifisch auf das entsprechende Risikoprofil individualisiert angepasst. Nach 1, 3 und 12 Monaten erfolgen Follow-up Messungen auf der Studienwebseite.

Ergebnisse: Derzeit ist das Projekt in der Entwicklungsphase. Wir erwarten reduzierte psychopathologische Symptome und eine verbesserte allgemeine psychische Gesundheit in der EC-APP als auch CBT-App-Kontroll-bedingung gegenüber der reinen Monitoring-App-Kontrollgruppe in allen drei Follow-up Zeitpunkten. Im Vortrag wird das Studiendesign als auch die innovativen Methoden der Intervention vorgestellt.

Diskussion. Trotz vieler Versuche, universelle, primärpräventive Interventionen zur Reduktion psychischer Erkrankungen zu entwickeln, bleibt unklar, wie psychische Störungen längerfristig verhindert werden können. Das ECoWeB-Projekt verspricht durch seinen digitalen, innovativen und personalisierten Ansatz den Bedürfnissen Jugendlicher und junger Erwachsener zu begegnen und so für Risiko- als auch nicht-Risikogruppen das psychische Wohlbefinden effektiv zu verbessern.

## **Prävention von Depressionen in der orthopädischen Nachsorge: Finale Ergebnisse der bundesweiten PROD-BP-Studie** **Lasse Sander & Kerstin Spanhel, Universität Freiburg, Deutschland**

**David Ebert, Universität Erlangen-Nürnberg, Deutschland**

**Harald Baumeister, Universität Ulm, Deutschland**

Hintergrund: Chronische Rückenschmerzen zählen zu den häufigsten Erkrankungen weltweit und führen zu einer zwei- bis dreifachen Erhöhung des Risikos für eine Depression. Methode: Ziel dieser pragmatischen, multizentrischen und randomisiert-kontrollierten Studie (RCT) mit parallelem Design war die Untersuchung der Effektivität einer Internet- und mobil-basierten Intervention (IMI) zur Prävention von Depressionen bei Patienten mit chronischen Rückenschmerzen und subklinischen depressiven Symptomen (PHQ-9  $\geq 5$ ). Es wurden 295 Patienten ohne klinische Depression zur Baseline (SKID-V) am Ende ihrer Reha-Behandlung an deutschlandweit 82 orthopädischen Rehakliniken rekrutiert. Die Interventionsgruppe (IG) und die Kontrollgruppe (KG) hatten vollen Zugriff auf die Standardbehandlungsmaßnahmen (TAU). Teilnehmer in der IG erhielten zusätzlich eine IMI zur Prävention von Depression. Dabei wurden zwei Implementierungsstrategien (persönliche vs. schriftliche Rekrutierung) angewandt. Ergebnisse: Es konnte eine Stichprobe mit einem durchschnittlichen Alter von 53 (SA: 7,7) Jahren, einem verhältnismäßig geringen Bildungsniveau und einem Männeranteil von annähernd 40% rekrutiert werden. Sekundäre Ergebnismaße zeigen in der IG verglichen mit der KG eine signifikant höhere Abnahme depressiver Symptome (PHQ-9) im Follow-Up nach neun Wochen ( $d = 0.39$  95%CI: 0.16 – 0.62) und sechs Monaten ( $d = 0.31$  95%CI: 0.04 – 0.58). Zudem zeigte die IG im Vergleich zur KG signifikante Verbesserungen in der Lebensqualität, der schmerzbezogenen Beeinträchtigung, Selbstwirksamkeitserwartung und der wahrgenommenen Schmerzintensität. Diskussion: Die Einbettung in die orthopädische Nachsorge zeigte Ergebnisse mit hoher externer Validität. Die 1-Jahres Follow-Up Effekte auf die Inzidenz von Depression (SKID-V) werden auf dem WCBCT vorgestellt.

## **Expositionstherapie in virtueller Realität bei Angststörungen**

**Julia Diemer, kbo-Inn-Salzach-Klinikum und Ludwig-Maximilians-Universität München, Deutschland**

Hintergrund: Virtuelle Realität (VR) bezeichnet immersive und interaktive Computersimulationen, die beim Nutzer eine Illusion von "Präsenz" erzeugen. Dieses neue Medium ermöglicht Klinikern und Forschern die kontrollierte Darbietung von komplexen, emotional bedeutsamen Szenarien. Innerhalb der Verhaltenstherapie wird VR insbesondere als eine Form der Expositionstherapie für Angst- und stressbedingte Störungen untersucht. Nach 20 Jahren Forschung zu VR-Expositionstherapie (VRET) berichten aktuelle Reviews und Meta-Analysen überzeugende Wirksamkeitsbelege mit großen Effektstärken für VRET (Carl et al., 2018; Opris et al., 2012). Darüber hinaus scheinen die Effekte einer VRET gut auf Verhaltenstests in vivo zu generalisieren (Morina et al., 2015). Für die Forschung ist VR besonders interessant, da diese Technik komplexe und dennoch hoch kontrollierte Versuchsaufbauten im Labor ermöglicht. Die VR-Technik hat sich in den letzten Jahren immer schneller entwickelt, bei gleichzeitiger Kostenreduktion; dies hat wiederum die VR-Forschung in vielen Feldern vorangetrieben.

Methode: Im Mittelpunkt dieses Vortrags stehen der empirische Stand von VRET, sowie die aktuellen Entwicklungen in diesem Bereich. Daten aus einigen unserer eigenen Projekte zu den subjektiven und psychophysiologischen Prozessen während VR-Exposition werden ebenfalls gezeigt.

Ergebnisse: Während frühe Studien zu VRET oft auf Spezifische Phobien beschränkt waren, stehen in aktuelleren Studien auch komplexe Angststörungen im Fokus. Das Potenzial von VR zur Simulation sozialer Interaktionen wird zunehmend erkannt, was neue Ansätze in der Verhaltenstherapie ermöglichen könnte. Die VR-Forschung liefert zudem wichtige Erkenntnisse zu den emotionalen Prozessen während VRET und entwickelt neue experimentelle VR-Paradigmen.

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## **What's up? Ein automatisiertes, Smartphone basiertes Frühwarnsystem für Kinder und Jugendliche mit Depressionen**

**Stefan Lüttke, Universität Tübingen, Deutschland**

Obleich Präventionsprogramme für Jugendliche mit einer Depression verfügbar sind, ist das Rezidivrisiko weiterhin hoch. Das Kernproblem bleibt die Implementierung von Präventionsmaßnahmen. Prävention muss kontinuierlich und im Alltag erfolgen, darf jedoch den Lebensvollzug nicht einschränken und muss einen hohen Aufforderungscharakter haben. Eine Lösung stellt ein automatisiertes Frühwarn- und Interventionssystem dar, welches die Möglichkeiten der Künstlichen Intelligenz nutzt.

Das multinationale What's up?-Projekt hat zum Ziel, ein automatisiertes Frühwarn- und Interventionssystem für Kinder und Jugendliche mit einem hohen Rezidivrisiko zu entwickeln. Dieses basiert auf objektiven Depressionsmarkern, die sich im Alltag mit Smartphone und Wearable erheben lassen. In einem ersten Schritt werden objektive Depressionsmarker exploriert, die sich im Alltag automatisch erheben lassen. Hierzu zählen u.a. sprachliche Merkmale in dyadischen WhatsApp-Chats (z.B. 1.Person Singular Pronomina, absolutistische Wörter), Qualität und Quantität der Smartphone-Nutzung (z.B. Nutzungszeiten) und der Bewegungsradius (operationalisiert über GPS). Die Stichprobe der ersten Pilotstudie umfasst N = 60 Jugendliche im Alter 13-17.

Die Auswertung der sprachlichen Merkmale in WhatsApp-Chats zeigt einen signifikanten positiven Zusammenhang zwischen dem Ausmaß der Depressivität (gemessen mit der Allgemeinen Depressionsskala) und der Verwendung von Worten, die Negation (z.B. niemals) und Absolutheit (z.B. alles) ausdrücken.

## **When the Going Gets Tough: Schematherapie bei Paaren mit Persönlichkeitsstörungen**

**Convenor: Eckhard Roediger, Institut für Schematherapie-Frankfurt, Deutschland**

### **Das Schematherapie-Paarmodell: Settingbedingungen, Module und Fallkonzeption**

**Matias Valente, Institut für Schematherapie-Stuttgart, Deutschland**

Wie in der Schematherapie im Allgemeinen übernehmen die Therapeuten auch in der Arbeit mit Paaren eine sehr aktive, strukturierende Rolle. Auf Basis eines vereinfachten, interaktionell erweiterten Modusmodells erfolgt eine einführende Psychoedukation. Dabei wird die Ebene des sichtbaren Verhaltens (Bewältigungsmodi) von der Ebene der im Hintergrund wirkenden emotionalen Motive unterschieden. Ziel

ist, beide Partner mit den beiden fundamentalen Bedürfnissen Bindung und Selbstbehauptung in Kontakt zu bringen. Dann lernen die Partner schrittweise, dysfunktionale Moduszirkel zu erkennen, zu unterbrechen, sich innerlich auszubalancieren und wieder funktional aufeinander zuzugehen. Wenn die Interaktion zu stark von Schemaaktivierungen überlagert wird, können diese in Absprache ggf. mit beiden Partnern getrennt in Einzelsitzungen bearbeitet werden. Die dabei zu beachtenden Besonderheiten werden dargestellt.

#### **„Lassen Sie uns das einmal auseinandersetzen!“ Stuhldialoge zur motivationalen Klärung**

**Eckhard Roedinger, Institut für Schematherapie Frankfurt, Deutschland**

In Konflikten dominiert das Selbstbehauptungs- oder Selbstschutzbedürfnis über das Bindungsbedürfnis. Zu dominante Partner müssen wieder mit ihrer verletzbaren, bindungsbereiten Seite in Kontakt kommen, ängstlich-vermeidende Partner brauchen Ermutigung und Zugang zu ihrer „konstruktiven Ärgerkraft“. In Modusdialogen auf mehreren Stühlen können die emotionale Ebene hinter dem maladaptiven Bewältigungsverhalten sowie die beiden emotionalen Motive nebeneinander sichtbar gemacht und ausbalanciertes, funktionales Verhalten eingeübt werden, so dass eine Annäherung auf Augenhöhe möglich wird.

#### **Das Feuer wieder anfachen: Gemeinsame Imaginationsübungen mit Paaren**

**Eva Frank-Noyon, Psychotherapeutische Praxis in Frankfurt, Deutschland**

Eine Verbesserung des Interaktionsverhaltens des Paares reicht oft nicht aus, um eine Wiederanknüpfung auf emotionaler Ebene zu bewirken. In gemeinsamen imaginativen Übungen können sich die Partner hingegen wieder als zugewandt und unterstützend erleben, was auf einer tieferen Ebene den Wunsch nach einer Annäherung verstärken kann. Die Übungen können positive gemeinsame Erlebnisse in der Vergangenheit wieder ins heutige Erleben bringen, den zuvor aktivierten verletzbaren Teil eines Partners versorgen, oder positive Erlebnisse in der Zukunft antizipieren – aber immer auf einer emotional aktivierten Ebene, die dann kognitiv weiter verarbeitet werden kann.

#### **Imagination wirkt! Ergebnisse einer randomisiert-kontrollierten Paarstudie**

**Julia Hinrichs, Psychotherapeutische Praxis in Frankfurt, Germany**

**Eckhard Roedinger, Institut für Schematherapie Frankfurt, Deutschland**

In einer randomisierten, kontrollierten Studie mit 12 Paaren wurden entweder für beide Partner erst kognitive und dann imaginative Interventionen angeboten oder umgekehrt. In beiden Gruppen führten die imaginativen Interventionen sowohl zu einer signifikant stärkeren emotionalen Annäherung als auch Minderung des BDI als die kognitiven Interventionen. Interessanter Weise führte die Verbindung des kognitiven Verständnisses mit dem emotionalen Erleben in den Imaginationen in der Abschlusssitzung in beiden Gruppen zu einer deutlichen Verstärkung der positiven Effekte, die bis zur Nachuntersuchung weiter zunahmen. Die Methodik und die Ergebnisse der Studie werden vorgestellt.

#### **Neuro<>Psychotherapie – Gemeinsam oder lieber jeder für sich?!**

**Convenor: Nina Romanczuk-Seiferth, Charité Universitätsmedizin Berlin, Deutschland**

#### **Neuro<>Psychotherapie – Aufstieg und Fall der Biologischen Psychiatrie. Eine Zustandsanalyse**

**Felix Hasler, Humboldt-Universität Berlin, Deutschland**

Die Hoffnungen, dass Fortschritte in den Neurowissenschaften schon bald zu einer wesentlichen Verbesserung der Therapie psychischer Störungen führen wird, haben sich nicht erfüllt. Auch wenn die Biologische Psychiatrie noch immer die Deutungshoheit über psychische Erkrankungen beansprucht: Trotz Multimilliarden-Investitionen und einer Vielzahl an Genetik- und Bildgebungs-Studien gibt es bis heute keine belastbaren pathophysiologischen Konzepte zur Biologie psychischer Störungen. Die Pharmaindustrie zieht sich zurück, weil hypothesen-basiertes rational drug design in der Psychopharmaka-Entwicklung nicht erfolgreich ist. Die Psychopharmakologie befindet sich in einer Krise und die akademische Psychiatrie in einem Zustand der Stagnation. Die Anzeichen mehren sich, dass die Rolle der Psychiatrie innerhalb des Gesundheitssystems neu verhandelt werden muss und bedeutende Veränderungen bevorstehen. Alternativen zur gegenwärtigen medikamentenzentrierten Therapie werden diskutiert. Die Psychiatrie der Zukunft könnte auch viel mehr digital als neurologisch sein: Telepsychiatrie, interaktive Videokonferenzen und Mental Health Apps haben die Versorgung psychisch kranker Menschen schon jetzt verändert. Wie genau eine Verschiebung von der Neuropsychopharmakologie zur IT-gestützten Psychiatrie-Versorgung aussehen könnte, soll ausgearbeitet werden. Was sind die praktischen Konsequenzen und ethischen Herausforderungen eines digital phenotyping durch Smartphone-monitoring, wie dies beispielsweise die Firma mindstrong des früheren NIMH-Direktors Thomas Insel entwickelt? Wie die Psychiatrie der Zukunft aussehen könnte und welche wissenschaftsideologischen Neuerungen den gegenwärtigen Neurozentrismus leise und allmählich ersetzen, soll erörtert werden.

#### **Neuro<>Psychotherapie – Neurofeedback mit Echtzeit-Bildgebung als psychotherapeutische Methode**

**Annette Brühl, Psychiatrische Universitätsklinik Zürich, Schweiz**

Störungen der Emotionsregulation sind bei verschiedenen psychischen Erkrankungen zu finden. Unabhängig von Fragen der Kausalität der Störung gehen jedoch Verbesserungen der Emotionsregulation und Veränderungen und „Normalisierungen“ der entsprechenden neurofunktionellen Kreisläufe mit einer Verbesserung der Krankheitssymptomatik einher. Neurofunktionell sind in der Emotionsregulation vor allem präfrontale und subkortikale Regionen, insbesondere die Amygdala, involviert.

Neurofeedback ist eine Methode, bei der körpereigene Signale mit Bezug zum Nervensystem als Informationsquelle ausgelesen werden und dann z.B. durch Entspannungsverfahren beeinflusst werden. Bei bestimmten Erkrankungen wie Schmerzstörungen, ADHS und auch in der Rehabilitation von neurologischen Erkrankungen werden Neurofeedbackverfahren bereits klinisch eingesetzt. Es kommt dabei meistens EEG als Datenquelle zum Einsatz.

Funktionelle Magnetresonanztomographie ist ein Ansatz, der zwar im Vergleich zum EEG eine geringere zeitliche Auflösung, aber auch eine bessere räumliche Auflösung und vor allem auch eine bessere Darstellung von tieferen, subkortikalen Hirnregionen ermöglicht. Zudem ist bei funktioneller Magnetresonanztomographie der Zusammenhang zwischen ausgelesenem Signal und dem gerade ablaufenden kognitiven, emotionalen oder Wahrnehmungsprozess grösser und spezifischer als bei den meisten EEG-Messungen. Daher bietet sich die funktionelle Magnetresonanztomographie mit der zunehmenden Verfügbarkeit der Geräte und der deutlich verbesserten Verarbeitungsgeschwindigkeit als eine mögliche neue Methode des Neurofeedbacks an.

Dieser Vortrag stellt eine Übersicht über Neurofeedbackmethoden, aktuelle Befunde und Anwendungsbereiche und auch die psychischen Prozesse und die mögliche Einbettung in eine Psychotherapie dar.

## **Neuro<>Psychotherapie – Endstation Hirn? Konzeptuelle Schwierigkeiten in der Arbeit mit neurobiologischen Störungsbegriffen**

**Thorsten Padberg, Psychologische Praxis in Berlin, Deutschland**

Wenn man die Grammatik des Ausdrucks der Empfindung nach dem Muster von „Gegenstand und Bezeichnung“ konstruiert, dann fällt der Gegenstand als irrelevant aus der Betrachtung heraus.

Ludwig Wittgenstein, Philosophische Untersuchungen, §293

Psychotherapeuten behandeln ein diverses Spektrum an psychischen Störungen, Depressionen, Persönlichkeitsstörungen, Zwängen, Ängsten usw. Gleichzeitig sind diese Störungen schwer zu „fassen“. Seit dem DSM-III behelfen wir uns mit einem symptomorientierten Ansatz.

Psychische Störungen sind das, was ICD und DSM zu psychischen Störungen erklären. Dieser sog. „phänomenologische Ansatz“ ist seit langem für die biologisch orientierte Psychiatrie unbefriedigend. Sie wünscht sich härtere, „echte“ Krankheitsindikatoren, analog zu Bluttests und Laboruntersuchungen wie im Rest der Medizin. Bis heute gibt es diese verlässlichen Indikatoren aber nicht.

Im Vortrag wird aufgezeigt werden, warum es aus konzeptuellen Gründen schwer möglich sein wird, solche Indikatoren zuverlässig zu bestimmen. Psychologische Kategorien verändern sich ständig, sie haben keine festen Referenten. Neuropsychologische Untersuchungen liefern deshalb keine Basis für die Psychotherapie. Sie können die benutzten Konzepte metaphorisch illustrieren. Psychologische Konzepte finden ihre Rolle stattdessen im interpersonellen Austausch. Wir sollten uns nicht zuerst fragen, was (physiologisch) hinter ihnen steckt, sondern wie sie in unserem Miteinander funktionieren.

## **Neuro<>Psychotherapie – Die Implikationen neurobiologischer Erkenntnisse für Emotion und Motivation in der Psychotherapie**

**Nina Romanczuk-Seiferth, Charité – Universitätsmedizin Berlin, Deutschland**

Die gemeinsame Entwicklung und das Zusammenspiel von Neurowissenschaften und Psychotherapie(-forschung) sind auf der einen Seite bereits evident, andererseits ist der Nutzen dieser wechselseitigen Beziehung für den therapeutischen Alltag und damit für die Patientinnen und Patienten umstritten. Der Vortrag wird am Beispiel emotionaler und motivationaler Prozesse aufzeigen, welche Implikationen bisherige neurowissenschaftliche Erkenntnisse für die Anwendung psychotherapeutischer Methoden haben, welche wissenschaftlichen Methoden in diesem Feld dafür nötig und verfügbar sind und wo weitere Potentiale in einer stärkeren Zusammenarbeit von Neurowissenschaften und Psychotherapie(-forschung) für die Zukunft liegen.

## **Einen Schritt weitergehen: Internet-basierte Interventionen über die Wirksamkeit hinaus erforschen**

**Convenor: Nina Rüegg, Universität Bern, Switzerland**

### **Wirkfaktoren in einem angeleiteten internetbasierten Selbsthilfeprogramm für anhaltende Trauer nach Partnerverlust**

**Jeannette Brodbeck, Thomas Berger, Nicola Biesold & Hansjörg Znoj, Universität Bern, Schweiz**

Viele Studien belegen die Wirksamkeit von Internet Interventionen zur Behandlung von psychischen Störungen. Was bisher wenig erforscht ist, sind Wirkmechanismen, die erklären, wie die Verbesserungen durch Internet Interventionen zustande kommen. Mittels einer randomisierten kontrollierten Studie wurde die Wirksamkeit einer Internet Intervention für anhaltende Trauersymptome nach einer Verwitwung oder Scheidung bei einer Stichprobe von 110 Personen belegt. Die hier präsentierten Analysen untersuchten Wirkmechanismen, wie die Intervention zu einer Verbesserung von Trauersymptomen und Psychopathologie führten. Die Teilnahme an der Intervention versus Wartegruppe führte zu einer Erhöhung der Emotionsregulation und der Selbstwirksamkeitserwartung bezüglich Bewältigung der Trauer. Mediationsanalysen zeigten, dass die Verbesserung der Emotionsregulation während der Intervention mit einer Reduktion der Trauersymptome verbunden war, nicht aber eine Verbesserung der Selbstwirksamkeitserwartung. Im Gegensatz dazu war eine Verbesserung der Selbstwirksamkeit, nicht aber eine Verbesserung der Emotionsregulation mit einer Reduktion der Psychopathologie verbunden. Diese differentiellen Effekte zeigen Ansatzpunkte für personalisierte Internet Interventionen auf.

### **Prädiktoren von Adhärenz und Behandlungserfolg in einer internetbasierten Intervention für Menschen mit Psychose**

**Nina Rüegg, Universität Bern, Schweiz**

**Steffen Moritz, Universitätsklinikum Hamburg-Eppendorf, Deutschland**

**Thies Lüdtke, The Arctic University of Norway, Norwegen**

**Thomas Berger, Universität Bern, Schweiz**

**Stefan Westermann, University of California, Berkeley, USA**

Die kognitive Verhaltenstherapie (KVT) ist als Behandlung für Menschen mit Psychose wirksam. Pilotstudien und erste randomisiert-kontrollierte Studien deuten darauf hin, dass auf KVT basierende internetbasierte Interventionen ebenfalls Effekte auf die Symptomatik erzielen können. Untersuchungen von Prädiktoren der Adhärenz und des Behandlungserfolgs können zum besseren Verständnis darüber beitragen, wem diese Art von Intervention helfen kann. Bisherigen Studien schlagen eine höhere Tagesdosis Antipsychotika und stärkere Krankheitseinsicht als mögliche Prädiktoren einer höheren Adhärenz in KVT für Psychose vor, während Faktoren wie das weibliche Geschlecht und weniger voreiliges Schlussfolgern in anderen Studien einen größeren Behandlungserfolg vorhersagten. Das Ziel dieser Studie ist die Identifikation spezifischer Prädiktoren der Adhärenz und des Behandlungserfolgs in einer internetbasierten Intervention für Menschen mit Psychose. Die Hypothesen wurden mittels einer Sekundäranalyse der Daten einer randomisiert-kontrollierten Studie zur internetbasierten Selbsthilfe für Psychose mit 101 Teilnehmer\*innen getestet. Unter Einsatz von linear gemischten Modellen werden darauf aufbauend zunächst Prädiktoren der Adhärenz und in einem zweiten Schritt Prädiktoren des Behandlungserfolgs identifiziert. Adhärenz wurde als Bearbeitung von mindestens 50% der vorgesehenen Einheiten definiert. Eine vorläufige Datenanalyse mit einfachen t-Tests zeigte, dass die adhärennten Teilnehmer\*innen ( $M=1.49$ ,  $SD=0.92$ ) signifikant weniger Mangel an Krankheitseinsicht hatten als die nicht-adhärennten Teilnehmer\*innen ( $M=1.88$ ,  $SD=1.22$ ;  $t(93)=1.75$ ,  $p=.04$ , einseitig getestet,  $d=-0.36$ ). Das Alter, das Geschlecht und die Dosis der Antipsychotika unterschieden sich in den Voranalysen nicht signifikant zwischen adhärennten und nicht-adhärennten Teilnehmer\*innen (alle  $p$ -Werte  $> 0.26$ ). Empfehlungen für zukünftige internetbasierte Interventionen für Menschen mit Psychose werden diskutiert.

## **Neustart - Eine internetbasierte Intervention für Menschen mit Glücksspielproblemen: Ergebnisse einer randomisiert-kontrollierten Studie**

**Lara Bückner, Josefine Gehlenborg & Florentine Larbig, Universitätsklinikum Hamburg-Eppendorf, Deutschland**

**Stefan Westermann, University of California, Berkeley, USA**

**Steffen Moritz, Universitätsklinikum Hamburg-Eppendorf, Deutschland**

Trotz des hohen Therapiebedarfs und breiter Evidenz für den Erfolg psychologischer Behandlungsprogramme erhält nur ein kleiner Teil von Menschen mit problematischem oder pathologischem Glücksspiel professionelle Hilfe. Internetbasierte Interventionen können helfen, Behandlungsbarrieren zu überwinden. Basierend auf ermutigenden Ergebnissen einer Pilotstudie (Bücker, Bierbrodt, Hand, Wittekind & Moritz, 2018, PLoS ONE) wurde ein niedrighschwelliges, anonymes und kostenloses Online-Selbsthilfeprogramm „Neustart“ entwickelt ([www.neustart-spielerhilfe.de](http://www.neustart-spielerhilfe.de)), welches hinsichtlich Wirksamkeit und Akzeptanz untersucht wurde. Zur Verstärkung des Behandlungserfolgs wurde das Online-Programm von einer Smartphone-App begleitet ("Neustart - change", iOS und Android). Es wurde eine randomisiert-kontrollierte Studie mit zwei Bedingungen (Interventionsgruppe und care-as-usual [CAU]), zwei Messpunkten (Post-Testung nach 8 Wochen) und insgesamt 146 Probanden durchgeführt. Primärer Outcome war die Reduktion der Glücksspielsymptomatik gemessen mit der Pathological Gambling Adaptation of Yale-Brown Obsessive Compulsive Scale (PG-YBOCS). Sowohl Intention-to-treat- als auch Per-Protocol-Analysen zeigten, dass die glücksspielspezifische und depressive Symptomatik in der Interventionsgruppe signifikant abnahm. Es ließ sich jedoch kein differenzieller Gruppenunterschied feststellen. Nachfolgende Moderationsanalysen zeigten, dass diejenigen mit einer stärkeren initialen Symptombelastung in höherem Maße profitierten als diejenigen mit einer leichteren Symptomschwere. Außerdem profitierten diejenigen Teilnehmer, die ein weiteres Selbsthilfeprogramm nutzten, weniger als jene, bei denen Neustart die einzige Behandlung darstellte im Vergleich zu CAU. Basierend auf den Ergebnissen wurde die App erweitert; die Ansprache per Chat soll zudem intensiviert werden, damit die Subgruppe von Teilnehmer mit differenziell größerem Therapieerfolg erweitert wird.

Despite the high demand for treatment and broad evidence for the success of psychological interventions, only a small proportion of individuals with problematic or pathological gambling receive professional help. Internet-based interventions can aid in overcoming treatment barriers. Based on the encouraging results of a pilot study (Bücker, Bierbrodt, Hand, Wittekind & Moritz, 2018, PLoS ONE), a low-threshold, anonymous and free online self-help program "Neustart" (engl. Restart; [www.neustart-spielerhilfe.de](http://www.neustart-spielerhilfe.de)) was developed and tested for effectiveness and acceptance. The online program was supplemented by a smartphone app ("Neustart - change", iOS and Android). A randomized controlled trial with two conditions (intervention and care-as-usual [CAU]), two measurement points (post-assessment after 8 weeks) and a total of 146 participants was conducted. The primary outcome was the reduction of gambling symptoms measured with the Pathological Gambling Adaptation of the Yale-Brown Obsessive Compulsive Scale (PG-YBOCS). Both intention-to-treat and per-protocol analyses showed that gambling-specific and depressive symptoms decreased significantly in the intervention group. However, group differences were not significant. Moderation analyses showed that among the treatment group, symptom severity moderated the effect of Restart on change in PG-YBOCS score such that participants in the treatment group with more severe symptoms improve

## **Internetbasierte Selbsthilfe für Anpassungsstörungen**

**Christian Thomas Moser, Christian Moser & Thomas Berger, Universität Bern, Schweiz**

**Rahel Bachem, Tel Aviv University, Israel**

**Andreas Maercker, Universität Zürich, Schweiz**

Anpassungsstörungen (AS) stellen ein Paradoxon im Gesundheitswesen dar. Auf der einen Seite sind sie eine der am häufigsten diagnostizierten psychischen Erkrankungen weltweit. Andererseits bleiben AD und seine möglichen Behandlungsmöglichkeiten ein stark vernachlässigtes Forschungsgebiet.

Die vorgestellte Studie verfolgt drei Ziele: Erstens, die Entwicklung einer nachhaltigen internetbasierten, ungeleiteten Intervention für AS. Zweitens, die Wirksamkeit der Intervention zu testen, einschließlich möglicher Moderatoren und Mediatoren. Schließlich soll die Intervention öffentlich zugänglich gemacht werden, sobald die Wirksamkeit nachgewiesen ist.

Wenn der ungeleitete Selbsthilfeansatz effektiv ist, könnte er in der Lage sein, den kritischen Mangel an evidenzbasierten Behandlungsoptionen für AS auf skalierbare, ressourceneffektive und sichere Weise zu beheben. Gleichzeitig werden damit die Voraussetzungen für eine weitere iterative Entwicklung in der Zukunft geschaffen.

## **Cognitive Behavioral Analysis System of Psychotherapy (CBASP) bei chronischer Depression: Bei wem wirkt es auf welche Weise und wie lange?**

**Convenor: Elisabeth Schramm, Universitätsklinikum Freiburg, Deutschland**

### **Kurz- und langfristige Wirksamkeit von Cognitive Behavioral Analysis System of Psychotherapy (CBASP) bei chronischer Depression mit frühem Beginn**

**Moritz Elsaesser, Universitätsklinikum Freiburg, Deutschland**

**HINTERGRUND:** Die Evidenz für den langfristigen Verlauf depressiver und insbesondere chronisch depressiver Störungen nach Akutbehandlung ist spärlich. Als störungsspezifisches Psychotherapieverfahren für chronische Depression ist das Cognitive Behavioral Analysis System of Psychotherapy (CBASP) einer der vielversprechendsten Ansätze. Um die langfristige Wirksamkeit von CBASP beurteilen zu können, liegen bislang jedoch nicht genügend Studienergebnisse mit ausreichend langen Beobachtungszeiträumen vor. Im Rahmen der größten deutschen randomisiert-kontrollierten Studie zur Wirksamkeit von CBASP präsentieren wir erstmalig die Follow-Up-Ergebnisse zwei Jahre nach Behandlungsende bei ambulanten Patienten mit chronischer Depression.

**METHODEN:** 1- und 2-Jahres-Katamnesen nach Beendigung von 32 Sitzungen über 48 Wochen mit entweder CBASP oder Supportiver Therapie (SP) bei 268 chronisch depressiven Patienten. Als primäres Outcome diente die Rate der „well weeks“ (keine oder minimale Symptome) des Longitudinal Interval Follow-Up Evaluation (LIFE). Sekundäre Maße waren unter anderem die selbst- und fremdbeurteilten depressiven Symptome (HRSD-24, QIDS-C, IDS-SR), Response- und Remissionsrate, Lebensqualität (SF-12, QLDS) und das allgemeine Funktionsniveau (GAF).

**ERGEBNISSE:** Von 268 randomisierten Patienten nahmen 207 (77%) am Follow-Up teil. Im ersten Jahr nach Ende der Akutbehandlung hatten CBASP-Patienten eine 36 % signifikant höhere Wahrscheinlichkeit eine „well week“ zu erleben als die SP-Patienten (CBASP  $M[SD]=23.49[20.24]$ , SP  $M[SD]=17.82[18.67]$ ; estimated rate ratio=1.36, 95%-CI: 1.05–1.76,  $p=.021$ ,  $d=0.24$ ). Über das gesamte 2 Jahres-Follow-Up war dieser differentielle Effekt zugunsten CBASP jedoch nicht signifikant (CBASP  $M[SD]=48.61[36.93]$ , SP  $M[SD]=38.99[34.79]$ ; estimated rate ratio=1.26, 95%-CI: 0.99–1.59,  $p=.057$ ,  $d=0.18$ ). Die Analyse sekundärer Maße zeigte statistisch signifikante Effekte von CBASP gegenüber SP hinsichtlich selbstbeurteilter depressiver Symptome (IDS-SR; CBASP  $M[SD]=24.94[14.13]$ ,

SP  $M[SD]=31.04[14.71]$ ;  $p=.015$ ,  $d=-0.39$ ) und depressionspezifischer Lebensqualität (QLDS; CBASP  $M[SD]=11.02[9.66]$ , SP  $M[SD]=13.60[9.81]$ ;  $p=.048$ ,  $d=-0.25$ ) nach einem Jahr, nicht aber 2 Jahre nach Ende der Akutbehandlung. Es gab keine signifikanten Unterschiede bei den Remissionsraten (CBASP: nach 1 Jahr 40%, nach 2 Jahren: 40.2%; SP: nach 1 Jahr 28.9%, nach 2 Jahren 33%) und der Time to Relapse.

**SCHLUSSFOLGERUNG:** Patienten, die in der Akutbehandlung mit CBASP behandelt wurden, zeigten ein Jahr nach Behandlungsende kleine bis moderate Effekte gegenüber der SP-Kontrollgruppe hinsichtlich „well weeks“, selbstbeurteilter Depressivität und Lebensqualität. Die statistisch signifikante Überlegenheit der CBASP-Gruppe verschwand jedoch im Laufe des zweiten Jahres. Implikationen für die Notwendigkeit von Erhaltungstherapie sowie personalisierte Behandlungsansätze werden diskutiert.

### **Differentielle Effekte von Cognitive Behavioral Analysis System of Psychotherapy (CBASP) im Vergleich zu supportiver Psychotherapie (SP) auf die therapeutische Allianz in der Behandlung von chronischer Depression**

**Hannah Eich, Zentralinstitut für Seelische Gesundheit Mannheim, Deutschland**

**Levente Kriston, Universitätsklinikum Hamburg-Eppendorf, Deutschland**

**Elisabeth Schramm, Universität Freiburg, Deutschland**

**Winfried Rief, Universität Marburg, Deutschland**

**Nikola Stenzel, Psychologische Hochschule Berlin, Deutschland**

**Josef Bailer, Zentralinstitut für Seelische Gesundheit Mannheim, Deutschland**

Hintergrund: McCulloughs Cognitive Behavioral Analysis System of Psychotherapy (CBASP) soll persistent depressiven Patienten helfen, ihre interpersonellen Schwierigkeiten, welche ihren Ursprung in frühen Traumatisierungen (childhood maltreatment; CM) haben, zu verbessern. Diese interpersonellen Probleme treten auch in der Beziehung zwischen Patienten und Therapeuten, also in der therapeutischen Allianz, auf. Diese Allianz ist zentrales Element in CBASP. Wir untersuchten folgende Hypothesen: (1) CBASP wirkt sich insgesamt positiver auf die Allianz aus als eine nicht spezifische supportive Psychotherapie (SP). (2) Die Allianz verbessert sich im Verlauf der Therapie mit CBASP und SP. (3) Der positive Verlauf der Allianz nimmt am stärksten in der Patientengruppe zu, die eine starke frühe Traumatisierung (CM) haben und mit CBASP behandelt werden.

Methoden: In einer multizentrischen randomisierten klinischen Studie, in der die Wirksamkeit von CBASP vs. SP untersucht wurde, füllten Patienten ( $n = 268$ ) den Helping Alliance Questionnaire (HAQ; 2 Subskalen: ‚Beziehungszufriedenheit‘ und ‚Ergebniszufriedenheit‘) nach jeder Therapiestunde aus. CM wurde mit dem Childhood Trauma Questionnaire (CTQ) vor Therapiebeginn erhoben. Basierend auf dem CTQ Wert wurden die Patienten in 3 Gruppen (niedrige, mittlere und hohe CM) unterteilt. Die Behandlungen dauerten 48 Wochen und beinhalteten 32 Einzeltherapiestunden. Die Hypothesen wurden mittels eines hierarchisch linearen Modells untersucht.

Ergebnisse: (1) Patienten in der CBASP Bedingung bewerteten die Allianz auf beiden Subskalen positiver als Patienten in der SP Bedingung. (2) Auf beiden Subskalen verbesserte sich die Allianz zwischen Patient und Therapeut im Verlauf der Behandlung mit CBASP/SP. (3) Nur bei Patienten mit starker frühen Traumatisierung führte CBASP zu einer stärkeren Verbesserung der Allianz als SP (insb. auf Subskala ‚Ergebniszufriedenheit‘)

Zusammenfassung: Unsere Ergebnisse indizieren, dass CBASP sich positiver auf die therapeutische Allianz auswirkt als SP. Darüber hinaus hat CBASP einen besonders positiven Effekt auf die ‚Ergebniszufriedenheit‘ in der Patientengruppe mit starker CM.

### **Unerwünschte Ereignisse bei einer störungsspezifischen Behandlung mit Cognitive Behavioral Analysis System of Psychotherapy (CBASP) im Vergleich zu einer unspezifischen Psychotherapie**

**Ramona Meister, Psychotherapeutin, Deutschland**

**Jana Lanio, Universitätsklinikum Hamburg-Eppendorf, Deutschland**

**Thomas Fangmeier, Universitätsklinikum Freiburg, Deutschland**

**Martin Härter, Universitätsklinikum Hamburg-Eppendorf, Deutschland**

**Elisabeth Schramm, Universitätsklinikum Freiburg, Deutschland**

**Ingo Zobel, Hochschule Fresenius, Deutschland**

**Martin Hautzinger, Eberhard Karls Universität Tübingen, Deutschland**

**Yvonne Nestoriuc, Helmut Schmidt Universität - Universität der Bundeswehr Hamburg, Deutschland**

**Levente Kriston - Universitätsklinikum Hamburg-Eppendorf, Deutschland**

Hintergrund: In der Psychotherapieforschung wurden unerwünschte Ereignisse bislang vernachlässigt. Auch bei der für chronisch depressive Patienten spezifisch entwickelten Behandlung mit Cognitive Behavioral Analysis System of Psychotherapy (CBASP) ist noch weitestgehend unbekannt, mit welchen unerwünschten Ereignissen gerechnet werden muss. Ziel der Studie war es, unerwünschte Ereignisse, die während der Behandlung mit CBASP und während einer störungsübergreifenden Behandlung mit supportiver Psychotherapie (SP) bei chronisch depressiven Patienten auftraten, zu vergleichen.

Methoden: Im Rahmen einer randomisierten kontrollierten Studie wurden chronisch depressive Patienten/innen im ambulanten Setting mit 32 Einzelsitzungen CBASP oder SP behandelt. Vor jeder Sitzung befragten die Therapeuten/innen die Patienten/innen mittels einer standardisierten Checkliste nach unerwünschten Ereignissen, nach deren Intensität und nach deren Bezug zur Studie. Analysiert wurden die mittlere Anzahl mindestens eines unerwünschten Ereignisses und mindestens eines schweren unerwünschten Ereignisses pro Patient/in sowie die mittlere Anzahl von neuen bzw. verstärkten Symptomen, von Suizidgedanken, und von Problemen im Privatleben, im Berufsleben und in der Patient-Therapeut-Beziehung mit sogenannten Gamma Frailty Recurrent Event Modellen. Hazard Ratios und zugehörige 95% Konfidenzintervalle wurden berechnet.

Ergebnisse: Von den insgesamt 268 randomisierten Patienten/innen begannen 260 Patienten/innen die Behandlung und wurden in die Analysen eingeschlossen. Es zeigten sich Unterschiede in der mittleren Anzahl unerwünschter Ereignisse pro Patient/in zwischen beiden psychotherapeutischen Behandlungen. Sensitivitätsanalysen, in denen nur unerwünschte Ereignisse berücksichtigt wurden, für die ein Bezug zur Studie angenommen wurde, stützten die Ergebnisse.

Schlussfolgerungen: Mit der vorliegenden Studie konnte gezeigt werden, dass unerwünschte Ereignisse bei psychotherapeutischen Behandlungen und auch bei einer Behandlung mit CBASP auftreten. Zudem konnten Hinweise auf ein spezifisches Muster unerwünschter Ereignisse bei einer Behandlung mit CBASP, aber auch mit SP geliefert werden.



## **Neue Entwicklungen in der Kognitiven Verhaltenstherapie bei Angststörungen**

**Convenor: Christina Totzeck, Ruhr-Universität Bochum, Germany**

**Discussant: Ruth von Brachel, Ruhr-Universität Bochum, Germany**

### **Extinktionslernen in der Praxis: Was sagen uns Modelle des inhibitorischen Lernens für die Expositionstherapie?**

**Ingmar Heinig, Katrin Hummel & Hans-Ulrich Wittchen, Technische Universität Dresden, Deutschland**

Expositionsverfahren gelten in der Behandlung von Angststörungen als Methode der Wahl. Ein nicht unerheblicher Teil der Patienten profitiert dennoch nicht oder nicht ausreichend von dieser Methode. Ein möglicher Ansatz zur Verbesserung der Verfahren liegt in der Übersetzung experimenteller Befunde zum Inhibitionslernen - als einem vermuteten Wirkmechanismus - in therapeutische Interventionen. Im Vortrag wird zunächst die Idee des inhibitorischen Lernens kurz vorgestellt. Danach werden zentrale Konsequenzen diskutiert, die sich daraus für die Durchführung von Expositionstherapien ergeben: 1. Die störungsübergreifende Konzeption der Therapie 2. Die Orientierung an zentralen Befürchtungen 3. Konkrete Hinweise für die Gestaltung der Expositionsübungen: Wie sollten die Übungen ausgewählt werden, welche Mikrointerventionen können während der Übung eingesetzt werden, wann sollte eine Übung beendet werden? Dabei wird besonders auf Unterschiede zu einem klassischen habituationsorientierten Vorgehen eingegangen. Anhand des deutschlandweiten klinischen Forschungsverbundes PROTECT-AD wird abschließend gezeigt, wie inhibitionsorientierte Übungen bei Patienten mit unterschiedlichen Angststörungen umgesetzt werden können.

### **Besonderheiten bei der Expositionsbehandlung von Kindern und Jugendlichen mit Angststörungen**

**Verena Pflug, Silvia Schneider, Ruhr-Universität Bochum, Deutschland**

Angststörungen zählen zu den häufigsten psychischen Störungen des Kindes- und Jugendalters. Sie beginnen sehr früh, sind zu einem erheblichen Anteil stabil und stellen einen bedeutsamen Risikofaktor für das Auftreten einer psychischen Störung im Erwachsenenalter dar. Ziel des Teilprojekts P2 des Forschungsverbundes PROTECT-AD ist die Verbesserung der Versorgung von Kindern und Jugendlichen mit Angststörungen. Dazu untersucht das vom Bundesministerium für Bildung und Forschung geförderte Projekt in einer multizentrischen Studie ([www.kiba-studie.de](http://www.kiba-studie.de)), ob ein expliziter Einbezug der Eltern in die Behandlung des Kindes bessere Behandlungsergebnisse erbringt als das Kind alleine zu behandeln. Im Vortrag werden zunächst das Design der Studie vorgestellt und anhand des Bochumer 3-Ebenen Modells (Lippert, Pflug, Lavalée & Schneider, 2018) Möglichkeiten des Elterneinbezugs thematisiert. Zudem soll auf besondere Herausforderungen in der Psychotherapie bei Kindern und Jugendlichen mit Angststörungen eingegangen werden. Dazu werden kindgerechte Materialien vorgestellt, die im Rahmen des Projekts entwickelt worden sind, z.B. zur Befürchtungsüberprüfung oder zur Erfassung von Nebenwirkungen (Kinder-INEP; Bieda, Pflug & Schneider, 2018).

### **Dysfunktionen der Emotionsregulation bei Angststörungen sowie deren Veränderungen durch Expositionstherapien**

**Christina Totzeck, Ruhr-Universität Bochum, Deutschland**

Die Regulation von Emotionen gewinnt in der klinischen Psychologie immer mehr an Bedeutung. Im Mittelpunkt stehen hierbei die Erforschung von dysfunktionalen Strategien sowie deren Veränderung durch therapeutische Interventionen. Im Vortrag werden daher mehrere Fragestellungen vorgestellt und diskutiert: 1. Welche dysfunktionalen Regulationsstrategien sind bei Patientinnen und Patienten mit Angststörungen zu finden? 2. Gibt es störungsspezifische Muster? 3. Wie beeinflusst die kognitive Verhaltenstherapie diese Strategien? 4. Wie wirkt sich eine erfolgreiche Therapie auf die Emotionsregulation aus? Zur Beantwortung dieser Fragestellungen wurden zwei unterschiedliche Mess-Instrumente an Patientinnen und Patienten angewandt. Mit dem „Emotion Regulation Questionnaire“ (ERQ; Gross & John, 2003) können Präferenzen für zwei häufig genutzte Strategien zur Emotionsregulation, nämlich Unterdrückung und Neubewertung, erfasst werden. Der „Affective Style Questionnaire“ (ASQ; Hofmann & Kashdan, 2010) hingegen misst die affektiven Stile Unterdrücken, Neubewerten und Tolerieren von Emotionen. Die Ergebnisse aus zwei Angst-Therapieprojekten, in denen die Mess-Instrumente verwendet wurden, werden präsentiert und Ausblicke für weitere Ansätze diskutiert.

### **Klinischer und wissenschaftlicher Nutzen von expositionsbasierten Einsitzungsprogrammen bei situativen Ängsten**

**Andre Wannemüller & Jürgen Margraf, Ruhr-Universität Bochum, Deutschland**

Die Nachfrage nach Kognitiver Verhaltenstherapie (KVT) ist in Europa im letzten Jahrzehnt stetig gestiegen, genauso wie ihr Anteil an den Gesamtausgaben für Gesundheitsleistungen. Die Anzahl und Kapazität von Anbietern ist aber begrenzt, so dass der Zugang zu KVT für viele Betroffene nach wie vor schwierig oder kostspielig ist. Die Entwicklung leicht zugänglicher Behandlungsverfahren, die sowohl in Hinblick auf zeitliche- als auch Kostenaspekte hoch effizient sind und die Wirksamkeit bereits existierender Methoden beibehalten, ist daher ein dringendes Erfordernis. Besonders vielsprechend erscheinen solche Ansätze bei Störungen die häufig sind und für die bereits hoch-wirksame Behandlungskonzepte existieren, was für Spezifische Phobien beides zutrifft.

Daher haben wir gängige One-Session Behandlungen Spezifischer Phobien für den Einsatz in Großgruppen modifiziert und die Machbarkeit und Wirksamkeit dieser Programme an fünf Kohorten mit unterschiedlichen situativen Ängsten (Spinnen n = 79; Zahnbehandlungen n = 40; Blut-Spritzen-Verletzungen n = 37; Höhen n = 104; Fliegen n = 138) erprobt. Im Vortrag werden die kurz- und langfristigen Behandlungseffekte auf subjektive und behaviorale Furchtkomponenten vorgestellt, die in ihrer Stärke, je nach untersuchter Furchtkohorte, mit denen von Individualtherapien vergleichbar waren. Die hohe Standardisierung und Zeiteffizienz der Großgruppen-One-Session-Behandlungen macht sie außerdem zu potentiell hilfreichen Werkzeugen der klinischen Forschung, da die externe Validität laborexperimenteller Befunde leichter in klinischen Kontexten getestet und Behandlungsmoderatoren identifiziert werden können. Im Vortrag werden verschiedene psychologische und biologische Moderatoren der Großgruppenprogramme vorgestellt.

## **Positive Perspektiven in der Psychotherapie**

**Convenors: Ulrike Willutzki, Universität Witten/Herdecke, Deutschland & Anton-Rupert Laireiter, Universität Salzburg und Universität Wien, Österreich**

**Chairs: Ulrike Willutzki, Universität Witten/Herdecke, Deutschland & Anton-Rupert Laireiter, Universität Salzburg und Universität Wien, Österreich**

### **Wittener Ressourcenfragebogen (WIRF): Ein multidimensionales Diagnoseinstrument zur Erfassung personaler Ressourcen**

**Jan Schürmann, Universität Salzburg, Österreich**

**Philipp Victor & Ulrike Willutzki, Universität Witten/Herdecke, Deutschland**

Empirische Hinweise zeigen, dass Menschen mit psychischen Störungen eine erhöhte negative Affektivität, eine eingeschränkte Zugänglichkeit zu positiven Emotionen und eine geringe Selbstwirksamkeitserwartung aufweisen. Es ist daher leicht verständlich, dass der Fokus im therapeutischen Gespräch oftmals auf Problemen, Defiziten und Störungen der Patient\*innen liegt. Auch in der klinischen Diagnostik zeigt sich dieser Fokus, denn verbreitete Instrumente erfassen vorrangig Symptome. Ergänzend zu dieser Problemperspektive haben sich in den letzten Jahren auch positive Ansätze im klinischen Kontext entwickelt. Hierbei werden Ressourcen, also die positiven und funktionalen Aspekte im Leben der Patient\*innen, fokussiert. Die Ressourcen einer Person sind dahingehend mit psychischer Gesundheit assoziiert. Des Weiteren wird die Aktivierung und Nutzung von Ressourcen sogar als eigener Wirkfaktor für therapeutische Behandlungen angesehen. Dennoch werden Ressourcen häufig weder von Patient\*innen gesehen, noch von Therapeut\*innen systematisch genutzt. Trotz ihrer Bedeutung für Therapieprozess und -ergebnis fehlen bisher differenzierte Instrumente zur Ressourcendiagnostik weitgehend. Die Implementierung einer ergänzenden positiven Perspektive scheint daher zentral. Diesbezüglich wurde der Wittener Ressourcenfragebogen (WIRF) entwickelt. Er stellt ein reliables und valides Instrument zur Erfassung subjektiver Ressourcen dar und bietet durch seine mehrdimensionale Struktur praktische Ansätze zur ressourcenorientierten Arbeit. Im Vortrag wird der WIRF in seiner aktuellen Struktur vorgestellt und in Relation zu anderen positiven und problemorientierten Instrumenten gesetzt. Zudem werden Zusammenhänge zum therapeutischen Prozess und Outcome sowie praktische Implikationen herausgearbeitet.

### **Positiv-Psychologische Interventionen in Psychotherapie und Coaching – Konzepte und Effekte**

**Almut Feld, Universität Salzburg, Österreich**

**Anton-Rupert Laireiter, Universität Salzburg und Universität Wien, Österreich**

**Almut Feld, Marie Nerstheimer, Teresa Pirklbauer, Janina Madelaine Rudy & Raphael Schuster, Universität Salzburg, Österreich**

**Linda Furchtlehner, Kepler Universitätsklinikum, Österreich**

Hintergrund. Die Positive Psychologie hat viele so genannte Positiv-psychologische Interventionen (PPI) hervorgebracht. Diese werden primär im außerklinischen Bereich eingesetzt; erst in den letzten Jahren wurden diese auch zur Behandlung psychischer Störungen und deren Vorläufer entwickelt. Zahlreiche Studien belegen, dass diese PPI das Wohlbefinden von Personen verbessern und zur Reduktion von Stress und Depression beitragen können (Bolier et al., 2013). Insgesamt gibt es aber einen Mangel an Forschung zu kombinierten PPI im Einzel- und Gruppensetting. Auch wurden Effekte auf positives und negatives Befinden gemeinsam bisher selten bis wenig berücksichtigt. Methode. Ausgehend von der Positiven Psychotherapie (Rashid & Seligman, 2018; Seligman, Rashid, & Parks, 2006) wurden von der Arbeitsgruppe des Erstautors verschiedene Einzel- und Gruppenansätze zur Behandlung unterschiedlicher psychischer Störungen und deren Vorläufer entwickelt. Diese Ansätze werden vorgestellt und die wichtigsten Ergebnisse derselben präsentiert. Ergebnisse. Die Ergebnisse zeigen, dass kombinierte PPI im Einzel- wie im Gruppensetting insgesamt sehr wirksam sind und zur Reduktion von Belastungen, Depression und zur Verbesserung der positiven Befindlichkeit in einem hohen bis sehr hohen Ausmaß (Cohen's  $d = 0.8 - 1.50$ ) beitragen. Die Effekte sind über verschiedene Follow-up-Zeiträume hinweg stabil. Moderatoranalysen zeigen, dass insbesondere die initiale Symptomausprägung sowie die Passung der Interventionen mit persönlichen Erwartungen, die Zufriedenheit und erlebte Nützlichkeit mit höherer Wirksamkeit assoziiert sind.

Konklusion. Die Ergebnisse legen kombinierte PPI als wirkungsvolle Interventionen im klinischen wie präklinischen Bereich nahe. Weiterführende Studien sollten den Ansatz, der sich explizit als transdiagnostisch versteht, auch bei anderen Störungen und verstärkt auch im Vergleich zu anderen wirkungsvollen Methoden überprüfen.

### **Positiv orientierte Gruppentherapie für Patient\*innen mit chronifizierten affektiven Störungen: Ergebnisse einer Pilotstudie**

**Anne Trösken, Freie Universität Berlin, Deutschland**

In der ambulanten Psychotherapie werden bislang nur in sehr geringem Maße Gruppentherapien als Ergänzung zur Einzeltherapie angeboten. Dabei scheint es wahrscheinlich, dass insbesondere die Kombinationsbehandlung Möglichkeiten zur Verbesserung der Wirksamkeit gerade für Patient\*innen mit komplexen und chronifizierten Verlaufsformen bietet. Es wird ein Konzept für eine ambulante Gruppentherapie als Add-on für die kognitiv-verhaltenstherapeutische Einzeltherapie bei chronisch depressiven Patient\*innen vorgestellt. In 12 Einheiten werden mit Unterstützung aktiver und kreativer Methoden Ressourcen aktiviert und Fertigkeiten zur besseren Bedürfnisbefriedigung vermittelt. Die konkreten ressourcenorientierten Interventionen adressieren die spezifischen Anforderungen chronifizierter Depressionen. Erste Ergebnisse einer nicht-kontrollierten Pilotstudie verweisen auf mittlere Effektstärken in der Reduktion depressiver Symptome sowie auf einen möglichen Boostereffekt für die verhaltenstherapeutische Einzeltherapie. Eine deutliche Heterogenität in der individuellen Ansprechbarkeit der PatientInnen auf das Programm wurde beobachtet und wird diskutiert. Ein Ausblick auf weiterführende Forschungsfragestellungen wird gegeben.

### **Positive mentale Gesundheit als Resilienzfaktor gegenüber Suizidgedanken und Suizidversuchen**

**Tobias Teismann, Ruhr-Universität Bochum, Deutschland**

Positive mentale Gesundheit hat sich in einer Reihe von Untersuchungen als Resilienzfaktor gegenüber suizidalem Erleben und Verhalten erwiesen. Die entsprechenden Zusammenhänge zeigten sich dabei in studentischen und in klinischen Stichproben, in deutschen und in chinesischen Stichproben, in Quer- und in Längsschnittstudien, wie auch im Zusammenhang mit verschiedenen Risikofaktoren (Depression, Cyberbullying, Perceived Burdensomeness, Suizidgedanken). Im Rahmen des Vortrags wird die derzeitige Studienlage zur Bedeutung positiver mentaler Gesundheit referiert. Es werden potentielle Wirkmechanismen diskutiert und das Verhältnis von negativer und positiver

mentaler Gesundheit wird kritisch reflektiert. Schließlich wird auf praktische Implikationen der Befundlage für die Risikoabschätzung und Behandlung von suizidalen Patienten eingegangen.

## **Psychotherapie Aus- und Weiterbildung: Wie sollte sie gestaltet werden, und was bedeutet therapeutische Kompetenz?**

**Convenor: Ulrike Willutzki, Universität Witten/Herdecke, Germany**

### **Psychotherapeutische Kompetenz im Verlauf der Psychotherapieausbildung: Trainee- und Ausbilder\*inneneinschätzung und ihr Zusammenhang zum Ausbildungsergebnis**

**Karina Zickhardt, Universität Salzburg, Österreich**

**Anton-Rupert Laireiter, Universität Salzburg und Universität Wien, Österreich**

Die bisherige Psychotherapie-Ausbildungsforschung hat sich primär mit den Effekten einzelner Ausbildungselemente (z.B. Methodentraining, Lehrtherapie/Selbsterfahrung, Supervision) auf die Entwicklung von Psychotherapeuten in Ausbildung und deren Effekte auf ihre psychotherapeutische Effektivität beschäftigt. Wenig bis gar nicht wurde untersucht, ob und in welchem Ausmaß Ausbildung in Psychotherapie als Ganzes zur Entwicklung psychotherapeutischer Kompetenzen beiträgt. Die bisherige Ausbildungsforschung konnte zeigen, dass psychotherapeutische Kompetenzen in einem mittleren Ausmaß mit dem Erfolg von Psychotherapie assoziiert sind. Entsprechend läge es nahe zu untersuchen, wie Ausbildung zur Entwicklung derselben beiträgt und auf diese Weise indirekt zur Verbesserung therapeutischer Wirksamkeit beiträgt. Der Beitrag stellt eine längsschnittliche Studie vor, die zur Untersuchung der Entwicklung psychotherapeutischer Kompetenzen über den Prozess der Ausbildung hin konzipiert und entwickelt worden ist. Präsentiert werden das Konzept und Design sowie erste Ergebnisse der prospektiven Auswertung der Selbst- und durch die Trainer\*innen/Supervisor\*innen eingeschätzten Outcomes der Ausbildung und der Kompetenzveränderungen der AusbildungsteilnehmerInnen. Auch werden Ergebnisse zu den Determinanten der Effekte berichtet. Abschließend werden die Implikationen der vorliegenden Studie für die Ausbildung und zukünftige Ausbildungsforschung diskutiert, ebenso wie auf Limitationen derselben eingegangen wird.

### **Novizen- und Experteneinschätzungen zur interpersonellen Kompetenz als Basis für Auswahlentscheidungen zur Psychotherapieausbildung**

**Anne Möllmann & Henning Schöttke, Universität Osnabrück, Deutschland**

Psychotherapeutische Kompetenzen, insbesondere interpersonelle Kompetenzen gelten als wichtige Prädiktoren für Therapieerfolg. Es ist unklar, ob und wie stark interpersonelle Kompetenzen während der Psychotherapieausbildung beeinflusst werden können bzw. inwieweit sie den Erfolg einer Psychotherapieausbildung fördern oder behindern. Dazu wurde ein Assessmentcenter (AC) zur (Experten-) Einschätzung therapierelevanter interpersoneller Verhaltensweisen (TRIB-G) entwickelt, die im Auswahlverfahren potenzieller Ausbildungstherapeutinnen zur Kompetenzeinschätzung eingesetzt wird (Schöttke et al., 2015). Bisherige Ergebnisse zeigen, dass TRIB-G und der Ausbildungserfolg (Prüfungsnoten sowie Therapie-Outcome in den Ausbildungstherapien) hoch miteinander korrelieren. Die aktuelle Studie untersucht, 1) wie Experten- und Novizeneinschätzungen zur therapeutischen Eignung zusammenhängen, 2) inwieweit Novizenselbsteinschätzungen einem positiven Beurteilerbias unterliegen und 3) ob auch Novizenselbsteinschätzungen mit dem Ausbildungserfolg zusammenhängen. Dazu wurde die Eignung von 149 Bewerberinnen im AC von ihnen selbst (Novizenselbst), den Mitbewerberinnen (Novizenfremd) und Supervisorinnen (Experten) eingeschätzt. Dazu wurde eine Gruppendiskussion der Novizen zu einer Therapieintervention von den Experten mittels TRIB-G eingeschätzt. Die Novizen sollten sich in einem Round Robin Design gegenseitig hinsichtlich der Geeignetheit in eine Rangreihe bringen. In einem zweiten Schritt sollten sie sich selbst in die Rangreihe hinsichtlich ihrer eigenen Geeignetheit einschätzen. Die Experten führten ebenfalls das Ranking durch. Es zeigten sich signifikant Übereinstimmungen zwischen den Experten und der Novizenfremdeinschätzung. Experten- und Novizenselbstbeurteilungen korrelieren signifikant geringer als die beiden Fremdeinschätzungen. Novizenfremdurteil und Novizenselbstbeurteilung korrelierten nicht signifikant. Bewerberinnen wiesen, gemessen an den Expertenurteilen, eine deutliche Selbstüberschätzung ihrer Eignung auf. Die Analyse einer Sub-Stichprobe aus Bewerberinnen mit inzwischen abgeschlossener Ausbildung zeigte erneut einen positiven Zusammenhang zwischen TRIB-G und dem Ausbildungserfolg, jedoch keinen Zusammenhang zwischen Novizenselbsteinschätzung und Ausbildungserfolg. Die Ergebnisse dieser Untersuchung werden vor dem Hintergrund der aktuellen Befunde aus der Therapie- und Ausbildungsforschung diskutiert.

### **Wie lässt sich die Überprüfung von psychotherapeutischen Fertigkeiten mit Hilfe von Schauspielpatienten bewerten?**

**Heiner Vogel, Universität Würzburg, Deutschland**

**Julia Eckel, Universität Heidelberg, Deutschland**

**Georg W. Alpers, Universität Mannheim, Deutschland**

**Rudi Merod, Deutsche Gesellschaft für Verhaltenstherapie-Ausbildungsakademie, Ausbildungszentrum München/Bad Tölz, Deutschland**

**Silke Neuderth, Hochschule Würzburg-Schweinfurt, Deutschland**

Schauspielpatienten (SP) werden seit Jahren im Studium der Humanmedizin im Rahmen der sog. OSCE-Prüfungen (Objective Standardized Clinical Examinations) zur Überprüfung von praktischen Fertigkeiten genutzt. Vor diesem Hintergrund haben wir uns in der vorliegenden Studie mit der Entwicklung, Erprobung und methodischen Absicherung einer Prüfung psychotherapeutischer Kompetenzen mittels Schauspielpatienten beschäftigt.

48 Psychotherapie-Ausbildungsteilnehmerinnen und -teilnehmer führten ein Erstgespräch mit einem Schauspielpatienten (SP), welches videodokumentiert wurde. Zur Berechnung der Interraterreliabilität wurden alle Gespräche von zwei erfahrenen Supervisoren unabhängig voneinander hinsichtlich psychotherapeutischer Kompetenzen bewertet. Über halbstrukturierte Interviews mit den Ausbildungsteilnehmern und Supervisoren wurden Hinweise auf die Validität des SP-Interviews und der Beobachtungsskala zur Bewertung der psychotherapeutischen Kompetenzen gewonnen. Zur Prüfung der Standardisierung (Objektivität) wurde die SP-Rollendarstellung mit dem Rollenskript verglichen.

Im Ergebnis zeigt sich, dass die SP-Gespräche als authentische und valide Methode bewertet werden, wobei ein Standardisierungsgrad von 90% erreicht werden konnte. Die mittlere Interraterreliabilität bei der Nutzung eines globalen Kompetenzratings lag mit einem ICC von 0,44 im akzeptablen Bereich; bei Nutzung einer Beobachtercheckliste wurde ein gemittelter Weighted Cohens Kappa von 0,29 erreicht.

Das globale Kompetenzrating wird von den Supervisoren im Vergleich zur Checkliste als valideres Verfahren zur Messung von psychotherapeutischen Kompetenzen evaluiert. Einsatzmöglichkeiten und -grenzen von SP-Gesprächen in der Psychotherapieaus- und -weiterbildung, als Feedbackinstrument oder zur Erforschung von Therapeutenvariablen werden diskutiert. Soweit die SP-Methode als Assessment eingesetzt wird, scheint es trotz der hohen Augenscheinvalidität der Methode wichtig, Möglichkeiten zur Verbesserung der psychometrischen Eigenschaften, insbesondere der Reliabilität zu untersuchen.

### **Einzel Selbsterfahrung - Ein Modellprojekt in der Verhaltenstherapieausbildung**

**Anja Dresenkamp, Deutsche Gesellschaft für Verhaltenstherapie, Deutschland**

Gruppen-Selbsterfahrung ist ein fester Bestandteil in der Verhaltenstherapie-Ausbildung. Die Selbsterfahrung dient den angehenden Therapeut\*innen dazu, unabhängig vom konkreten Therapiegeschehen, das eigene Erleben und Verhalten in Hinblick auf den therapeutischen Kontext zu reflektieren und weiterzuentwickeln. „Vor allem Teilnehmer einer VT-Ausbildung wünschen sich mehr Einzel Selbsterfahrung, die bei dieser Ausbildung nicht vom Psychotherapeutengesetz vorgeschrieben ist“ (Strauss u.a., 2009).

**Methode:**

Modellhaft wurden an vier Ausbildungszentren der DGVt- Ausbildungsakademie 20 Stunden Einzel-Selbsterfahrung durchgeführt.

Evaluiert wurde das Modellprojekt anhand von Prä-, Zwischen- und Post- Messungen per Fragebögen, die auch offene Antwortformate enthielten. Die Evaluation bezog sich vor allem auf den Nutzen für die Förderung der therapeutischen Kompetenz und die Steigerung der therapeutischen Sicherheit.

**Ergebnisse:**

Die persönliche und professionelle Entwicklung durch Einzel- Selbsterfahrung wurde signifikant höher eingeschätzt als durch Gruppenselbsterfahrung. Bei der Einzel-Selbsterfahrung wird der Abbau der Unsicherheit und die Erfahrung selbst Klient\*in zu sein hervorgehoben, bei der Gruppen-Selbsterfahrung treten die Gruppen-bezogenen Erfahrungen in den Vordergrund, wie „sich verlassen können“ auf Andere.

Die Implikationen für die Praxis werden diskutiert.

### **Cognitive Behavioral Therapy for Improving Primary Mental Health Care**

**Convenor: Birgit Watzke, University of Zürich, Switzerland**

**Discussant: Claudi Bockting, Amsterdam University Medical Center, the Netherlands**

#### **The BLENded Care for Depressive Symptoms IN General Practice (BLENDING) – Study: First Results from ‘Ecological Momentary Assessment’**

**Huibert Burger, University of Zürich, Switzerland**

**Hans Wouters, University Medical Center Groningen, the Netherlands**

**Claudi Bockting, Amsterdam University Medical Center, Location AMC, the Netherlands**

**Introduction:** Patients prefer psychological treatments but they are under-used, mainly due to time constraints and limited accessibility. A promising approach is blended care, i.e. web-based intervention guided by a therapist. However, its (cost-)effectiveness relative to care as usual (CAU) in routine general practice is unknown. In the BLENDING study we aim to fill this knowledge gap. An additional objective was to explore during treatment the value of momentarily assessed affect scores as indicators of mental resilience, and compare them between treatment groups. Here we preliminarily report on the second objective only.

**Methods:** The BLENDING study is an ongoing pragmatic trial aiming to include 300 patients with depressive symptoms in general practice. They are randomized to CAU (commonly antidepressants) or blended care consisting of an eight-week web-based program based on behavioural activation with integrated monitoring of depressive symptomatology and automatized feedback. GPs or their mental health workers coach the participants through regular face-to-face or telephonic consultations with at least three sessions. Depressive symptomatology (primary outcome at month three) and other outcomes are assessed during a one-year follow-up. In a subsample, emotions and affect, and daily events are rated using an Android smartphone app (ecological momentary assessment (EMA)) every other day, 5 times per day, during 10 weeks of treatment on a VAS (0-100). We obtained EMA ratings on positive affect (e.g. being cheerful) and negative affect (e.g. feeling gloomy). Per assessment we calculated a mean score for positive affect and negative affect on the basis of which we calculated the following resilience indicators: variance and temporal autocorrelation of negative affect, and cross-correlation between positive and negative affect. Using ANCOVA, we assessed the association between these indicators and depressive symptoms according to the Hamilton Depression Scale 17-items (HRSD-17) score at the end of the 12-week follow-up, controlling for baseline HDRS-17.

**Results:** For the EMA substudy, a total of 38 patients were recruited through 13 GP practices. Of them, 33 (87%) had an Android phone of whom 20 (61%) initiated EMA. Out of these, 17 (85%) had complete data at the time of analysis (10 (59%) received CAU). The mean (SD) scores on the HRSD-17 changed from 13.8 (6.3) to 10.1 (5.7),  $p = 0.050$ . Negative affect autocorrelation and variance were both significantly associated with substantial increases in HRSD-17 ( $\beta = 0.547$ ;  $p = 0.032$  and  $0.624$ ;  $p = 0.019$ , respectively). Cross-correlation did not predict depressive symptoms at follow-up ( $-0.251$ ;  $p = 0.373$ ). When simultaneously analysed, the indicators were no longer predictive of change in HRSD-17 indicating non-independency. Treatment was not associated with the indicators.

**Discussion:** this is a preliminary analysis with limited statistical power as a result.

**Conclusion:** in the setting of general practice the mental resilience indicators variance and temporal autocorrelation of negative affect predicted depressive symptomatology after three- months period of treatment with CAU or blended care for depression, conditional on baseline symptoms. These indicators may be used as sensitive early markers for prognosis of patients with depressive symptoms in general practice, for research and practice.

#### **Telephone-Based Cognitive Behavioural Therapy (tel-CBT) for Mild to Moderate Depression – Results of the Randomised-Controlled TIDE-Study**

**Elisa Haller, University of Zürich, Switzerland**

**Thomas Rosemann, University of Zurich, Switzerland**

**Hans-Helmut König & Karl Wegscheider, University Medical Center Hamburg-Eppendorf, Germany**

**Birgit Watzke, University of Zurich, Switzerland**

Cognitive behavioural therapy (CBT) is an evidence-based treatment for depression – however, patient-related factors and an insufficient integration in primary care impedes access to treatment. Telephone-based low-intensity treatments can help overcome barriers by providing a

timely, adequate and accessible therapy with an emphasis on guided self-help. Despite growing usage of the telephone as a treatment delivery medium, the evidence-base of tel-CBT as a stand-alone treatment for mild to moderate depression under clinically representative conditions is fragmentary.

TiDe (telephone-intervention for depression) is a randomised-controlled trial examining the effectiveness and cost-effectiveness of tel-CBT compared to treatment as usual in routine care. Primary and secondary outcomes include symptom change (PHQ-9), response, remission, health-related quality of life (SF-12; EQ-5D-5L), depression-related self-efficacy, and are assessed at baseline, at the end of treatment (t1) and 12 months after baseline (t2). Tel-CBT is a manual-based therapy delivered by licensed therapists and supported by a workbook for patients.

A total of 54 patients were self-referred or recruited by GPs and subsequently randomised to either intervention group (nIG = 29) or control group (nCG = 25). The sample is predominantly female with an average age of 50.4 years (SD = 16.3) and with previous depressive episodes in the majority of the population. Patients received one face-to-face session and on average ten telephone sessions over a period of 4.5 months. Baseline-adjusted one-way ANCOVA revealed a reduction of mean difference of 2.1 on the PHQ-9 between IG and CG post treatment with moderate effect size ( $\eta^2 = .074$ ) without being statistically significant ( $p > .05$ ). In the IG, patients 25% experienced a reliable and clinically significant symptom change compared to 13,9% in the CG. Further clinical and process variables as well as long-term outcomes (t2) will be presented.

The results of the RCT demonstrate a positive impact of Tel-CBT compared to treatment as usual in primary care with moderate effect size in the primary outcome. This result is also supported by the remission and response proportions between IG and CG. However, due to the small sample size the comparison in the primary outcome is not statistically significant. The lack of statistical power underlines the difficulty of patient recruitment in routine care despite a relatively high treatment satisfaction and acceptance amongst patients. Given the findings and the high prevalence of depression in primary care, it is deemed important to improve the integration of accessible, evidence-based depression treatment in primary care. Requirements for a successful implementation of telephone-based low-intensity CBT will be discussed.

### **Does Symptom Severity Matter in Stepped and Collaborative Care for Depression**

**Daniela Heddaeus, University Medical Center Hamburg-Eppendorf, Germany**

**Birgit Watzke, University of Zürich, Switzerland**

**Maya Steinmann, Anne Daubmann, Karl Wegscheider & Martin Härter, University Medical Center Hamburg Eppendorf, Germany**

Background: Stepped and collaborative care models (SCM) are effective for the treatment of depressed patients. Less is known about the effectiveness in subgroups of patients with different depression severity.

Aim: 1) We want to answer the question if there are differences in the effectiveness of a SCM for depression between patient groups with different depression severity degrees at baseline in comparison to patients receiving TAU. 2) We want to explore whether those subgroups received distinct evidence-based treatments as suggested by the SCM.

Methods: This is a subgroup analysis of a randomized controlled trial of a consecutive sample of depressed patients from primary care. We calculated a multiple linear mixed model with group (SCM vs TAU), depression severity (mild-moderate with a PHQ-score at baseline  $<14$  vs. severe with a PHQ-score at baseline  $>14$ ) and their interaction as fixed effects and the general practice care unit as a random effect.

Utilization of different treatments of the two groups is analyzed descriptively.

Results: 737 patients were included (SCM:  $n = 569$  vs. TAU:  $n = 168$ ); data were available for 60% SCM and 64% TAU patients after 12 months. There is a significant interaction for group and depression severity [ $p = 0.018$ ]. With a difference of 3.8 points in the PHQ-9 mildly to moderately depressed patients in the SCM showed significantly more reduced PHQ-9 scores than patients in the TAU [95% confidence interval (CI):  $-5.1$  to  $-2.5$ ,  $p < 0.001$ ; Cohen's  $d = 0.74$ ]. For severely depressed patients the difference between SCM and TAU of 1.5 points symptom reduction is significant with a lower effect size [95% CI:  $-3.0$  to  $-0.02$ ,  $p = 0.047$ ; Cohen's  $d = 0.26$ ]. Patients in TAU more often received inpatient treatments as well as antidepressant medication. However, treatment utilization in the outpatient setting did hardly differ between SCM and TAU for severely depressed patients whereas mildly to moderately depressed patients in SCM receive more depression-specific treatments in the outpatient setting within 12 month in comparison to TAU.

Discussion: Our analysis shows that the effectiveness of a SCM differs for different patient groups in dependence of the initial depression severity. It is important to pay special attention to the group of severely depressed patients which does not receive more depression-specific treatment in SCM than in usual care. Individual case management may improve depression care for severely depressed patients.

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## OPEN PAPERS

### Open Papers 1: Addictions

**Chair: Johannes Lindenmeyer, Medizinische Hochschule Brandenburg & Salus Clinic Lindow, Germany**

#### **Thinking Styles About Nicotine Craving as Predictors of Smoking and Distress in Everyday Contexts: An Ecological Momentary Assessment Study**

**Joshua Magee & Meagan Henry, Miami University, USA**

**Susan McDonald, University of Cincinnati, USA**

**Yu Zhong, Miami University, USA**

##### **Introduction**

People who smoke commonly view nicotine cravings as major obstacles to remaining quit, yet the evidence is weak that cravings themselves undermine abstinence from smoking (Tiffany, Warthen, & Goedecker, 2009). Instead, initial studies have found that assigning negative meanings to cravings predicts a greater likelihood of relapsing after a quit attempt (Nosen & Woody, 2009; 2014). For example, people who blame themselves for a nicotine craving (“This craving is all my fault, I’m worthless”) or see the craving as a reason for hopelessness about quitting (e.g., “This craving is so strong! I’m never going to be able to stop smoking.”) are likely to feel distressed and preoccupied with the craving. Moreover, distress is known to result in heightened accessibility of the craving (Bradley, Garner, Hudson, & Mogg, 2007) and more subsequent smoking (Conklin & Perkins, 2005). In contrast, people ascribing more innocuous meanings to the same craving (e.g., “This craving is stressful, but doesn’t have any meaning about whether my quit attempt will succeed.”) may be unlikely to be at higher risk for relapse. Because they are not thinking about the craving as being particularly meaningful, they may feel little need to attend to and act on the craving, and may not get caught in the vicious cycle. While this model has been supported in preliminary between-subjects experimental studies, no investigations have examined variation in thinking styles about nicotine cravings within individuals. In the current study, we use ecological momentary assessment (EMA) to intensively measure thinking styles about nicotine cravings within individuals’ everyday environments. We examine the link between three thinking styles about nicotine cravings (self-blaming thinking, delaying, and value systems and practices) and individuals’ subsequent smoking behavior and distress. We expect that, within individuals, higher levels of self-blaming thinking about nicotine in particular will demonstrate associations with greater smoking and poorer affect.

##### **Method/Technique**

Our multi-site, interdisciplinary team recruited community individuals who smoke (N = 20, 60% Female; 60% White, 35% Black, 5% Asian; Mean age = 38.0) to complete text message-based assessments five times per day for three weeks (N = 105 total possible measurements per person). Each measurement included items assessing the three thinking styles about cravings, craving, smoking frequency since the prior assessment, and positive and negative affect (Mean measurements ranged from N = 95.1 to 98.0 across items).

##### **Results/Outcome**

We will present multilevel models testing how the three thinking styles about craving are associated with subsequent levels of smoking behavior and affect within individuals.

##### **Discussion/Conclusion**

These data will test particular thinking styles about cravings that may better predict smoking behavior and distress than cravings themselves. Thinking styles about craving may enhance understanding of the craving - relapse link, better contextualize craving within the subjective, daily experiences of people who smoke, and offer potential targets for intervention. Finally, in conjunction with results from several of our related studies, we will describe how these data are being applied in a novel text message-based intervention to prevent smoking relapse.

#### **Experiential Avoidance as a Driving Factor Behind Compulsive Behaviour**

**Lauren Den Ouden, Rico Lee, Jeggan Tiego, Lucy Albertella, Rebecca Segrave & Murat Yücel, Monash University, Australia**

##### **Introduction**

Gambling, eating, checking, shopping, cleaning and drinking alcohol. These are all behaviours which most of us have engaged in regularly at some point in our lives without cause for concern. However, for some individuals these behaviours can develop into addictions, obsessive compulsive disorder or, as they are now collectively referred to, disorders of compulsivity (Fineberg, Menchon, Zohar, & Veltman, 2016). Compulsivity can be defined as repetitive behavioural patterns that occur in characteristic circumstances (Fineberg et al., 2010). Central to compulsive behaviour is the feeling that one ‘has to’ perform the act, despite it conflicting with long-term goals. These behaviours are often engaged in because of their rewarding properties, or to relieve feelings of anxiety or stress (Figue et al., 2015). Transdiagnostic research has shown that psychological traits, such as impulsiveness or intolerance of uncertainty, increase the likelihood of individuals being more compulsive (Chamberlain, Stochl, Redden, & Grant, 2018; Kesby, Maguire, Brownlow, & Grisham, 2017; Kraemer, McLeish, & O’Byrne, 2014; Tolin, Abramowitz, Brigidi, & Foa, 2003). Another psychological phenotype which is yet to be investigated in transdiagnostic compulsivity, is Experiential Avoidance (EA). EA is a common trait seen in individuals who are unable to tolerate uncomfortable thoughts/emotions and take action to avoid them (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). EA is particularly relevant for compulsivity, as behaviours which are vulnerable to excess (e.g. checking, alcohol-use, gambling, shopping, internet-use) provide ideal methods to help individuals escape from uncomfortable internal experiences.

This study aimed to determine under what circumstances EA may be a risk factor for compulsive behavioural problems. Secondary aim was to determine if protective factors, such as social support, can mitigate the need to use compulsive behaviours to cope with distress.

##### **Method/Technique**

Questionnaire responses were collected from a large-scale community-based sample (n = 470; aged 19-48 years, mean age = 30.74 years; 56% male) using Amazon Mechanical Turk. Adapted versions of the Yale-Brown Obsessive-Compulsive Scale were used to measure compulsivity in domains of gambling, eating, harm, checking, contamination, shopping and drinking alcohol. 48.3% of the sample showed clinically meaningful levels of compulsivity. EA was measured by the Multidimensional EA questionnaire (30-item) and psychological distress was measured using State-Trait Anxiety Inventory Y2, Perceived Stress Scale and Warwick Edinburgh Mental Wellbeing scale. Social support was measured using the Interpersonal Support Evaluation List. Results were analysed using structural equation modelling in AMOS.

### **Results/Outcome**

39% of the overall variance in compulsivity could be explained by EA, psychological distress and social support. EA and social support explained 66% of the variance in psychological distress. The relationship between EA and compulsivity was partially mediated by psychological distress. The indirect effect of EA on compulsivity was significant ( $SE = .20$ ,  $p < 0.001$ ), as was the direct effect ( $SE = .15$ ,  $p = .032$ ). Social support had a strong negative indirect effect on compulsivity ( $SE = -.50$ ,  $p < .001$ ) and a positive direct effect ( $SE = .36$ ,  $p = .002$ ).

### **Discussion/Conclusion**

These findings suggest that EA increases the risk of compulsive behavioural problems, particularly when individuals are experiencing heightened psychological distress. In other words, EA encourages maladaptive coping at higher levels of distress, whereby individuals resort to compulsive behaviours as a means of “self-medication”. The availability of positive coping resources, such as social support, can reduce this risk. Treatments which teach individuals to sit with and tolerate uncomfortable emotions, rather than trying to avoid them, will likely be helpful. Talk therapies, including Acceptance and Commitment Therapy, have begun to show utility in this space (Bluett, Homan, Morrison, Levin, & Twohig, 2014; Luoma, Kohlenberg, Hayes, & Fletcher, 2012; Twohig & Crosby, 2010).

## **Cognitive and Behavioural Mediators in Drug Dependency: Implications for an Integrated Cognitive-Behaviour Approach to Treating Drug Abusers**

**Fu Keung Wong & Xiao Yu Zhuang, The University of Hong Kong, Hong Kong**

**Ting Kin Ng, Lingnan University, Hong Kong**

### **Introduction**

Previous studies have mostly focused on the direct effects of psychological factors on drug dependence and overlooked potential cognitive and behavioural mediating processes. This study aims to advance the current literature by examining a serial mediation model in which the association between motivation to change drug use and drug dependence is sequentially mediated by temptation coping skills, abstinence self-efficacy, and negative emotions.

### **Method/Technique**

One hundred and thirty Chinese drug abusers in Hong Kong participated in this study. Structural equation modeling was conducted to analyze the hypothesized serial mediation model.

### **Results/Outcome**

As predicted, two significant specific indirect effects were revealed. First, the specific indirect effect from motivation to change drug use to drug dependence via temptation coping skills, abstinence self-efficacy, and negative emotions was significant. Second, the specific indirect effect from motivation to change drug use to drug dependence via temptation coping skills and abstinence self-efficacy was significant. The direct effects of motivation to change drug use and temptation coping skills on drug dependence were not significant.

### **Discussion/Conclusion**

These findings provide insight into the development of an integrated intervention model that incorporates motivational interviewing, cognitive-behavioral therapy, and emotion regulation training to treat drug abusers.

## **Making Inroads: Randomized Controlled Trial of an Early Intervention to Address co-Occurring Anxiety and Alcohol Use Problems Among Young People**

**Katrina Prior, Lexine Stapinski, Nicola Newton, Mark Deady, Erin Kelly & Maree Teesson, University of New South Wales, Australia**

**Andrew Baillie, University of Sydney, Australia**

### **Introduction**

The transition from adolescence to adulthood is a unique developmental period, characterised by numerous personal and social role changes, and increased opportunities for alcohol consumption. Young people who experience anxiety are particularly susceptible to use alcohol to cope with these symptoms, and progress to an alcohol use disorder. Anxiety and alcohol use tend to fuel each other in an exacerbating feed-forward cycle, leading to chronic problems that are difficult to treat. The peak in onset of anxiety and alcohol disorders is during young adulthood, suggesting this developmental window represents a promising opportunity for early intervention, before these problems become entrenched. This study aims to evaluate the efficacy of the Inroads program, a therapist-supported, internet-delivered early intervention for young adults that targets alcohol use, anxiety symptoms and the interconnections between these problems.

### **Method/Technique**

A randomised controlled trial was conducted nationally across Australia among young adults (aged 17 to 24) who experience anxiety symptoms and drink alcohol at hazardous or harmful levels. Participants were individually randomised on a 1:1 basis to receive the Inroads early intervention, or a control condition involving assessment plus alcohol guidelines and information. Participants randomised to the Inroads intervention received access to 5 online CBT modules and weekly therapist support via email or phone. The primary endpoint for outcome assessment was 8 weeks after baseline, with follow-up assessment 6 months after baseline to determine sustainability of the intervention effects. Primary outcomes were total number of standard drinks consumed in the past month, severity of harms associated with alcohol use assessed by the Brief Young Adult Alcohol Consequences questionnaire, and anxiety symptoms across multiple disorders assessed by the Generalised Anxiety Disorder Questionnaire. Secondary outcomes were alcohol outcome expectancies, functional impairment and quality of life, and symptoms of social anxiety, anxious arousal and depression. Results were analysed by intention to treat using multi-level mixed effects analysis for repeated measures.

### **Results/Outcome**

Preliminary results ( $n=83$ ) suggest the Inroads program is engaging for young people, with 51% completing all 5 modules, and 69% completing at least half the program. Post-intervention data collection will be complete December 2018, and full results will be presented.

### **Discussion/Conclusion**

The study is the first to evaluate the benefits of a youth-focussed early intervention that simultaneously targets anxiety and alcohol use problems. By explicitly addressing the interconnections between anxiety and alcohol use, and enhancing CBT coping skills, the Inroads program has the potential to interrupt the trajectory towards co-occurring anxiety and alcohol use disorders. The online format of the program combined with minimal therapist support via phone/email means that if effective, the program could be widely disseminated to reach young people who are not currently able or willing to access face to face treatment.

## **Additive Effectiveness of Mindfulness Meditation to a School-Based Brief Cognitive-Behavioral Alcohol Intervention for Adolescents**

**Matthew Gullo, Kiri Patton, Jason Connor & Jeanie Sheffield, The University of Queensland, Australia**

**Andrew Wood, University of the Sunshine Coast, Australia**

### **Introduction**

Hazardous alcohol consumption during adolescence is a significant public health issue. Impulsivity is a robust risk factor and it has been proposed that mindfulness-based interventions confer specific benefits for impulse control. This randomized controlled trial is the first study to evaluate the additive efficacy of mindfulness meditation to brief school-based universal Cognitive-Behavioral Therapy (CBT+MM) for adolescent alcohol consumption. Previous studies have lacked strong controls for non-specific effects and treatment mechanisms remain unclear. The present study compared a CBT+MM condition to an active control CBT intervention with Progressive Muscle Relaxation for non-specific effects (CBT+PMR), and an assessment-only control. Potential mechanisms of change were also investigated.

### **Method/Technique**

Cluster sampling was used to recruit 404 Australian adolescents (62% female) aged 13-17 years (Mean age = 14.99 years, SD = .66 years). Classes from 6 high schools were randomized to one of three intervention conditions: CBT+MM (n = 130 adolescents), CBT+PMR (n = 141), assessment-only control (n = 133). Adolescents completed pre-intervention, post-intervention, 3-month and 6-month follow-up assessments of alcohol consumption, mindfulness, impulsivity, and the alcohol-related cognitions of alcohol expectancies and drinking refusal self-efficacy.

### **Results/Outcome**

Multilevel modelling analyses revealed that both CBT intervention conditions reduced the growth of alcohol consumption compared to assessment-only control ( $B = -0.18$ ,  $p = .014$ ). However, CBT+MM was no more effective than CBT+PMR ( $B = -0.06$ ,  $p = .484$ ). Negative alcohol expectancies increased for adolescents in both CBT conditions compared to assessment-only control ( $B = 1.09$ ,  $p = .012$ ), as did positive alcohol expectancies ( $B = 1.30$ ,  $p = .008$ ). There was no effect of either CBT intervention on mindfulness, impulsivity, or drinking refusal self-efficacy. Prospective associations between mindfulness and alcohol use were non-significant or very weak.

### **Discussion/Conclusion**

There was no evidence of mindfulness-specific effects beyond existing effects of CBT within a brief school-based intervention. Hypothesized mechanisms of change were largely unsupported. Findings highlight the need for robust, well-controlled studies of alcohol interventions that are guided by strong theory to elucidate the complex mechanisms of action.

## **Open Papers 2: Older Adults and Dementia**

**Chair: Ian James, Northumberland, Tyne and Wear NHS Foundation Trust, United Kingdom**

### **Risk and Resiliency Factors Related to Dementia Caregiver Mental Health**

**Olivia Altamirano & Amy Weisman de Mamani, University of Miami, USA**

#### **Introduction**

Prevalence rates for dementia are expected to reach 13.8 million people in the United States by the year 2050 (Hebert, Weuve, Scherr, & Evans, 2013) and with this comes a corresponding increase in family members who will become dementia caregivers. Caregivers of people with dementia have been found to experience higher rates of mental illness, including depression (Cuijpers, 2005) and anxiety (Cooper, Balamurali, & Livingston, 2007). In this caregiver/care-recipient familial relationship, it seems important to study family factors as predictors of caregiver mental health. In fact, Zarit, Reever, and Bach-Peterson (1980) found that more family visits to caregivers were related to lower levels of caregiver burden. Better cohesion and communication is also indicative of healthier family functioning, particularly when families face difficulties (Thomas & Olson, 1993). Expressed emotion, a measure of the family environment (criticism, hostility, emotional over-involvement) (Hooley, 2007), has also been found to positively relate to higher burden and more depression among caregivers of comorbid depression and Alzheimer's disease (Wagner, Logsdon, Pearson, & Teri, 1997). Last, as patient symptomology increases (e.g. agitation) caregiver mental health suffers (Fisher et al., 2011). Therefore, the current study explored how family functioning (measured as a latent variable including family cohesion, family balance and family communication), caregiver expressed emotion, and patient symptom severity relate to caregiver mental health (measured as a latent variable including depression, anxiety, and stress), in a comprehensive structural equation model.

#### **Method/Technique**

Participants included a United States, nation-wide sample of 107 dementia caregivers. Moreover, participants were unpaid, live-in caregivers to their relatives. The following specific hypotheses were tested: 1) higher levels of family functioning, 2) lower levels of expressed emotion and 3) lower levels of patient symptom severity would relate to better caregiver mental health. A regression framework was used within a structural equation model.

#### **Results/Outcome**

Using Hu and Bentler's (1990) criteria, goodness of fit statistics supported a well-fitting model:  $\chi^2(18) = 19.07$ ,  $p = .387$ ; CFI = .997; SRMR = .039; RMSEA = .024. Results indicated that family functioning ( $\gamma = -3.56$ , SE = .1.37,  $p < .01$ ), caregiver expressed emotion ( $\beta = .33$ , SE = .07,  $p < .01$ ), and patient symptom severity ( $\beta = -2.75$ , SE = .89,  $p < .01$ ), all significantly predicted caregiver mental health.

#### **Discussion/Conclusion**

As hypothesized, better family functioning and lower levels of expressed emotion were related to better mental health. Contrary to our hypotheses; however, higher patient symptom severity was related to better caregiver mental health. It is possible that when patients are more severely ill they are more docile and exhibit fewer disruptive behaviors, which may have a lesser impact on caregiver mood. Alternatively, patients exhibiting higher symptomology may have been ill longer, therefore caregivers have had more time to adjust to the psychological and emotional burden of caregiving. Psychoeducation for caregivers about characteristic symptoms of dementia may help reduce stress by normalizing caregiving experiences. Moreover, preventive efforts to increase family functioning (e.g. cohesion, communication) and decrease expressed emotion may guard against the observed mental health difficulties experienced by dementia caregivers.



## **Cognitive Behavioural Therapy for Dementia**

**Sunil Bhar, Deborah Koder, Mark Silver, Rebecca Collins, Mulu Woldegiorgis & Jahar Bhowmik, Swinburne University of Technology, Australia**

### **Introduction**

There are 50 million people diagnosed with dementia, and by 2050, 150 million will have dementia. Dementia kills more people in the US than breast cancer and prostate cancer combined. There is no cure for the illness. More than 50% of older adults with dementia have significant levels of depression or anxiety. There is little research on the feasibility and effectiveness of cognitive behavioral therapy (CBT) for improving depression and anxiety in older adults with dementia. This study investigated the feasibility and efficacy of CBT for reducing depression and anxiety in such a population.

### **Method/Technique**

Twenty-one residential aged care settings (nursing homes) were randomly allocated to the intervention (CBT) or control (usual care) condition. CBT was administered as a system wide approach. Program staff delivered (a) CBT to residents with dementia, on a one-on-one, and face-to-face basis, (b) training and support to families, and (c) training to, and consultation with, staff. The sample comprised 133 residents, 65 staff and 73 family members. Residents were eligible for the study if they (a) 65+, (b) had a file diagnosis of dementia, (c) had mild to moderate cognitive impairment, (d) had significant levels of depression (e) spoke English and (f) were well enough to attend research appointments. Staff and family were eligible if they (a) 18+ (b) were nominated as an important source of care for the resident, (c) spoke English and (d) were willing to participate in project activities (e.g., attend training and consultation or support sessions). Outcomes were assessed three times: at baseline, at post treatment (6 months post baseline) and at follow-up (9 months post baseline). Resident levels of depression and anxiety were assessed by the Cornell Scale for Depression in Dementia and the Rating Anxiety in Dementia Scale, respectively. Staff levels of stress were assessed by The Revised Memory and Behavior Problems Checklist. Family burden was assessed by the Zarit Burden Interview.

### **Results/Outcome**

CBT was feasible for residents when customised to take into account cognitive deficits and the care environment. Approximately 80% residents completed treatment, suggesting that residents were able to tolerate the treatment. The efficacy of the treatment is yet to be examined. However, positive outcomes have been observed, and are detailed through a series of case analyses and unsolicited comments from staff and family carers.

### **Discussion/Conclusion**

CBT is feasible, and appears efficacious for dementia when customised to address the population's complex health and neurocognitive profile. Therapists trained in traditional CBT require training to modify their approach to address the complexities of dementia and the residential aged care environment. This study provides clinical guidelines for understanding how CBT can be modified to accommodate such complexities.

## **Therapist Beliefs About Working with Older People: Correlation with Clinical Outcome**

**Ken Laidlaw, University of Exeter, United Kingdom**

**Sarah Bateup & Drew Smithsimmons, Ieso Digital Health, United Kingdom**

### **Introduction**

Therapist beliefs about their ability to be clinically effective have been demonstrated to impact on clinical outcome (Haarhoff, Thwaites & Bennett-Levy 2015 ). In addition, negative stereotypes about aging can impact on therapist efficacy (Levy 2009). CBT therapists have relatively little exposure to specific training in treating older people and yet 18% of the UK population are aged 65 and over. The UK's Improving Access to Psychological Therapy service (IAPT) has developed a positive practice guide to encourage services to ensure that more older people have access to evidenced based psychological interventions for common mental health conditions such as anxiety disorders or depression.

### **Method/Technique**

We asked 500 BABCP accredited CBT therapists to complete an online survey where they were asked to use a visual analogue scale to rate their belief in 10 statements about working with older people. We then correlated the results from the survey with the clinical outcomes of all patients, aged 60 and over that the therapist had treated.

### **Results/Outcome**

We will present the analysis of the data from the 378 BABCP accredited therapists who completed the survey.

### **Discussion/Conclusion**

In the discussion we will explore the implications of these results for the future training needs of CBT therapists.

## **The Effect of Co-Morbid Depression on the Outcomes of Computerised Cognitive Rehabilitation for Older Adults**

**Shannon Webb, The University of Sydney, Australia**

**Alex Bahar-Fuchs & Amit Lampit, The University of Melbourne, Australia**

**Vanessa Loh & Damian Birney, The University of Sydney, Australia**

### **Introduction**

With the aging population, and subsequent increasing prevalence of disease- or age-related cognitive decline in the community, interventions designed to prevent, slow, or reverse deterioration of cognitive and behavioural functioning are being met with great interest. While there is a growing body of evidence for the efficacy of Cognitive Rehabilitation techniques such as computerized cognitive training (CCT), there has been little investigation of the influence of clinical factors (such as co-morbid depression) on the outcomes of such interventions. The lack of research into the influence of mood state is of particular concern when determining the utility of CCT interventions for older adults, as epidemiological research indicates that depression is a significant risk-factor for developing dementia, there is a high co-morbidity rate between depression and Mild Cognitive Impairment (MCI), and this co-morbidity is associated with increased rate and severity of cognitive decline. The present study sought to address this gap in the literature through the experimental investigation of the influence of depressed mood state on the outcomes of an Executives Functions (EF) online CCT program.

### **Method/Technique**

The present study utilized a standardized Mood Induction Procedure (MIP) to experimentally manipulate participant mood-state. In Study 1, non-demented older-adults were recruited to complete three sessions of the EF CCT intervention designed to target updating, shifting, and inhibition EFs. A within-subjects design was utilized, with each participant completing the CCT intervention under the positive-MIP, negative-MIP, and neutral-MIP (which served as the active control) conditions. Session-order was counterbalanced between participants. Participant performance was compared between the three sessions to determine the effect of participant mood-state on EF CCT task performance. Further mood-state tracking analyses were conducted to determine the maintenance of the desired mood-state changes throughout the CCT session. In Study 2, an adaptive-difficulty component was added to the EF CCT study design described above to determine the effect of mood-state on training-gain trajectories.

### **Results/Outcome**

In Study 1, 59 older adults completed the CCT intervention. High adherence and low drop-out rates were observed, which provided strong preliminary evidence for the feasibility of including a MIP component to a CCT intervention. Furthermore, mood-tracking analyses indicated that each MIP (positive, negative, and neutral) had the desired directional impact on participant-mood state. Regarding the effect of mood-state on EF CCT task performance, a facilitative effect of experimentally induced negative mood state was observed for the inhibition, and updating EFs. No significant effect of mood state was returned for the shifting EF task. In Study 2, 42 older-adults have been recruited to date. Results of Study 2 will be discussed with reference to the preliminary findings of Study 1, regarding the effect of mood-state on training-gains (due to the inclusion of adaptive difficulty levels) and development of task mastery.

### **Discussion/Conclusion**

The CCT literature has been limited by significant methodological heterogeneity between studies, and inconsistency in results regarding the efficacy of this class of interventions. Despite epidemiological evidence indicating the importance of considering the impact of co-morbid mood difficulties when addressing cognitive decline in older adults, this has not transferred to CCT research. The present study began to bridge this gap through the development of an experimental series to investigate the influence of mood state on participant's performance on an EF CCT intervention. The results similarly argue for the importance of considering individual differences factors, such as mood, when developing interventions designed to remediate cognitive functioning in older adults. It is hoped that with further improvements to our understanding of the influence of factors such as co-morbid depressed mood in moderating participant's responses to CCT, that future interventions will be better adapted to attenuate or capitalize on these effects for this population most vulnerable to developing clinical dementia, and who are thus most likely to benefit from such interventions.

## **Are Lies Useful Communication Tools in Cognitive Behaviour Therapy? The Notion of the Therapeutic Lie**

**Ian James, Northumberland, Tyne and Wear NHS Foundation Trust, United Kingdom**

### **Introduction**

Recent literature has suggested that lying and deception are common within care settings, particularly in relation to people with Dementia. In dementia care, 96% of care staff admit to lying on a regular basis. A 2-year project undertaken by the Mental Health Foundation (2016) gave cautious support for the use of lies in dementia settings. Guidelines have now been produced to train people to be 'better' liars. The research group who have undertaken the work in dementia are now looking at the use of lies in other settings. This presentation examines this new field of inquiry.

### **Method/Technique**

This paper will summarize a body of research undertaken by my team over 15 years. It will present data from surveys and qualitative studies, which have included the views of people with dementia. Useful taxonomies will be discussed, including the work of a PhD student who is currently observing lies being used in inpatient dementia units. Finally, I will examine questionnaire data from a group of studies looking at lies used in child and intellectual disability settings.

### **Results/Outcome**

Lies are very useful tools in delivering effective care for people with dementia. There is now a growing evidence-base that the notion of the 'therapeutic lie' has wider applicability. It appears to be helpful in situations where there exists a different perception of reality between the client and therapist. At such times therapeutic lies can serve to bridge the reality gap, maintaining collaborative relationships rather than ruptures in alliances. The data from work with child therapists and clinicians working with clients with intellectual disabilities will be discussed.

### **Discussion/Conclusion**

Therapeutic lies are frequently used communication strategies, often employed when our clients do not share the same reality as us (James and Jackman, 2017; Tuckett 2004; Blum, 1994). Their use is complex and controversial, and a number of protocols have been produced to guide their usage (Mental Health Foundation, 2016). This presentation intends to provoke thought, in clinicians working 'in' and outside of the field of dementia. It is particularly relevant for all professional groups, because many explicitly prohibit lies as part of the professional standards (eg. Nursing and Midwifery Council, 2008).

## **Open Papers 3: Mental Imagery**

**Chair: Fritz Renner, University of Freiburg, Germany**

### **Induction of Conditioned Avoidance via Mental Imagery of a Threatening Event**

**Angelos Miltiadis Kryptos, Katholieke Universiteit Leuven and Utrecht University, the Netherlands**

**Arne Leer, Gaëtan Mertens & Iris Engelhard, Utrecht University, the Netherlands**

### **Introduction**

Pathological avoidance is a key diagnostic criterion across mental disorders. Theoretical models argue that such avoidance may be acquired via direct experience, instructions, or social observation. Here, we investigated whether conditioned avoidance towards harmless stimuli can be acquired via mental imagery of a threatening event.

### **Method/Technique**

Participants first learned to associate a neutral stimulus (A+) with the presentation of a shock, and two other neutral stimuli (B-, C-) with shock absence. Afterwards, participants learnt to avoid A+ but not C-. Then, participants were asked to imagine that B- was followed by a shock (Experiment 1; N = 66) or to imagine a shock whenever B- was presented on screen (Experiment 2; N = 60).

### **Results/Outcome**

Results showed that when participants were finally presented with unreinforced presentations of B, they displayed avoidance behavior if they had been instructed to imagine that this stimulus was followed by a shock (Experiment 1) but not when they just had to think of a shock whenever encountering B- (Experiment 2).

### **Discussion/Conclusion**

We discuss the theoretical ramifications of our results regarding their relevance to conditioning theory. We also discuss how our findings could explain the acquisition of pathological avoidance.

## **Enhancing Episodic Future Thinking in Clinical Depression**

**David Hallford & David Austin, Deakin University, Australia**

**Manoj Sharma, National Institute of Mental Health and Neurosciences, Australia**

### **Introduction**

Depressed individuals have difficulty anticipating pleasure from future events, which may impact anticipatory pleasure and functioning, and maintain disorder. One factor in this may be impairments in the specificity and detail in their episodic future thinking (EFT). The presented studies identify links between EFT and anticipatory pleasure, demonstrate how anticipatory pleasure might be increased through enhancing EFT, and indicate ways to improve the specificity of cognitive-behavioural treatments.

### **Method/Technique**

Study one was a cross-sectional study comparing depressed ( $N = 117$ ) and non-depressed ( $N = 47$ ) samples on characteristics of EFT and anticipatory pleasure for nominated upcoming positive events. Study two was a randomized start-point single-case series design ( $N = 8$ ) of an intervention to enhance EFT, with a primary outcome of anticipatory pleasure for positive daily events. In Phase A participants completed surveys throughout the day over two weeks to nominate upcoming positive events and rate EFT characteristics and anticipated pleasure. In Phase B enhanced EFT activities were introduced.

### **Results/Outcome**

In Study one, relative to non-depressed, the depressed sample was found to have less specific and detailed EFT, use less mental imagery, perceived positive future events as less plausible, and reported less anticipatory pleasure for them. In the depressed sample, EFT detail, use of mental imagery, and the personal significance of the future event predicted the anticipatory pleasure associated with the positive future event. In Study two, when enhanced EFT activities were introduced in Phase A, the sample reported large, significant increases in detail and imagery in EFT, and large increases in anticipation of how pleasurable the events would be.

### **Discussion/Conclusion**

The findings provide evidence that depressed individuals have impairments in some characteristics of EFT, and that these are predictive of less anticipatory pleasure for positive events. It also indicates that enhancing EFT may be a mechanism with which to increase anticipatory pleasure in depression. These findings have implications for improving the specificity of treatment by enhancing detail, and use of imagery to improve anticipatory pleasure for rewarding behaviours in depressed individuals.

## **Imagery Rescripting as Transdiagnostic Intervention – a Case Series**

**Antje Krüger-Gottschalk, Tanja Andor & Nexhmedin Morina, Westfälische Wilhelms-Universität, Germany**

### **Introduction**

Aversive intrusive memories are often reported across different disorders (Brewin et al., 2010). Especially in posttraumatic stress disorder (PTSD) intrusions are one of the core symptoms and are usually the focus of evidence based treatment approaches. In disorders other than PTSD, aversive autobiographical intrusions are often reported but usually not the main focus of treatment. However there is growing support that the treatment of aversive autobiographical memories with imagery rescripting (ImRs) leads to general symptom reduction across disorders (see e.g. Morina et al., 2017). These findings might lead to the hypotheses that ImRs as a treatment for negative autobiographical intrusive memories could work as a transdiagnostic intervention and might address core mechanisms to reduce general psychopathology. The aim of our study was to test the efficacy of ImRs across disorders and to gain a better understanding of the underlying mechanisms of change.

### **Method/Technique**

In a case series with a randomized waiting period (six to twelve weeks) we offered ImRs for ten sessions as a stand-alone treatment across different disorders. Participants were included when they reported distress because of autobiographical negative intrusions, and when they fulfilled at least one axis-I diagnosis except for substance use disorder, psychosis, bipolar disorder,  $BMI < 17.5$ , acute suicidality. Assessments were conducted pre-treatment, after the waiting period, post-treatment, at four weeks, and twelve weeks post treatment. Primary outcome measures were the SCID-I and an intrusion interview, secondary outcome measures included depression scores, general psychopathology, general anxiety, emotion regulation, and a quality of life measure.

### **Results/Outcome**

We will present preliminary pre-post-four weeks follow up data of ten participants and will show the individual symptom course of each participant during treatment. The general effect sizes and the reliable change index for each participant will be presented.

### **Discussion/Conclusion**

We will discuss the findings with regard to possible mechanisms of change, compare them with results of other studies and discuss implications for further research.

## **Imagery Rescripting as an Adjunct to Cognitive Behaviour Therapy for Social Anxiety Disorder**

**Alice Norton, Adam Guastella, Katie Dobinson & Maree Abbott, The University of Sydney, Australia**

### **Introduction**

Imagery rescripting (IR) aims to alter negative meanings associated with memories of distressing experiences, and has recently demonstrated promising results in the treatment of Social Anxiety Disorder (SAD) (e.g., Norton & Abbott, 2016). However, studies of IR for SAD are preliminary and the adjunct benefits of IR to standard Cognitive Behavioural Therapy (CBT) are unknown. Hence, the current research investigated the additive benefit of IR to group CBT for SAD.

### **Method/Technique**

This pilot study included SAD individuals (N = 8) who completed an 8 weeks of standard group CBT specific to SAD. Subsequently, they completed 2 sessions of IR, aiming to shift core beliefs embedded in socially aversive memories. Participants completed measures of symptomatology, affect and cognition in relation to these interventions.

### **Results/Outcome**

Consistent with previous studies (e.g., Rapee & Abbott, 2009), participants reported significant reductions in social anxiety symptoms following group CBT. Importantly, participants reported additive reductions in depression and anxiety symptoms as a result of the IR sessions. Furthermore, following the IR intervention, participants reported reductions in vividness of their negative self-imagery, emotional intensity and shame associated with the aversive memory, as well as the strength of core beliefs associated with the memory.

### **Discussion/Conclusion**

Findings provide support for the benefits of IR as an adjunct to CBT in the treatment of SAD as it targets both aetiological and maintaining factors. IR as an additive to standard CBT for SAD appears beneficial for improving anxiety and depression symptoms, as well as addressing underlying core beliefs and associated distressing memories. It is noteworthy that the IR intervention reduced depressive symptoms as depression is commonly comorbid with SAD and SAD patients who are also depressed tend to have poorer outcomes. We suggest that this finding may be due to the common underlying negative beliefs and experiences that drive both depression and social anxiety. Therefore, outcomes provide preliminary evidence that IR may reduce comorbid depression symptoms in SAD, improve outcomes for those with both disorders, and potentially prevent onset of depression among SAD patients. Practical implications of these findings and future research avenues will be further explored.

## **The Blind Mind's Eye and Emotion: Are Thoughts Less Distressing with Aphantasia?**

**Marcus Wicken, Rebecca Keogh & Joel Pearson, University of New South Wales, Australia**

### **Introduction**

Visual mental imagery is the capacity to think in pictures, to “see with the mind’s eye”. One proposed function of imagery is to amplify the emotional impact of thinking by lending a sensory, ‘as-if-real’ quality to otherwise verbally-based processing of thought content such as memories, fears, worries, and so on (Holmes & Mathews, 2010). The existing evidence for this proposition relies on subjective self-report data and assumes good metacognition and control of imagery itself. Here we more objectively test for imagery’s unique contribution to emotional responses by comparing people who use imagery with people who cannot - a knock-out model of imageless cognition. Our imagery knock-out model is a newly documented special population of individuals born without visual mental imagery, a condition called Congenital Aphantasia (Zeman, Dewar, & Della Sala, 2015).

### **Method/Technique**

We first sought to objectively verify the absence of visual mental imagery in our self-identified aphantasic participants using a documented psychophysical paradigm that measures the sensory strength of an individuals’ visual mental imagery by way of imagery’s impact on perception in binocular rivalry (Pearson et al., 2008; Sherwood et al., 2011; Keogh & Pearson, 2011; 2014; 2017). Next, verified aphantasic and non-aphantasic (normal imagery) control participants read a series of frightening fictitious scenarios, intended to invoke vivid imagery, while we continuously recorded their skin conductance level, an objective measure of fear response. Additionally, to control for a general skin conductance difference between the groups, we also recorded their skin conductance level while they viewed frightening perceptual material (IAPS photographs).

### **Results/Outcome**

In response to viewing the frightening photographs, both groups experienced monotonic increases in skin conductance level, suggesting an equivalent fear response. By contrast, in response to reading the frightening fictitious scenarios, control participants’ skin conductance level monotonically rose while the aphantasic skin conductance level remained relatively unchanged, suggesting significantly less fear response. Together, these results suggest the emotional response to reading fictitious scenarios is contingent on intact visual mental imagery.

### **Discussion/Conclusion**

These results add novel and strong support to the theory that mental imagery holds a special and strong relationship with emotional reactions to thoughts, underpinning imagery’s pivotal role in psychological disorders and their treatment. It also forms the basis for ongoing research into the psychological implications of being aphantasic, including whether aphantasia might engender a level of resilience to imagery-linked disorders such as PTSD and Social Anxiety Disorder.

## **Open Papers 4: Cultural Adaptations**

**Chair: Andrew Beck, University of Manchester, United Kingdom**

### **The Development of a Culturally Informed, Religiously-Based, Cognitive-Behavioral Mental Health Treatment Offered in Religious Institutions and Other Community Settings**

**Amy Weisman de Mamani, Olivia Altaminrano, Daisy Lopez & Merranda McLaughlin, University of Miami, USA**

#### **Introduction**

The majority of existing psychological treatments for mental health issues do not focus on religious, collectivistic (defined as having a greater perception of oneself as highly inter-connected with others), and other sociocultural values. Yet approximately 90% of United States Americans report believing in God and 53% report that religion is very important in their lives (Carlson & Gonzales-Prendes, 2016). Furthermore, the demographics of the United States are changing rapidly. In our home city of Miami, for example, 70% of the population identifies as Hispanic, Black, or another ethnic minority. Ethnic minorities may hold different beliefs and values than the mainstream researchers that develop widely used cognitive-behavioral interventions.

#### **Method/Technique**

In this project, we will examine whether an already established, religiously-integrated, cognitive-behavioral treatment will be effective in treating a wide range of individuals with commonly existing mental health problems. The treatment will be offered in group format and is called Culturally Informed Therapy (CIT). During CIT, therapists use structured exercises and techniques to extract beliefs, behaviors, metaphors, scriptures, and traditions from participants’ own ethnic, cultural, and religious backgrounds and use these to help them cope with their mental health issues.

### **Results/Outcome**

CIT has already been tested in single family and group formats in people with schizophrenia and their family members. Results from these studies indicated that CIT reduced patient symptom severity in both the single family (Weisman de Mamani et al., 2014) and group formats (Maura & Weisman de Mamani, 2018), and also decreased the amount of caregiver burden that family members experienced (Weisman de Mamani & Suro, 2016). In this talk, the PI will present the results of prior studies using CIT-S and will then lay out the rationale and the plan to further improve the treatment by better integrating religion and increasing collaboration among psychologists and religious clergy to better serve pious clients. She will summarize participants' feedback on the intervention and will present preliminary data resulting from the first cycle of therapy.

### **Discussion/Conclusion**

This approach to intervention is expected to result in improvement in participants' functioning across a range of symptoms and disorders and is expected to result in high degrees of therapy retention. Our current efforts to begin offering the intervention in a mosque, a synagogue and other local community setting will be discussed.

## **Credibility Perception and Treatment Expectations: Relationship with Cognitive Behaviour Therapy Outcome in Indian Context**

**Susmita Halder & Akash Mahato, Amity University, India**

### **Introduction**

Psychotherapy is no more an alien concept in Asian countries. Different forms of psychotherapy are being used by practicing psychologists. However, the clinical population in countries like India are inclined to conventional pharmacological form of treatment may be skeptical and take time to include psychotherapy as one of the treatment modalities for its concerns. Client's perception regarding credibility and expectations regarding psychotherapy can arguably impact the outcome of the psychotherapy process. The present study examines the credibility perception and treatment expectations of clients undergoing Cognitive Behaviour Therapy (CBT) and its relationship with therapeutic outcome.

### **Method/Technique**

50 clients of both sexes, diagnosed with mood and anxiety spectrum disorders and referred for psychotherapeutic intervention and suitable for Cognitive behaviour therapy were assessed for their credibility perception and treatment expectations. The average number of sessions was 16, ranging from 12-23. Pre and post assessment included The Credibility Scale (CS), Semi structured interviews, self reporting and objective rating of symptoms.

### **Results/Outcome**

Findings suggest that credibility perception of clients had significant relation with their CBT outcome. Pre and post symptom ratings of clients with higher credibility perception and expectation from CBT had significant difference with those who doubted or had less expectation. Poor credibility perception was related with poor session compliance and dropout.

### **Discussion/Conclusion**

High credibility perception and expectations are indicators for better therapeutic outcome. In clinical population in Asian countries, especially India, which is more inclined towards pharmacological interventions; credibility perception can be assessed as standard practice before start of CBT sessions. As required, a session on psychoeducation can be included.

## **Chinese Translation of Cognitive Distortions and Its Relationship with Depressive and Anxiety Symptoms**

**Vivian Min Ni Wong & Alvin Lai Oon Ng\*, Sunway University, Malaysia**

### **Introduction**

Cognitive distortions have been found to correlate with depression and anxiety symptoms. As such, they are addressed in cognitive therapies to reduce psychopathological symptoms. While cognitive therapy has been increasingly used in Chinese, it is not usually known if cognitive distortions in Chinese have the same effects on emotion in the Chinese-speaking communities in Malaysia. This would have implications on cognitive therapies carried out in the Chinese language in Malaysia. This study investigate the relationship between cognitive distortions, anxiety and depressive symptoms among a sample of Malaysian Chinese population.

### **Method/Technique**

A total of 281 participants (91 males and 190 females) sampled from East and West Malaysia participated in this survey study. The Cognitive Distortions Scale (CDS), Patient Health Questionnaire (PHQ-4), and Chinese Depressive Symptom Scale (CDS) were used to measure participants' thinking style, anxiety and depressive symptoms, respectively. All scales were translated into Mandarin.

### **Results/Outcome**

Cognitive distortions in Chinese were significantly correlated with depressive and anxiety symptoms, where high numbers of cognitive distortions were associated with higher severity of depressive and anxiety symptoms. There were also implications of age, gender and geographical location on depressive and anxiety symptoms among the participants, where younger, female and the urban dweller were found to have higher likelihood of depressive and anxiety symptoms.

### **Discussion/Conclusion**

The effect of cognitive distortions on depressive and anxiety symptoms among the ethnic Chinese community in Malaysia seems comparable with Western studies. Implications include the suitability of cognitive therapies within the Chinese community in addressing mental health issues. Larger samples would provide better representation. Further studies into qualitative aspects of would also provide insights into therapeutic mechanisms of cognitive therapies in this section of the Malaysian population.

## **Cognitive Behavioural Intervention to Promote Chinese International Students' Mental Health and Quality of Life in Hong Kong: A Wait-List Control Design**

**Qiuyuan Xie & Daniel Fu Keung Wong, The University of Hong Kong, Hong Kong**

### **Introduction**

Studying abroad can be a stressful experience and potentially exerts detrimental effect on students' mental health (Forbes-Mewett & Sawyer, 2016). While some theories such as acculturation theory (Berry, 2001) and attachment theory (Van Oudenhoven & Hofstra, 2006) have provided plausible explanations on immigrants' behaviours and psychological responses after migration, cognitive behavioural theory provides a different perspective on the possible causes of their negative mental health outcomes. According to Beck's theory, psychological

distress is a result of negative interpretations of life events (Beck, Rush, Shaw, & Emery, 1979). Psychologically disturbed individuals are characterized by the possession of a greater amount of cognitive biases (i.e. negative automatic thoughts) derived from their dysfunctional schemas (Beck, 2011). Such negative interpretation of events may lead to maladaptive coping behaviours which, in turn, may affect people's interactions with others. In migrating to a new society, it is not uncommon for immigrants to face a series of potentially negative experiences such as loss of friends, changing lifestyles and communication barriers, which may trigger dysfunctional thoughts and beliefs. The negative interpretation of these circumstances could increase maladaptive coping methods such as avoidance of social contacts and could also lead to anxiety problems and depression (Tewary, Jani, & Anstadt, 2012).

This study adopts a cognitive behavioural perspective in understanding the migration experiences of international students from China to Hong Kong. The focus of our psychological intervention is not on students' communications skills or acquisition of new languages, but on changing their maladaptive cognitions and behaviours relating to their postmigration lives. There are very few studies that have been conducted to examine the effectiveness of CBI on international students. This study aims to test the effectiveness of a culturally attuned cognitive behavioural intervention (CBI) in promoting mental health and quality of life (QOL) among Chinese international students in Hong Kong.

#### **Method/Technique**

A wait-list control designed was adopted. 65 Chinese international students in a university in Hong Kong were assigned to experimental groups and control groups. The intervention consisted of eight 3-hour weekly sessions. All the participants were assessed pre-intervention, post-intervention and at 3-month follow-up.

#### **Results/Outcome**

Participants in the experimental group showed a significant and continuous increase in mental health and overall QOL compared to those in the control group. Changes of dysfunctional attitudes mediated the effect of CBI on mental health and QOL.

#### **Discussion/Conclusion**

The current culturally attuned CBI may be useful in improving mental health and quality of life (QOL) among Chinese international students in Hong Kong. Changes in dysfunctional attitudes was found to mediate CBI and participants' psychological wellbeing. Existing research suggests that dysfunctional attitude is a mediator for change in CBT (Chu & Harrison, 2007). The current CBI focused on exploring students' rigid expectations towards self, others and the world underlying the automatic thoughts and elicited discussions over the positive and negative impacts they had on their life in order to increase students' cognitive flexibility under stressful circumstances and have the enhanced capacity to solve the problems. As a result, their psychological wellbeing can be improved.

### **Imagery Focused Cognitive Behavioral Therapy: An Exploration of the Cultural Adaptation of Cognitive Behavioral Therapy in China**

**Fahui Yang, Beijing Normal University, China**

**Keith Dobson, University of Calgary, Canada**

**Zhiyong Qu, Beijing Normal University, China**

**Le Qi, City University of Macau, China**

**Yin Gao, Otto-Von-Guericke Universität, China**

**Jiaqi Yuan, Beijing Normal University, China**

#### **Introduction**

Over the past decade, cognitive behavioral therapy (CBT) has become an increasingly popular therapy in China. There is now evidence for the overall efficacy of cognitive behavioral therapy for Chinese people and the benefit of cultural adaptation of cognitive behavioral therapy to Chinese culture by a meta-analysis (Ting & Daniel, 2017). Therefore, we predicted that culturally adapted CBT for Chinese rural depression people would be more effective.

#### **Method/Technique**

We investigated the effects of cognitive behavioral therapy for rural people in Sichuan Mianzhu, China. For this study, 51 mild-to-moderate cases of depression were selected from 724 older males, with 24 cases assigned to an intervention group and 27 cases as a control group. After 8 weeks of CBT, a statistical analysis was used to examine possible differences between the two groups, and qualitative interviews.

#### **Results/Outcome**

Analyses using SPSS version 23.0 revealed that the chi-square value for outcome was 3.172 (1),  $p = 0.075$ ,  $F(1/40) = 0.95$ , which was a marginally nonsignificant difference between cognitive behavioral therapy intervention and non-intervention. Qualitative interviews with 8 rural doctors and 11 patients suggested that cognitive behavioral therapy had some effects, but that clinical recovery was not achieved in some cases due to intrusive negative imagery, some misunderstanding of cognitive behavioral therapy, body disease, and economic and practical difficulties, among other issues. Therefore, the study supported the need for cultural adaptation, including research about Chinese cognitive and behavior methods, and more effective cognitive and behavioral therapy strategies for use in China. A focus on imagery and analytical psychology was considered an important perspective in this process.

We began the process of developing an imagery focused cognitive behavioral therapy (IFCBT) model. A literature review and set of expert interviews indicated that imagery was a key construct for use in Chinese cognitive behavioral therapy. Thus, if cognitive behavioral therapy is considered as Tai Chi's Yang, analytical psychology is Tai Chi's Yin, then the understanding, transformation and transcendence of these two opposites in the great circle of Chinese culture can yield a third integration, which is the IFCBT model.

#### **Discussion/Conclusion**

IFCBT is based on a warm, empathic, understanding, and professional relationship, in which the therapist expresses concern for the client's emotions and body feelings. In this relationship, the therapist guides and focuses on thoughts and imagery, allows images to express themselves, objectifies imagery and its expression, to produce a more coordinated, insightful and integrated existence between conscious and unconscious experience. Then, the therapist works to help the client more fully integrate insight and behavior, the unity of inner and outer world, unity of body and psyche, and unity of nature and humanity. The model has seven steps: identification of images, making meaning of imagery, adjusting imagery, going deeper into imagery, embracing and experiencing imagery, realizing and objectifying of imagery, and transferring imagery into practice.

Several cases were used to test the effects of IFCBT. The first case showed that the client's subjective depression was resolved after seven weeks of IFCBT. Their self-rated depression declined from 4 to 2 points and their Beck Depression Inventory- II (BDI - II) scores declined from 19 to 1 point. The client's imagery also transformed from being a "black dog" and "unkempt paralysis sitting in a messy room woman", into "the girl who smells the flowers in the garden, swing swings, bathed in sunshine" and "renew find pure land in heart". Subjective

depression in the second case declined from 7 to 3 points, while scores on the Beck Depression Inventory - II (BDI - II) declined from 24 to 8 points. This client's imagery transformed from "the demontors", "no mother crocodile orphan" and "the black monsters in empty well" into "the thin rod breaks unreal monsters", "a girl who integrates rational and emotional", "although a rose has thorns, it is because it is rose". Overall, the results strongly suggested that the model had significant curative effects for depression. In summary, this project investigated the preliminary Sinicization of cognitive behavioral therapy through a focus on imagery. In doing so, it brought new theoretical and methodological insights to the application of cognitive behavioral therapy in China.

## **Open Papers 5: Behavioural Medicine**

**Chair: Jo Daniels, University of Bath, United Kingdom**

### **Further Validation of the Non-Avoidant Pacing Scale and the Role of Pacing in Mediating Chronic Pain Treatment Outcomes**

**Renata Hadzic & Louise Sharpe, University of Sydney, Australia**

**Michael Nicholas & Brad Wood, Royal North Shore Hospital and University of Sydney, Australia**

#### **Introduction**

Biopsychosocial models highlight the significant impairments in physical and psychological functioning that are often characteristic of chronic pain. These models have been influential in the development of interdisciplinary cognitive-behavioural treatment programs that focus on physical and psychological functioning as key outcomes.

Activity pacing, as based on operant strategies, has emerged as a key component of many such programs. However, despite widespread use, pacing has been associated with higher levels of pain and disability. One possible account for these findings may be overlap between avoidance, which has been consistently associated with poorer outcomes in chronic pain, and existing measures of pacing.

#### **Method/Technique**

To explore this potential explanation, we conducted three studies.

#### **Results/Outcome**

Firstly, we conducted a meta-analysis of 16 studies that showed that existing measures of pacing were positively correlated with avoidance, as predicted ( $r = .29, p < .001$ ), particularly in the subset of 9 studies that used multiple-item measures ( $r = .41, p < .001$ ).

Secondly, we developed a novel measure that aimed to adequately differentiate pacing from avoidance. The Non-Avoidant Pacing Scale (NAPS) was validated in a large sample of community-recruited adults with chronic pain ( $n = 283$ ). Results revealed an internally consistent scale ( $\alpha = 0.82$ ) consisting of two four-item factors: Planned Pacing Behaviours and Non-Avoidant Activity ( $CFI = .97, SRMR = .05$ ). The NAPS was not positively correlated with avoidance. Further, pacing as measured by the NAPS, was associated with lower levels of depression ( $r = -.19, p < .01$ ) and catastrophising ( $r = -.23, p < .001$ ) and higher self-efficacy ( $r = .27, p < .001$ ).

We also found associations between pacing and improved outcomes at three-month follow up ( $n = 203$ ) in individuals with higher levels of pain at baseline. Namely, reductions in interference due to pain ( $\beta = -.09, SE = .04, p = .023$ ), psychological distress ( $\beta = -1.32, SE = .48, p < .01$ ), and catastrophising ( $\beta = -.66, SE = .25, p < .01$ ), and an increase in self-efficacy ( $\beta = .05, SE = .28, p < .001$ ).

In the final study, we are conducting revalidation of the NAPS in a treatment-seeking sample of patients with chronic pain, which is on-going ( $n = 200$ ). Preliminary results from a confirmatory factor analysis ( $n = 62$ ) indicate that the NAPS is internally consistent ( $\alpha = .86$ ) and conforms to the previously identified two-factor structure ( $CFI = .95, SRMR = .07$ ).

We will also present data on the sensitivity of the NAPS in the context of an interdisciplinary CBT-based chronic pain management program ( $n = 80$ ), and report on whether changes in pacing over the course of treatment predict outcomes one month later.

#### **Discussion/Conclusion**

These results suggest that pacing, as based on operant strategies, is an important construct in interdisciplinary CBT-based management of chronic pain. They also indicate that the NAPS is a reliable, valid method of measuring pacing in this context, without the artefact of avoidance.

### **CFS/ME and Co-Morbid Health Anxiety: A Treatment Case Series**

**Jo Daniels, University of Bath, United Kingdom**

**Paul Salkovskis, University of Oxford, United Kingdom**

**Hannah Parker, University of Bath, United Kingdom**

#### **Introduction**

Chronic Fatigue Syndrome (CFS) is a debilitating condition that affects 0.2–0.4% of the population. First-line treatments are Cognitive Behaviour Therapy or graded exercise therapy; however, these treatments yield only moderate effect sizes. Emerging research suggests that anxiety about health is common in CFS/ME, with estimates in the region of 42%. Health anxiety treatment models demonstrate good therapeutic outcomes; however, these models have yet to be applied to CFS/ME. This paper describes the application of a novel cognitive behavioural approach to the treatment of both physical and anxiety related symptoms in CFS/ME.

#### **Method/Technique**

A consecutive case-series ( $N=10$ ) with phased AB design was used to test the utility and effectiveness of this treatment model in adults with CFS/ME. Following 6 week baseline to establish stability of presentation, the treatment intervention consisted of twelve 60 minute sessions of standard cognitive behavioural therapy (CBT) for health anxiety, with psychoeducation phase adapted to include current theories of CFS/ME. Measures included the Health Anxiety Inventory (HAI), Chalder Fatigue Scale, SF-36 for physical functioning, Hospital Anxiety and Depression Scale (HADS) plus measures of quality of life.

#### **Results/Outcome**

Eight participants completed therapy (80%,  $n=8$ ). All completers demonstrated reliable change (RC) and clinically significant change (CSC) in at least one area. Calculations reflect that 75% achieved RC and 88% CSC on the Chalder Fatigue Scale; 100% of treatment completers achieved both RC and CSC on the HAI; 63% and 88% achieved RC and CSC on the HADS-A respectively; HADS-D changes reflected less favourably with 38% and 75% RC and CSC respectively.

All participants moved from case to non-case status on the HAI. All cases demonstrated improvement on measures of physical functioning, with 75% achieving CSC. Scores on the EQ-5D for quality of life improved for 88% ( $N=7$ ) with one participant reporting the same score. Using Cohen's D, calculation of effect sizes indicated large effect sizes ( $>0.8$ ) across all measures used.

## **Discussion/Conclusion**

This study offers a firm and robust basis for a further larger scale treatment trial. Attrition of 20% and 100% rate of improvement in health anxiety in CFS/ME indicates acceptability of the intervention; of those eligible to participate (n=23) only one participant rejected the term 'health anxiety', with the remaining indicating CBT for health anxiety and comorbid CFS/ME as a credible basis for psychological intervention. Despite the complex symptomatic presentation of CFS/ME and health anxiety co-occurring, the intervention was unproblematic and largely protocol driven.

## **Guided Cognitive Behavioral Therapy-Based Internet Intervention (iSOMA) for Somatoform Symptoms: Participant Characteristics and Results of a Randomized Controlled Trial in University Students**

**Katja Böhme & Severin Hennemann, University of Mainz, Germany**

**Harald Baumeister & Eileen Bendig, University of Ulm, Germany**

**Maria Kleinstäuber, University of Auckland, New Zealand**

**David Daniel Ebert, University Erlangen-Nuremberg, Germany**

**Michael Witthöft, University of Mainz, Germany**

### **Introduction**

Somatoform disorders are among the most prevalent mental disorders in Europe (Olesen et al., 2012) and show surprisingly high prevalence rates among students, ranking them the second most common mental disorder (6.6%; Grobe & Steinmann, 2015). At the same time, individuals rarely access existing psychosocial support (Auerbach et al., 2016). Thus, low-threshold instruments such as Internet and mobile-based interventions (IMIs) may be promising extensions. In this RCT, the efficacy of a newly developed, web-based CBT intervention (iSOMA) for somatoform symptoms and related distress is investigated in German-speaking university students.

### **Method/Technique**

The study (registration: DRKS00014375) is embedded in the European health platform "StudiCare". In a two-armed RCT, the eight week guided intervention (n = 77) with regular written therapist feedback is compared to a waitlist control group (n = 77), which afterwards receives iSOMA with guidance on demand. The transdiagnostic intervention consists of seven consecutive modules. Main inclusion criterion are self-reported distressing somatic symptoms. Data collection takes place before and after the intervention, respectively the waiting period (8 weeks) and 16 weeks post-randomization. Primary outcome is somatic symptom distress (PHQ-15, SSD-12). Secondary outcomes include depression, (illness-) anxiety, disability, and attitudes towards psychotherapy. Possible effect-modulating variables (e.g. emotional reactivity, therapeutic alliance) as well as subjective side effects are explored.

### **Results/Outcome**

Current baseline data (n = 51) show that participants are predominantly female (86.3%), on average 24.78 years old (SD = 5.36) and report moderate levels of somatic symptom distress (PHQ-15, M = 11.16, SD = 3.99) that last on average for 3.56 (SD = 4.207) years. Two third indicate regular use of analgesics (67.4%), about one third gastrointestinal pharmaceuticals (30.6%) or homeopathic supplements (38.8%). In addition, participants show mild to moderate comorbid depressive (PHQ-9, M = 9.24, SD = 4.79) and anxiety symptoms (GAD-7, M = 7.08, SD = 4.50). Although the attitude towards seeking professional help can be considered positive (ATSPPH-SF, M = 23.73 SD = 6.32, score range 0-30), only one out of four participants utilize psychosocial care. Further results for the primary endpoint as well as completer and non-completer analysis will be presented for the first time internationally at this conference.

### **Discussion/Conclusion**

The study is the first of its kind including a broader spectrum of mono- and polysymptomatic somatoform symptoms in university students. Hitherto, participant characteristics suggest that the trial reaches a somatic and mentally distressed and at the same time undertreated target group. Attitudes towards psychotherapy are elevated, compared to previous unselected student samples (Elhai et al., 2008). Demographic characteristics seem comparable to similar trials in student populations (Harrer et al., 2018). Since somatoform disorders are common in this group, the results have important implications for the prevention and treatment of psychosomatic conditions in the academic context and beyond.

## **Therapeutic Effects of a Group Cognitive-Behavioral Intervention for Self-Management of Fibromyalgia**

**Lizet F. Jammet, Christian Guy-Coichard & Sylvie Rostaing, Saint Antoine University Hospital, France**

**Colette Aguerre, François Rabelais University, France**

**Françoise Laroche, Saint Antoine University Hospital, France**

### **Introduction**

Clinical studies (Busch & al, 2008; Hauser & al, 2009; Thieme & Gracely, 2009) have shown the effectiveness of Cognitive and Behavioral Therapies (CBT) for Fibromyalgia (FM). CBT are also recommended by the European League Against Rheumatism (EULAR) (Carville, 2007; Macfarlane & al, 2016). FM is a chronic condition characterized by diffuse pain, tender points, sleep disruption, fatigue and comorbidity with depression, anxiety disorders as well as other pain syndromes (Goldenberg, 2008). American College of Rheumatology (ACR) issued diagnostic criteria (Wolfe & al, 1990). The purpose of this study was to assess longitudinally the efficacy of a group Cognitive-Behavioral program for self-management in fibromyalgia patients from Saint Antoine Hospital Pain Center (CETD).

### **Method/Technique**

This study included 112 fibromyalgia outpatients, aged 23 to 66, randomized in treatment group with CBT "GTCC arm" (8 weekly 2 hours' CBT sessions, including 5 to 9 patients) and in reference group "GTEM arm" (one 2 hours' therapeutic education session, 5 to 9 patients and usual treatment) with one year follow up. All patients were administered a socio-demographic data questionnaire and checked against inclusion/exclusion criteria. CBT program goals are to help patients to increase their quality of life by promoting their ability to better self-manage and cope with pain and their emotional distress. It included three components: psycho-educative, behavioral and cognitive-emotional.

Clinical outcomes were evaluated at baseline (T0) and during follow-up at 3 months (T1), 6 months (T2) and 12 months (T3) after treatment. Pain intensity scale (VAS), emotional distress inventories (STAI-Y-A/B, BDI), health status (SF36), quality of life (FIQ), catastrophizing scale (CSQ) and motivation to change (PSOCQ), were evaluated. Statistical analyses were performed at two levels. First, descriptive statistic; second, a paired-sample "t test" was used to examine intra GTCC group change (from T0 to T1, T2 and T3). Cohen's d effect size was calculated.



## Results/Outcome

The findings show the demographic and clinical characteristics of FM patients were consistent with other studies. Significantly more women than men were represented. Otherwise, for GTCC arm, results at 12 months show significant improvement in: FM impact on quality of life ( $t=3.60$ ,  $p<.01$ ,  $d=.95$ ), health status ( $t=-3.35$ ,  $p<.01$ ,  $d=-.76$ ), and catastrophizing ( $t=3.22$ ,  $p<.01$ ,  $d=.52$ ), average pain intensity ( $t=3.12$ ,  $p<.01$ ,  $d=.47$ ), level of anxiety ( $t=2.98$ ,  $p<.01$ ,  $d=.55$ ), depression propensity ( $t=2.62$ ,  $p<.05$ ,  $d=.43$ ). Patients are more motivated to maintain the new strategies ( $t=-5.38$ ,  $p<.001$ ,  $d=-1.40$ ).

## Discussion/Conclusion

Our findings showed benefits of this intervention are obtained by increasing levels of motivation for maintaining new coping skills in FM patients. Furthermore, our intervention increased quality of life and reduced emotional distress. This study suggested the group CBT program proposed to FM patients produced significant improvement in FM self-management at short term (3 months) and long-term (12 months) comparatively with GTEM.

Our results, first of their kind in France, align with previously published data (Williams & al, 2012; Bernardy & al, 2013). While this study showed a group CBT treatment could be effective for a long-term FM self-management, further research is suggested with other clinical outcomes and greater number of patients.

## Bodily Symptoms in Children and Adolescents: Illness-Related Self-Concept and Parental Symptom Evaluations

Stefanie Jungmann & Michael Witthöft, University of Mainz, Germany

### Introduction

According to cognitive-behavioral models, cognitive processes such as dysfunctional evaluations of symptoms and illness-related self-concepts play a pivotal role in maintaining medically unexplained somatic symptoms (MUS). In childhood and adolescence, parental symptom evaluations can also contribute significantly to the development and maintenance of symptoms. Following dual-process models, the representations of the self (e.g., the self-concept of being ill or weak) are not always consciously accessible but are often automatically activated as implicit representations. So far, however, dysfunctional symptom evaluations in children and adolescents with distressing bodily symptoms and their parents have been rarely investigated and there are no studies on the implicit illness-related self-concept in childhood and adolescence.

### Method/Technique

78 children and adolescents (age:  $M=14.2$ ,  $SD=2.0$ ; female: 59%) from the general population conducted two versions of the Implicit Association Test (IAT) to measure the implicit illness-related and the implicit anxiety-related self-concept. Dysfunctional symptom evaluations of children, adolescents, and their parents were recorded via the Health Norms Sorting Task (HNST), which requires general and ambiguous symptoms to be rated as "healthy" or "no longer healthy". In addition, we used questionnaires on bodily symptoms and on psychological features (i.e. affective, cognitive, and behavioral) of the somatic symptom disorder according to DSM-5.

### Results/Outcome

Children and adolescents with clinically relevant bodily symptoms ( $n=21$ ) showed a significantly stronger implicit illness-related self-concept than children and adolescents without distressing bodily symptoms ( $d=0.66$ ); however, there was no significant difference regarding the implicit anxiety-related self-concept ( $d=0.29$ ). The implicit illness-related self-concept was significantly and specifically associated with the cognitive aspect (seriousness of symptoms) of somatic symptom disorder (self-judgement:  $r=.26$ , parental judgement:  $r=.34$ ). The positive relationship between the self-reported severity of MUS and the affective component (health anxiety) of somatic symptom disorder was moderated by parental dysfunctional evaluations of symptoms ( $\beta=.27$ ), with a significant correlation with more frequent dysfunctional evaluations.

### Discussion/Conclusion

Children and adolescents with clinically relevant bodily symptoms seem to develop a disorder-specific implicit self-view as being ill. Dysfunctional parental evaluations of bodily symptoms as "ill" may be relevant for the relationship between experienced bodily symptoms and health anxiety in children and adolescents.

Conclusion: The consideration and modification of parental symptom evaluations may also be a relevant target for the cognitive behavioral therapy of MUS in childhood and adolescence. Further research is needed to investigate which interventions can promote a more functional health-related self-concept.

## Open Papers 6: New Treatment Approaches for Children and Adolescents

Chair: Maria Kangas, Macquarie University, Australia

### A Transdiagnostic Intervention for the Concurrent Treatment of Somatic Symptom Disorder with Comorbid Anxiety and Depression in Children and Adolescents

Maria Kangas, Ron Rapee & Michael Jones, Macquarie University, Australia

Daniel Lemberg, Sydney Children's Hospital, Australia

#### Introduction

One-third of children/adolescents experience recurring somatic symptoms which are 'functional' yet medically benign including recurring headaches, abdominal pains, nausea and fatigue. This phenomenon is referred to as functional somatic syndrome (FSS). Although there is no gold standard definition or measure for pediatric FSS, more than 50% of children with FSS also experience emotional disorders. Unfortunately, the psychological impact of recurring FSS in children for the most part, goes undetected, or is minimized. The reclassification of somatization disorders in DSM-5 better captures the psychosocial impact of FSS in this diverse group of patients. The core criteria for Somatic Symptom Disorder (SSD) accentuates the distressing elements of somatic problems (Criterion A) with specific focus on dysfunctional cognitions, behaviours and affective responses (Criterion B). The SSD criteria provide a clinical heuristic framework to capture the difficulties experienced by distressed youth with recurring FSS and to demarcate those children whose symptoms have a significant impact on their psychosocial functioning. Moreover, given that recurring FSS in youth are also associated with maladaptive emotion-regulation strategies, this attests to the importance of providing transdiagnostic interventions to facilitate the management of recurring FSS that have a detrimental impact on a child's well-being. The aim of our study was to evaluate the efficacy of our new Cool Kids and Adolescent Health (CKH) program in reducing SSD, comorbid with anxiety and/or depression in children/adolescents aged 7-17 years.

### **Method/Technique**

The CKH program was evaluated using a 10 week wait-list control (WLC) RCT design. The program is based on a transdiagnostic manualized approach integrating core components from CBT and acceptance-based behavioral interventions. Child-Parent dyads for this RCT were required to complete clinical interviews and self-report measures at baseline, end of therapy/CKH (or at the end of the 10-week wait-list period), and at 3 follow-up assessments including 3-months, 6-months and 9-months post-therapy completion.

### **Results/Outcome**

Sixty families took part in this RCT. The final follow-up assessments were completed in late 2018. By post-treatment, based on both ADIS interviews and self-report measures, a significantly greater proportion of children/adolescents in the CKH condition were diagnostic free or at sub-threshold levels for SSD and comorbid anxiety/depressive disorders relative to children in the WLC condition.

### **Discussion/Conclusion**

To our knowledge, this is the first transdiagnostic RCT to treat distressed children and adolescents with SSD. Our findings provide initial support for the efficacy of the new CKH program to treat SSD comorbid with anxiety and depressive disorders in youth. Findings will also be discussed in context of child/parent moderator and mediation effects. Moreover, these results have important implications for school-aged children who experience repeated school absences and disruptions to family, social and peer activities due to recurring functional somatic health complaints.

## **Feelings About Feelings: Examining the Association Between Beliefs about Emotion, Emotion Regulation and Depression in Young People**

**Lauren Harvey, Caroline Hunt, Carolyn MacCann & Fiona White, University of Sydney, Australia**

### **Introduction**

Extensive research has demonstrated that emotion dysregulation appears to play a central role in the development and maintenance of depression. Namely, frequent use of maladaptive strategies (e.g. rumination or emotional suppression) at the cost of adaptive strategies (e.g. cognitive reappraisal, problem solving or acceptance) is associated with greater depressive symptoms. However, increasingly the role of contextual factors is being examined to understand why certain individuals may choose one emotion regulation strategy over another. One potential factor that may predict individuals' emotion regulation decisions are the beliefs they hold about their emotional experiences, and in particular their negative emotional experiences. The present research aimed to examine this question amongst two samples of young adults, a) an early-adolescent sample and b) an emerging-adult sample. It may be particularly important to understand the effects of such beliefs in young people given the high rates of mood disorders and suicide in this group in addition to this period acting as key period in development in the formation of attitudes regarding emotional states.

### **Method/Technique**

In Study 1a, 201 undergraduate psychology students participated, aged between 18-25 years. In Study 1b, data was collected from 666 high school students, aged between 11-15 years. To evaluate beliefs about the acceptability of experiencing negative emotions, all participants completed the Beliefs about Emotions Scale (Rimes & Chalder, 2010). All participants additionally completed the Emotion Regulation Questionnaire (Gross & John, 2003) to capture frequency of emotion suppression and cognitive reappraisal use in addition to the Ruminative Response Styles Questionnaire (Nolen-Hoeksema & Morrow, 1991) to measure rumination. Depressive symptoms were measured using the depression subscale on the Depression, Anxiety and Stress Scales (DASS-21) (Lovibond & Lovibond, 1995). Questionnaires were presented to all participants in a counterbalanced order.

### **Results/Outcome**

Statistical analyses consisted of multiple regression and mediation analyses conducted separately across male and female participants, given there are widely documented gender differences in the literature with regard to engagement in emotion regulation strategies. Disparate patterns of findings emerged across the two samples according to gender. In the emerging-adult sample, the relationship between beliefs about negative emotions and depression was fully mediated by increased emotion suppression and increased rumination in females only. No significant mediation effects were observed in males. Within the early adolescent sample, the relationship between beliefs about negative emotions and depression was partially mediated by reduced cognitive reappraisal and increased rumination in females, whereas in males this relationship was partially mediated through increased rumination only. No significant mediation effects were found when examining emotion suppression in early adolescents.

### **Discussion/Conclusion**

While we are unable to draw causal inferences regarding the relationship between beliefs about emotion, emotion regulation and depression from the results of these studies, these results highlight the potentially important relationship between beliefs about emotion and emotion regulation in future understanding, treatment and prevention of depressive disorders in young people.

## **The Effects of a Mindfulness-based Group Intervention Program on Attention Deficit Hyperactivity Disorder Symptomatology, Emotion Regulation and Executive Functions in a Sample of Children with Attention Deficit Hyperactivity Disorder**

**Anna Huguet, Jose A. Alda, Jon Izaguirre, Imma Insa, Marta Chamorro & Xavier Vall, Hospital Sant Joan de Déu Barcelona Children's Hospital, Spain**

**Dolores Miguel-Ruiz, Campus Docent Sant Joan de Deu, Spain**

### **Introduction**

ADHD is a common childhood psychiatric disorder characterized by three core symptoms: inattention, hyperactivity and impulsivity. It is estimated to affect 3.4% of school-aged children around the world. Most children with ADHD have significant impairments in executive functions, which include cognitive flexibility, inhibition, working memory, planning, problem-solving, self-control and self-regulation. Epidemiological research has found a strong association between ADHD and emotion dysregulation.

Evidences of mindfulness training as a useful tool to manage inattention, hyperactive-impulsive symptoms, executive functions and emotional dysregulation are emerging.

The aim of this study was to investigate the efficacy of a structured mindfulness group intervention program targeting ADHD core symptoms, executive functions and emotion dysregulation.

### **Method/Technique**

120 children aged 7-12 years newly diagnosed with ADHD were randomized in two groups (mindfulness and control). Participants were recruited from a specialist ADHD unit, part of a child and adolescent mental health department within a pediatric Hospital and from a Child

and Adolescent Mental Health Service. Treatment group received an intervention program based on mindfulness (8 sessions, once-per-week, 75 minutes and daily homework assignments). The control group received the usual treatment for this condition including school guidelines, psycho-educational intervention, behaviour management guidelines, pharmacological treatment was not included. Assessment included a semi-structured diagnostic interview (KSADS), ADHD RS IV (parent and teacher version) to assess severity of ADHD symptoms, an executive functions battery (ENFEN) was applied and emotional dysregulation was assessed using the Child Behavior Checklist (CBCL) Attention/Anxiety-Depression/Aggression (AAA) scales. Repeated measures ANOVA was performed. (Grant study: BR201501).

#### **Results/Outcome**

A significant interaction time x group was observed in inattentive symptoms severity, hyperactive-impulsive symptoms severity and total symptoms severity referred both by the parents and the teachers. Parents results: Inattention symptoms: ( $F(1,108)=14.35$ ;  $p<0.001$ ); Hyperactive-impulsive symptoms: ( $F(1,108)=22.57$ ;  $p<0.001$ ); Total symptoms ( $F(1,108)=20.06$ ;  $p<0.001$ ). Teachers results: Inattention symptoms: ( $F(1,71)=3.71$ ;  $p=0.05$ ); Hyperactive-impulsive symptoms: ( $F(1,71)=5.85$ ;  $p=0.018$ ); Total symptoms ( $F(1,71)=6.94$ ;  $p<0.01$ ). A significant interaction time x group was observed in self-control, self-regulation (emotion dysregulation) ( $F(1,108)=6.33$ ;  $p=0.013$ ). A significant interaction time x group was observed in planning ( $F(1,109)=3.87$ ;  $p=0.05$ ).

#### **Discussion/Conclusion**

This study suggests that mindfulness in the form of structured group therapy might be clinically relevant in treating children with ADHD; results show a reduction of ADHD symptoms, show lower levels of emotional dysregulation and improvements in executive functions. We propose mindfulness as a useful treatment modality for children with ADHD. This study offers valuable information about possible effective new intervention strategies for children with ADHD.

### **Trans-Diagnostic Group Behavioral Activation Therapy Early Intervention for Youth Anxiety and Depression in China**

**Fang Zhang, Shang Hai Jiaotong University, China**

**Hongmei Yang, Shanghai Jing an Education College, China**

**Wenjing Liu & Yang Sun, Shanghai Mental Health Center and Shanghai Jiao Tong University, China**

**Myron L Belfer, Harvard Medical School and Boston Children's Hospital, USA**

**Wenhong Cheng, Shanghai Mental Health Center and Shanghai Jiao Tong University, China**

#### **Introduction**

Anxiety and depression are common mental disorders and a huge disease burden among adolescents. Erskine HE, et al. (2015). A meta-analysis of 27 countries reported the prevalence of anxiety disorders was between 6% - 20%. Polanczyk GV, et al. (2015). However, Most sufferers do not receive clinical treatment. Due to stigma, lack of professional workers and health insurance. Compared with developed countries such as Europe and United States, In low-and middle-income countries, like China, those problems are more obvious. Facing those problems, high structure, easy to master and operation, and widely popularized cognitive behavior group intervention based on the school environment has been recommended and confirm that school-based prevention and intervention is feasible and effective for addressing emotional problems of children and adolescent. Neil AL, et al. (2007). Besides, Because of the high incidence of anxiety and depression and the same core pathological mechanism. Clark LA and Watson D (1991), Trans-diagnostic intervention which try to address both depression and anxiety disorders appeared. Taylor S, and Clark DA (2009). The trans-diagnostic Group Behavioral Activation Therapy (GBAT) was one of Trans-diagnostic intervention for adolescents' anxiety and depression, which was developed by Chu, et al. (2009). We want to test the efficacy of western model of GBAT in adolescents' anxiety and depression under school environment in Shanghai.

#### **Method/Technique**

The sample consisted of 209 high school students (age = 12-17 years old, 40.7% male) from Jing'an district of Shanghai. They were respectively randomized to Behavioral Activation Group (BAG,  $N=73$ ), Support Control Group (SCG,  $N=67$ ) and Waiting-list Control Group (WCG,  $N=69$ ). BAG and SCG have group activity once a week, 60min each session for 8 weeks, each group had 8-10 students. The Screen for Child Anxiety Related Emotional Disorders (SCARED), Depression Self-rating Scale for Children (DSRSC), The Automatic Thoughts Questionnaire (ATQ) and the Behavioral Activation for Depression Scale (BADS) were used for all participants from three groups at three time points (baseline, after 8 week treatment or waiting, 3-month follow-up) to assess the intervention effect.

#### **Results/Outcome**

The scores of anxiety and depression in BAG decreased significantly after intervention and 3-month follow-up and there was a sustained fall trend. The scores of ATQ and BADS were not significantly improved in BAG, even slightly worse after the intervention, but there was a downward trend after 3-month follow-up. All the scores in the SCG improved after intervention, but after 3-month follow up, the scores of SCG didn't show the significant difference. There was no any significant change in the WCG.

#### **Discussion/Conclusion**

The study shows that western model of GBAT based on school environment could effectively improve adolescents' anxiety and depression symptom in Shanghai, and the effectiveness might increase with time after three month later. The study also suggests more cognitive intervention might be considered for Chinese children.

### **Exploring the Effectiveness of a Combined Parent-Based and Early Cognitive Behavioral Therapy Intervention for Young Children with Internalizing Symptoms**

**Paul Stallard, University of Bath, United Kingdom**

**Brian Fisak, University of Central Florida, USA**

**Julia Gallegos-Guajardo, University of Monterrey, Mexico**

**Paula Barrett, Friends Program International Foundation and Edith Cowan University, Australia**

#### **Introduction**

Internalizing symptoms exhibit an unusually high prevalence rate in preschool-aged children (Egger and Angold, 2006). Therefore, the need for evidence-based interventions that focuses on the reduction of symptoms and enhancement of resilience (Li-Grining and Durlak, 2014). The Fun FRIENDS program was developed as an approach to reduce psychological distress, with a particular emphasis on internalizing symptoms, and improved resilience in preschool-aged children (Barrett, 2007a and 2007b). Utilizing a play-based, cognitive-behavioral approach, the program targets socio-emotional areas in order to decrease internalizing symptoms. Standard delivery of the program also includes two parent sessions to provide psychoeducation about anxiety and depression, as well as resilience and parenting skills training. Although previous studies have reported positive outcomes for children after receiving the Fun FRIENDS intervention (Anticich, Barrett,

Silverman, Lacherez, and Gillies, 2013), it is likely that an intervention with an increased emphasis on the building of resilience in parents may enhance its effectiveness. There is evidence to suggest that level of parent functioning and adjustment has an impact on child functioning (Essau & Sasagawa, 2008), and high levels of parent stress are associated with adjustment difficulties in children (Pahl, Barrett and Gullo, 2012). Furthermore, parental distress and psychopathology have been found to be negatively associated with outcome in child intervention programs (Bodden et al., 2008). The purpose of this study was to evaluate an open trial of the Fun FRIENDS program combined with a concurrent parent-focused resilience building intervention, named as the Strong Not Tough: Adult Resilience Program (Barrett, 2012a, 2012b). The adult program teaches skills such as mindfulness, emotion recognition skills, relaxation skills training, attention training, cognitive restructuring, problem solving strategies, conflict resolution, and assertiveness training.

#### **Method/Technique**

Participants were 178 children, ranging in age from 5 to 7, and their parents. Assessment was conducted at pre and post-intervention through the following self-report questionnaires completed by parents: Preschool Anxiety Scale, Spence Children's Anxiety Scale, Strengths and Difficulties Questionnaire, Children's Depression Inventory, Depression Anxiety and Stress Scales– Short form, Parenting Stress Index - Short Form, and the Devereux Adult Resilience Survey. Both interventions were conducted in a group format, the Fun FRIENDS intervention was conducted over 10 sessions and The Strong Not Tough: Adult Resilience program over eight-hour sessions. A series of repeated-measures t-tests were conducted to assess changes in both child and parent functioning from pre to post-intervention. Further, a series of hierarchical regression analyses were carried out to examine the degree to which changes in parent-stress predicted child anxiety scores at post-intervention.

#### **Results/Outcome**

Based on assessment from pre to post-intervention, significant improvements were found in both child and parent functioning, including reductions in internalizing symptoms and increases in levels of resilience. Also, for mothers, reduction in parent related stress from pre to post-intervention predicted levels of child anxiety at post-intervention.

#### **Discussion/Conclusion**

The results of this study provide support for the positive impact of Fun FRIENDS enhanced with an adult resilience building program for parents. The presentation will discuss the strengths and limitations of the study, findings will be compared with previous studies, and suggestions for research and practice will be offered.

### **Open Papers 7: New Developments in Online Interventions s**

**Chair: Fjóra Dögg Helgadóttir, AI-Therapy, Iceland**

#### **Unguided Online Cognitive Behavior Therapy in University and Community Samples: AI-Therapy's Overcome Social Anxiety Program**

**Fjóra Dögg Helgadóttir, AI-Therapy and Dr. Fjóra & Kompani, Canada**

**Hugh McCall, University of Regina and University of British Columbia, Canada**

**Ross Menzies, University of Technology of Sydney, Australia**

**Frances Chen, University of British Columbia, Canada**

**Heather Hadjistavropoulos, University of Regina, Canada**

**Chris Richardsson, University of British Columbia, Canada**

#### **Introduction**

Social anxiety disorder is one of the most common anxiety disorders and tends to be persistent at all levels of severity if left untreated. Computer-delivered evidence-based treatment is a promising solution to reduce suffering worldwide. However, most recent evaluations of efficacy involve therapist-guided systems. One exception is AI-Therapy's Overcome Social Anxiety program, which is a fully automated treatment program with clinical decisions programmed into its algorithms. An earlier version of the intervention has demonstrated scalability, large effect sizes and promising completion rates in stuttering populations. The current intervention is called Overcome Social Anxiety and is targeted towards everyone with social anxiety.

#### **Method/Technique**

An Independent research team at the University of British Columbia conducted a randomized controlled trial (RCT) evaluation. The RCT was conducted such that the creators of the intervention had no involvement in data collection or analysis. Secondly, in an effort to extend the generalizability of this RCT, data from real users living in 30+ countries around the world was analyzed to evaluate the magnitude of pre-treatment-to-post-treatment symptom change.

#### **Results/Outcome**

Our findings indicate that Overcome Social Anxiety is an effective intervention for treating symptoms of social anxiety. The first trial found an effect size considerably larger than other unguided interventions and comparable to guided interventions. Participants assigned to the treatment condition experienced a significant reduction in social anxiety symptoms according to both the SIAS ( $t=3.94$ ,  $P<.001$ , Cohen  $d=0.72$ ) and the FNE ( $t=4.48$ ,  $P<.001$ , Cohen  $d=0.82$ ), whereas those assigned to the waitlist control condition did not (SIAS:  $t=1.55$ ,  $P=.13$ , Cohen  $d=0.26$ ; FNE:  $t=0.85$ ,  $P=.40$ , Cohen  $d=0.14$ ). The second trial demonstrated that these findings are generalizable to real-world users, with a large effect size on the FNE ( $P<.001$ ; Cohen  $d=1.76$ ). In addition, the algorithms in the Overcome Social Anxiety designed to target poor adherence for unguided interventions are encouraging. The intervention had the highest documented completion rate for unguided intervention for anxiety or low mood in a real community sample.

#### **Discussion/Conclusion**

Contemporary Web-based interventions can be sophisticated enough to benefit users even when delivered as standalone treatments. The method of using algorithms to make clinical decisions may serve as a model for the development of new interventions. Even though Overcome Social Anxiety currently has the highest documented completion rate in a community sample, further innovation is warranted to increase completion rates for fully automated interventions in order to unlock the full public health potential of these promising and scalable treatments.

## **Pilot Study of Intensive One-week Delivery of Online Cognitive Behavioral Therapy for Panic Disorder**

**Eileen Stech & Jill Newby, University of New South Wales, Australia**

### **Introduction**

Previous research has demonstrated that cognitive behavioural therapy (CBT) can be successfully delivered in an intensive or massed format for a range of presentations, including: panic disorder, agoraphobia, specific phobias, PTSD and OCD. However, massed therapy is rarely available in the community. Additionally, massed therapy is often very expensive due to the substantial amount of therapist time and specialist expertise required. Delivering CBT via the internet (iCBT) may provide an avenue for increasing the availability of massed CBT. iCBT for panic disorder resembles an online course and typically entails 5-10 modules that teach key cognitive and behavioural strategies. Several independent research groups have demonstrated that iCBT for panic disorder is effective in reducing panic symptom severity when delivered over 8-12 weeks (Olthuis et al., 2015). However, no research has explored whether iCBT for panic disorder can be delivered in a massed format.

### **Method/Technique**

To explore the feasibility of delivering CBT in a massed format via an online course, we developed a 7-day iCBT program for panic disorder. Similar to face-to-face massed CBT, the massed iCBT program focuses on the most potent components of treatment (exposure). The program includes 6 lessons, with one lesson introduced per day, except day 6 which is devoted to practicing challenging exposures. Clinician support was provided via email or phone. Outcomes of self-reported symptom severity, functional impairment, and health service utilization were assessed at baseline, one week post-treatment, and two month follow-up.

### **Results/Outcome**

This open pilot study is the first attempt to deliver iCBT for any presentation in a massed format. This talk will provide an overview of the content and format of the massed iCBT program, discussion of the experiences of service-users and therapists, and preliminary results from a pilot study, which show significant improvements in panic symptoms.

### **Discussion/Conclusion**

Delivering massed CBT via the internet is a feasible treatment option for a subset of treatment seeking individuals. It appears to be most appropriate for individuals with significant functional impairment due to panic (e.g. unable to work) who are highly motivated to address their fears, often despite several unsuccessful attempts to seek treatment. Individuals who are ambivalent about participating in exposure therapy are not appropriate candidates for internet delivered massed CBT.

This novel massed iCBT program for panic disorder may increase access to intensive therapy, and expedite symptom reduction and improvement in quality of life. Delivering massed CBT via the internet reduces therapist contact time and may be more cost-effective and scalable compared to face-to-face delivery.

## **Predicting Engagement with Online Interventions for Psychosis: Findings from the Self-Management and Recovery Technology (SMART) Project**

**Chelsea Arnold, Kristi-Ann Villagonzalo & Fiona Foley, Swinburne University of Technology, Australia**

**John Farhall, La Trobe University, Australia**

**Neil Thomas, Swinburne University of Technology, Australia**

### **Introduction**

Research has demonstrated that psychological interventions such as CBT can be delivered effectively over the Internet. These online interventions have the potential to overcome cost and accessibility barriers associated with traditional therapies. However, poor engagement with online treatment programs is common across clinical populations. Early research suggests that the majority of individuals with psychosis have positive attitudes towards utilising the Internet for treatment of their mental health and can benefit directly from them. However, further research is needed to understand how these individuals use technology and how online interventions can be designed to maximise engagement. Research has shown that factors related to the intervention (e.g. email support) and the individual (e.g. motivations for treatment or recovery style) influence engagement with online interventions in other clinical populations. However, there is currently limited knowledge of factors that influence engagement with online interventions amongst individuals with psychosis. Understanding these factors is critical to optimising both the design and implementation of future online interventions.

### **Method/Technique**

The current study aimed to investigate individual- and intervention-related variables that may predict engagement with online, psychosocial interventions for psychosis. Ninety-eight participants received access to the Self Management and Recovery Technology (SMART) website, an online resource providing materials on illness self-management and personal recovery based on cognitive behaviour therapy methods. To examine the impact of receiving additional email support, participants were randomised to receive either independent access to the SMART website, or access to the website coupled with weekly emails from a mental health worker over a 12-week period. Participants provided information relating to demographics, recovery style and motivations for using the website. Regression analyses were conducted to examine predictors of total engagement with the website.

### **Results/Outcome**

Negative binomial regression revealed that receiving additional emails, having a tertiary education, older age, and lower levels of external motivations for treatment predicted greater use of the SMART website over the intervention period.

### **Discussion/Conclusion**

Both intervention and individual level factors predict engagement with self-guided digital interventions for psychosis. This presentation will involve a discussion of these factors and how they should be considered when designing and implementing online psychological interventions for individuals with severe mental illness such as psychosis.

## **The Sweet Spot: Randomized Controlled Trial Comparing Different Levels of Clinician Support for Internet-Based Cognitive Behavioural Therapy for Anxiety and Depression**

**Gavin Andrews, Ashlee Grierson\*, Megan Hobbs & Alison Mahoney, St Vincent's Hospital Sydney, Australia**

**Amy Joubert & Jill Newby, University of New South Wales, Australia**

### **Introduction**

Internet-delivered transdiagnostic CBT is effective for treating anxiety and depression, and research shows that clinician guidance improves adherence/completion rates. However, the optimal level of clinician or technician guidance is unknown.

### **Method/Technique**

We conducted a randomised controlled trial (RCT), of a 6-lesson transdiagnostic iCBT intervention for mixed anxiety and depression, with 600 participants who were randomised to either usual care, or the iCBT program with one of five levels of clinician support (self-help only, technician on request, scheduled technician, clinician on request, scheduled clinician), delivered over 12-weeks. Participants were followed up at 3-months post-treatment. Primary outcomes were depression (PHQ-9), anxiety (GAD-7) scores, health service utilization (SUDOR), and completion rates.

### **Results/Outcome**

As expected, participants in the self-help iCBT program had the lowest levels of adherence, with the highest adherence in the clinician-supported groups. Differences in depression and anxiety were shown across the treatment groups, where the technician on request group appeared to perform better than the clinician scheduled group at post and 3 month follow-up. Comparative differences in health service utilization were shown across groups.

### **Discussion/Conclusion**

Differences in outcomes across treatment groups appear to be related to level of clinician or technician guidance when delivering iCBT, which need to be considered in the context of less health service use in the clinician groups. While clinician guidance is critical for maximizing adherence and outcomes of transdiagnostic iCBT, there is a 'sweet spot' of therapist support, which delivers the best outcomes and is most cost effective.

## **Let's Get It On(line) - Study Protocol of an Internet-Based Intervention for Women with Hypoactive Sexual Desire Disorder**

**Milena Meyers & Julia Velten, Ruhr University Bochum, Germany**

### **Introduction**

Hypoactive sexual desire is the most common sexual problem among women (West, Kalsbeek, Borisov et al., 2008). Evidence-based psychological treatments such as cognitive-behavioral and mindfulness-based therapy are effective (e.g. Basson, Wierman, van Lankveld et al., 2010; Brotto, Basson, Smith et al., 2014), but access is limited and women, even though severely distressed, often hesitate to seek help because they fear stigmatization (Bergvall & Himelein, 2014). A solution to this problem may be Internet-based interventions. Treatments administered online are easily accessible and available at any time. A large body of research has shown beneficial effects of online-treatments for several mental disorders (e.g. depression, social anxiety, Kiropoulos, Klein, Austin, et al.2008). A recent review has shown internet-based treatments to be effective for sexual dysfunctions in women (Van Lankveld, 2016). With this study, we aim to connect the dots between the possible benefits of an online treatment (e.g. easy, anonymous access) and the already existing findings concerning the efficacy of cognitive-behavioural and mindfulness-based treatments for hypoactive sexual desire disorder (HSDD).

### **Method/Technique**

In a three-armed design, with two active treatments and one waitlist condition, we will administer two Internet-based treatment programs, comprising 8 sessions each. One treatment is based on cognitive behavioural methods such as thought protocols, situational analysis and cognitive restructuring, while the other will include mindfulness-based methods. Both treatments will include psycho- and sexual education as well as self-exploration and sensate focus exercise.

### **Results/Outcome**

We aim to recruit 266 women, meeting the diagnostic criteria for HSDD. They will be randomly assigned either to one of the intervention groups or a waitlist control group. The primary outcome will be the level of sexual desire, measured via Sexual Interest and Desire Inventory-Female (SIDI-F, van Lunsen, Nappi, Tignol et al., 2008).

### **Discussion/Conclusion**

With this talk we intend to give an overview of the treatment protocol and hypothesized outcomes. Furthermore we will present preliminary results from qualitative interviews with participants focusing their expectations for treatment. Bearing in mind the prevalence of HSDD and the possible effects on personal life and well-being, easily accessible evidence-based treatment options are necessary, but virtually non-existent. The study at hand intends to provide insights to establish further treatment options to solve this problem.

## **Open Papers 8: German language Open Papers**

**Chair: Charlotte Wittekind, Ludwig Maximilians-Universität München, Deutschland**

### **SASB-KJ. Die Strukturelle Analyse Sozialen Verhaltens (SASB) in der Kinder- und Jugendlichenpsychotherapie**

**Michael Wöste & Petra Hampel, Europa-Universität Flensburg, Deutschland**

**Gunter Groen, Hochschule für Angewandte Wissenschaften Hamburg, Deutschland**

#### **Einleitung**

Die Strukturelle Analyse Sozialen Verhaltens (SASB; Benjamin, 1974) ist ein interpersonelles Zirkumplexmodell mit den beiden grundlegenden Dimensionen „Affiliation“ und „Interdependenz“, es dient der Erfassung von zwischenmenschlichen Beziehungen auf den Fokusebenen eines aktiven und eines reaktiven Verhaltens. Durch die dritte Fokusebene wird der aktive Umgang mit sich selbst erhoben, dieser Fokus wird als „Introjekt“ bezeichnet. Ziel der Arbeit war die Konzeption einer integrativen Version des SASB-Modells für die Kinder- und Jugendlichenpsychotherapie (SASB-KJ). Hierzu wurde geprüft, ob die SASB zu den Verfahren der aktuellen Dritten Welle der Verhaltenstherapie gezählt werden kann und welchen Mehrwert die SASB-KJ innerhalb der Kinder- und Jugendlichenpsychotherapie leisten kann. Durch die Erfassung des Introjektes wurde darüber hinaus zwei Hauptfragestellungen nachgegangen. Die erste Hauptfragestellung befasste sich mit Unterschieden im Introjekt bei internalisierenden und externalisierenden Störungen. In der zweiten Hauptfragestellung wurde untersucht, ob sich das Introjekt im Verlauf einer tagesklinischen Behandlung verändert und dadurch die Variable Therapieerfolg erfasst werden kann.

#### **Methode**

Die deutsche Langform des SASB Introjekt-Fragebogens (Tscheulin & Glossner, 2002) wurde für den Einsatz bei Kindern und Jugendlichen angepasst. Der endgültige Fragebogen wurde durch N = 122 Patienten (M = 13.89, SD = 2.82) beantwortet. Für die zweite Fragestellung wurden insgesamt n = 18 Patienten einer Tagesklinik zu drei Zeitpunkten der Behandlung befragt. Zur Eingabe der Fragebogendaten wurde die SASB Software MakeMapsWin (Tscheulin, 2001) genutzt. Zur Reliabilitätsbestimmung wurde die interne Konsistenz berechnet, die

Konstruktvalidität wurde durch Faktorenanalysen und Korrelationsberechnungen bestimmt. Zur Hypothesentestung wurden t-Tests und Varianzanalysen der Clustermittelwerte berechnet.

### **Ergebnisse**

Die interne Konsistenz der einzelnen Cluster schwankte zwischen .38 und .78 je Cluster. Eine Hauptkomponentenanalyse mit zwei vorgegebenen Faktoren konnte die theoretisch vorgegebene zirkumplexe Struktur gut wiedergeben, die aufgeklärte Gesamtvarianz lag bei 62.92%. Die Überprüfung der ersten Hauptfragestellung erbrachte lediglich eine signifikante Differenz ( $p = .010$ ,  $d = .58$ ) in Cluster 1, dieser beschreibt „freie Spontaneität“. Im Rahmen der zweiten Hauptfragestellung beschrieben die Patienten im Messzeitpunkt t3 eine stärkere „wohlwollende Selbsterforschung“ (Cluster 2,  $p = .003$ ,  $d = 1.17$ ) und eine geringere „Selbstunterdrückung“ (Cluster 6,  $p = .035$ ,  $d = .76$ ) als bei Aufnahme in die Tagesklinik.

### **Diskussion**

Die Anpassung des SASB Introjekt-Fragebogens konnte erfolgreich umgesetzt werden. Die ermittelten Gütekriterien zur Reliabilität lagen überwiegend im zufriedenstellenden Bereich bei weiterem Verbesserungspotential. In beiden Hauptfragestellungen lagen in der qualitativen Betrachtung die erwarteten Unterschiede respektive Veränderungen vor. Einschränkung ist zu erwähnen, dass der überwiegende Teil der Clustermittelwerte keine signifikanten Unterschiede zeigte. So konnte in beiden Fällen die Nullhypothese nicht abgelehnt werden. Schlussfolgerungen: Die SASB kann als Verfahren der Dritten Welle der Verhaltenstherapie betrachtet werden. Durch die Erfassung aller Fokusebenen kann eine umfassende interpersonelle Baseline der erlebten inter- wie intrapersonellen Beziehungen erhoben werden. Durch die Darstellung positiver Verhaltensweisen kann zudem ein umfassenderes Gesundheitsverständnis etabliert werden. Über die wiederholte Erfassung der interpersonellen Baseline kann ein Leitfaden für eine Psychotherapie erstellt werden. Innerhalb dieses Rahmens können integrativ unterschiedliche Behandlungsverfahren einbezogen werden und einheitliche Begriffsstrukturen geschaffen werden. Mit der Nutzung der SASB-KJ wäre ein ganzheitliches Modell für die therapeutische Praxis vorhanden, mit dem ein maßgeblicher Beitrag zur Qualitätssicherung psychotherapeutischer Prozesse gelingen könnte.

## **Wirkfaktoren der Psychotherapie**

**Robert Mestel, Helios Kliniken Bad Grönenbach, Deutschland**

### **Einleitung**

Psychotherapie wirkt, jedoch ist unklar, was an der Psychotherapie genau wirkt.

### **Methode**

In einem Literaturreview basierend auf den einschlägigen Metaanalysen wird auf die Anteile erklärter Varianz des Psychotherapieerfolgs eingegangen.

### **Ergebnisse**

Elemente der Psychotherapie können nur maximal 14-36% der Varianz aufklären bei Effektstärken von  $d = .8$  (Durchschnitt) bis  $d = 1.5$  (sehr wirksame Psychotherapie), den Rest erklären andere Faktoren.

Merkmale des Therapeuten wie Empathie, Wertschätzung, Zielkollaboration erklären von den beeinflussbaren Faktoren die meiste Varianz. Keine Rolle spielen sein Geschlecht, sein Alter oder seine Therapieerfahrung, wie viel Selbsterfahrung oder Supervision er erhalten hat. Der Therapeut selbst erklärt in ambulanten naturalistischen Studien mehr Varianz (5-9%) im Vergleich zu kontrollierten Studien (3%) oder stationärer Psychotherapie (<1%). Bei den meisten untersuchten Störungen der Patienten spielt die Therapieorientierung für die Wirksamkeit kaum eine Rolle, mit Ausnahme von spezifischen Phobien oder Zwangsstörungen. Erklärungsversuche für dieses Äquivalenzparadoxon werden skizziert. Die Rückmeldung von Therapieverläufen und die Implementierung korrigierender Strategien bei schlechten Verläufen verbessern die Wirksamkeit messbar.

### **Diskussion**

Ein Fazit aus der wissenschaftlichen Evidenz könnte sein, Patienten durch unabhängige Diagnostiker oder Institute reliabel zu diagnostizieren und Patienten mit bestimmten Störungsbildern als first line Treatment mit kognitiver Verhaltenstherapie zu behandeln. Die übrigen Patienten sollten durch Psychotherapeuten verschiedener Orientierungen behandelt werden, wobei besser zu überprüfen wäre, welche Therapeuten systematisch suboptimale oder gar schlechte Wirksamkeiten erzielen.

## **Prädiktoren für die Wirksamkeit der Gruppenselbsterfahrung in der Ausbildung zur Verhaltenstherapeutin – ein Forschungsprojekt der Österreichischen Gesellschaft für Verhaltenstherapie (ÖGVT)**

**Susanne Ohmann, Universitätsklinik für Kinder- und Jugendpsychiatrie, Austria**

**Ingeborg Pucher-Matzner, Institut für Medizinische Psychologie, Austria**

**Christian Popow, Universitätsklinik für Kinder- und Jugendpsychiatrie, Austria**

**Nina Pintzinger, Zentrum für seelische Gesundheit Leopoldau, Austria**

**Heribert Semlitsch, Psychotherapeutische Praxis, Austria**

**Monika Schlögelhofer, BioPsyC - Biopsychosocial Corporation, Austria**

### **Einleitung**

In der Psychotherapieausbildung aller therapeutischen Orientierungen im deutschsprachigen Raum gilt die Selbsterfahrung als verpflichtender Ausbildungsbestandteil (Berns, 2015). Welchen Einfluss die Wirkung von Selbsterfahrung auf PsychotherapeutInnen hat, wird kontrovers diskutiert und ist empirisch kaum überprüft (Berns, 2005; Strauß und Kohl, 2009b; Rizq, 2011; Caspar, 1998; Macran und Shapiros, 1998), nicht zuletzt aufgrund methodischer Schwierigkeiten wegen mangelnder Homogenität innerhalb verschiedener Ausbildungslehrgänge zur Psychotherapie. Während einige WissenschaftlerInnen aufgrund der ungesicherten Forschungsergebnisse Selbsterfahrung als Bestandteil der Psychotherapieausbildung als überflüssig ansehen, bestätigen verschiedene wissenschaftliche Studien sehr positive Effekte der Selbsterfahrung in der Psychotherapie (Orlinsky et al. 2001; Petzold et al. 1998; Lieb, 1998b).

### **Methode**

Im vorliegenden Ausbildungsforschungsprojekt sollen neben Wirkfaktoren der Selbsterfahrung bei VerhaltenstherapeutInnen im Ausbildungsstatus, das Maß an eigener Veränderung durch Gruppenselbsterfahrung (GSE) untersucht werden und mögliche Prädiktoren, welche die Entwicklungsfähigkeit angehender VerhaltenstherapeutInnen vorhersagen, evaluiert werden. AusbildungskandidatInnen der ÖGVT wurden im Rahmen ihrer GSE (insgesamt 150 Stunden) zu je 4 Zeitpunkten (T1 – vor Beginn der GSE, T2 – nach 50 Stunden, T3 – nach 100 Stunden und T4 – am Ende der GSE) mittels unterschiedlicher Fragebögen evaluiert. Dabei kamen u.a. Die Kieler Gruppenpsychotherapie-Prozess-Skala (KGPPS) zur Fremdbeurteilung therapeutischer Faktoren in der Gruppenpsychotherapie, das Inventar

zur Erfassung interpersonaler Probleme (IIP-C), Fragen zu Wirkvariablen innerhalb der Selbsterfahrung (FKV-2) und der Fragebogen zur verhaltenstherapeutischen Selbsterfahrung zur Anwendung.

### **Ergebnisse**

Erste Ergebnisse werden zusammenfassend präsentiert und diskutiert.

## **Behandlungswege in Psychiatrie und Psychosomatik bei depressiver Symptomatik - eine Verlaufsuntersuchung zu patientenbezogenen Outcomes ein Jahr nach der Behandlung**

**Carmen Uhlmann, Universität Ulm, Germany**

### **Einleitung**

Depressionen, Ängste und Belastungsreaktionen gehören zu den häufigsten psychischen Störungen. Die (teil-)stationäre Behandlung dieser Erkrankungen erfolgt in verschiedenen Bereichen und Settings. Bisher kaum beforscht sind die differentielle Indikationsstellung, die Behandlungswege, der weitere Erkrankungsverlauf, Teilhabemöglichkeiten und die Inanspruchnahme von Ressourcen der Patient\*innen aus den unterschiedlichen Settings im direkten Vergleich.

### **Methode**

In einer prospektiven Verlaufsstudie wurden 320 Patient\*innen mit einer Depression, Angst- oder Belastungsstörung (ICD-10 F3, F40, F41, F43) nach klinischer Zuweisung in einen von vier verschiedenen stationären bzw. teilstationären Versorgungsbereichen untersucht: psychiatrische Depressionsstation, psychiatrische Krisenstation, psychosomatische Akutklinik und psychiatrische Tagesklinik. Neben einer ausführlichen psychopathologischen Diagnostik durch ein externes Forschungsteam wurden bei Aufnahme und bei Entlassung sowie nach 6 und 12 Monaten diverse klinische und personenbezogene Daten erhoben, darunter Weiterbehandlung und Wiederaufnahmen, Erwerbsstatus, psychische Symptomatik, funktionelle und Teilhabe-Einschränkungen.

### **Ergebnisse**

Patient\*innen der unterschiedlichen Settings hatten bereits bei Aufnahme unterschiedliche Charakteristika. Auch die Krankheitsverläufe der Patient\*innen zwischen Aufnahme und einem Jahr nach Entlassung variierten erheblich über die vier Behandlungssettings. Die Ausgangswerte der klinischen Symptomatik differierten zwischen den Settings, im Verlauf des Jahres glichen sich die Werte jedoch immer weiter an. Die Response- und Remissionsraten, gemessen per BDI-II, unterschieden sich nicht signifikant zwischen den Bereichen. Die Responderaten lagen zwischen 56 % und 75 %, die Remissionsraten bei 39 % bis 55 %. Stärker belastete Teilnehmer\*innen, meist von der Depressions- und der Krisenstation, verbesserten sich stärker. Dabei variierten die Verweildauern der Patient\*innen in der nachstationären Behandlung zwischen den Settings beträchtlich. Patient\*innen der Depressions- und der Krisenstation hatten bei Aufnahme zudem schwerere Aktivitäts- und Partizipationsbeeinträchtigungen. Auch hier glichen sich die Teilnehmer\*innen aus den unterschiedlichen Settings nach einem Jahr an.

### **Diskussion**

Patient\*innen der 4 verschiedenen Behandlungssettings weisen bei Aufnahme diverse Unterschiede auf. Dies spricht für eine Passung der unterschiedlichen Settings für unterschiedliche Patient\*innen. Nach der Behandlung gleichen sich die Patient\*innen im Verlauf eines Jahres dann immer weiter an, die nachstationäre Behandlungsintensität variiert dabei. Es bleibt jedoch unklar, ob der Behandlungserfolg bei einheitlichem Setting nicht ähnlich gewesen wäre.

## **Open Papers 9: Risk and Resilience Factors in Youth**

**Chair: Ron Rapee, Macquarie University, Australia**

### **Resilience Factor Changes Between Early and Late Adolescence**

**Jessica Fritz & Jan Stochl, University of Cambridge, United Kingdom**

**Eiko I. Fried, Leiden University, the Netherlands**

**Ian M. Goodyer, University of Cambridge, United Kingdom**

**Claudia D. van Borkulo, University of Amsterdam, the Netherlands**

**Paul O. Wilkinson & Anne-Laura van Harmelen, University of Cambridge, United Kingdom**

### **Introduction**

Childhood adversity (CA), such as trauma or long-lasting stress, is strongly associated with mental health problems. Resilience factors (RFs) reduce the liability for mental health problems subsequent to CA. As mental health levels change over time, RFs may also change. Yet, knowledge on the latter is scarce. Therefore, we examined whether RF mean levels, RF interrelations, and RF pathways to distress change between early (age 14) and later adolescence (age 17).

### **Method/Technique**

We studied 10 empirically-supported RFs in adolescents with (CA+; n=638) and without CA (CA-; n=501). RF interrelations and RF-distress pathways were modelled using regularized partial correlation networks.

### **Results/Outcome**

The CA+ group had lower RFs and higher distress at both ages. All inter-personal RFs (e.g. friendships) showed stable mean levels between age 14 and 17, whereas five of seven intra-personal RFs (e.g. distress-tolerance) changed. All RF level changes were similar for adolescents with and without CA. Regarding RF interrelations we found that at age 14, but not at age 17, the RF network of the CA+ group was less positively connected, suggesting that the RFs are less likely to enhance each other than in the CA- group. Many negative direct pathways emerged between RFs and distress. Over time, the number of these pathways decreased from seven to five in the CA+, but increased from three to five in the CA- network. In the CA+ group these pathways may be less advantageous, as lower RFs are less likely to decrease higher distress.

### **Discussion/Conclusion**

Our results support several prior conjectures, as for example that lower and therefore disadvantageous levels of RFs are likely to be carried forward over time in adolescents with prior exposure to CA. Our findings also contribute novel hypotheses: for example, persistent lower RFs, higher distress, and potentially disadvantaged RF-distress pathways suggest that RFs in the CA+ group offer less protection against mental health problems. In sum, our findings may explain why exposure to CA has strong proximal effects, and is often found to have a lasting impact on mental health.



## **Parental Psychological Distress Interacting to Influence Child Internalizing Behaviors**

**Emily Bailey & Craig Marker, Mercer University, USA**

### **Introduction**

The lifetime prevalence of adolescents diagnosed with any mental illness is 49.5%, with 27.5% displaying severe impairment. Thus, it is important to find risk factors that contribute to the development and maintenance of these disorders. The present study used advanced longitudinal techniques to examine the interactions between parents and child associated with the onset and maintenance of childhood mental disorders.

One potential risk factor for youth is parental psychological distress. Previous research has predominantly emphasized maternal or paternal psychological distress separately as predisposing factors for emotional and behavioral issues in youth. The interaction of paternal and maternal psychopathology likely affects the child, but has been understudied.

### **Method/Technique**

Novel longitudinal statistical techniques explore how each parent influences each other, how they each influence the child, and how the child's internalizing problems influence the parents. This dynamic model can explore how the child's developmental trajectory in the context of the family dynamics. By emphasizing the processes between all members of a family, the role one plays in the functioning of others is highlighted. The current study utilized archival data from the NICHD SECCYD longitudinal data set, which assessed approximately 1,300 families and children from birth to age 15. The measures were assessed at multiple time points (i.e., age 6, 8, 10, 11, and 14).

To advance our understanding familial dynamics, trivariate latent difference score modeling examine the interdependence of each member within the family. With this modeling, the amount of one variable affects the change in another family member. We can determine how the previous amount of distress affects other family members.

### **Results/Outcome**

Models focused on maternal and paternal depression, anxiety, and anger and their impact on child internalizing behaviors. We found consistent results with mother anxiety significantly impacts child's internalizing behaviors despite differential paternal psychological distress across models. Mother and father's psychological distress tended to significantly influence each other, but was not always reciprocal across models. It appears that there is a differential impact on the child (and parents) depending on the psychological distress exhibited/highlighted in each model.

### **Discussion/Conclusion**

In the present study, the major results indicate that parental psychological distress differentially influences the child's internalizing behavior depending on the interaction between maternal and paternal psychological distress. Interventions focusing on the family system or shifting the focus to an overall reduction of psychological distress in the entire family unit. It may be important to look for certain psychological distress in the parent depending on the child's presenting problem.

Framing these results in terms of family systems theory supports the premise that family functions as an emotional unit. Most therapists agree that the identified patient often impacts family functioning as a whole. By examining reciprocal interactions in a triadic model, it becomes clear that parents can create problems that impact child functioning. It is rare that parents and other caregivers view the child's behavior as a reflection of their own functioning. However, the current results indicate that parental psychological distress differentially influences the child's internalizing behavior depending on the interaction between parental psychological distress.

## **Because You Had a Bad Day: A More Thorough Investigation into the General and Daily Relations Between Reactive Temperament, Emotion Regulation, and Depressive Symptoms in Youth**

**Marie-Lotte Van Beveren, Ghent University, Belgium**

**Sofie Kuppens, Erasmus University Rotterdam, the Netherlands**

**Benjamin Hankin, University of Illinois Urbana-Champaign, USA**

**Caroline Braet, Ghent University, Belgium**

### **Introduction**

Negative emotionality (NE) and positive emotionality (PE) have repeatedly shown to act as vulnerability factors for youth depression. Less research examined the mechanisms through which these temperament traits may differently confer vulnerability to depression.

### **Method/Technique**

Based on recent cognitive-affective models proposing emotion regulation as a key underlying mechanism, current study aimed to clarify the general and day-to-day relations among temperament, emotion regulation strategies, and depressive symptoms in Dutch-speaking youth (35% boys;  $M_{age} = 13.27$  years,  $SD = 1.98$ ) using a cross-sectional ( $n = 495$ ) and a 7-day daily diary design ( $n = 469$ ).

### **Results/Outcome**

Self-reported temperament, trait rumination, trait positive refocusing, and depressive symptoms were measured at baseline. Rumination, positive refocusing, and depressive symptoms were further assessed daily. Whereas results revealed that NE and PE interacted in predicting concurrent and daily depressive symptoms, the cross-sectional analyses provide preliminary evidence for the hypothesis that NE and PE each provide unique pathways for understanding vulnerability to depression. Additional analyses in the daily diary study showed NE to be significantly related to trajectories of rumination.

### **Discussion/Conclusion**

Results contribute to a more nuanced understanding of the associations between temperament, emotion regulation, and depressive symptoms in youth.

## **A Tailored, Web-Based Parenting Intervention to Reduce Risk for Adolescent Internalising Disorders: 12-Month Follow-up Outcomes**

**Mairead Cardamone-Breen, Monash University, Australia**

**Anthony Jorm, University of Melbourne, Australia**

**Ron Rapee, Macquarie University, Australia**

**Andrew Mackinnon, University of New South Wales, Australia**

**Katherine Lawrence, Shireen Mahtani & Marie Yap, Monash University, Australia**

### **Introduction**

Parents can play an important role in the prevention of mental disorders in their children. Research highlights a number of specific, modifiable parental risk and protective factors for adolescent depression and anxiety (i.e. internalising) disorders. However, there has been a lack of translation of this evidence into accessible preventive parenting programs. To address this gap, our team recently developed the Partners in Parenting (PiP) intervention—an individually-tailored, web-based program targeting evidence-based parenting risk and protective factors for adolescent internalising disorders.

### **Method/Technique**

This study presents 12-month follow-up data from a single-blind parallel-group randomised controlled trial comparing PIP to an active control condition. Parent-adolescent dyads (359 parents, 332 adolescents aged 12 to 15) were recruited primarily through schools and completed assessments of parenting and adolescent symptoms at baseline, and 3 and 12 months later. Parents in the intervention group received individually-tailored feedback outlining their parenting strengths and areas for improvement, followed by a series of up to nine interactive modules, recommended based on identified areas for improvement. Parents in the active control condition received access to five psychoeducational factsheets about adolescent development and mental health. Parents in both groups also received a 5-minute weekly phone call to encourage progress through their program.

### **Results/Outcome**

For the primary outcome of parent-report of parenting, parents in the intervention group showed significantly greater improvement from baseline to 3 and 12-month post-intervention compared to controls, with a medium effect size at 12-month follow-up (Cohen's  $d = 0.51$ ). There was also a trend towards a greater reduction in parent-reported adolescent depressive symptoms at 12-month follow-up, in the intervention group. Both groups reported reduction in anxiety symptoms over time (both parent- and child-report). No other significant group differences in adolescent symptoms were found.

### **Discussion/Conclusion**

These findings demonstrate that PiP can improve self-reported parenting practices up to 12-month follow-up. However, the improvements reported by parents were not perceived by their adolescents, and the effects of the intervention on adolescent internalising symptoms were inconclusive. Nonetheless, given the scalability and low cost of the intervention, PiP may be a sustainable program to empower and support parents during the challenging period of adolescence.

## **An Online Program to Improve Parenting Risk and Protective Factors for the Prevention of Child Anxiety and Depression: Results of a Randomised Controlled Trial**

**Wan Hua Sim & Madhawe Fernando, Monash University, Australia**

**Anthony Jorm, University of Melbourne, Australia**

**Katherine Lawrence & Marie BH Yap, Monash University, Australia**

### **Introduction**

Parents play an important role in reducing the risk of internalising problems in their children, but evidence-based preventive interventions for parents are lacking. This study aimed to examine the medium-term effects of the Parenting Resilient Kids (PaRK) program that was developed to prevent child anxiety and depression. We hypothesized that compared with active control group parents, intervention group parents would show greater improvement in parenting risk and protective factors from baseline to 12-month follow-up. We also predicted a greater reduction in symptoms of child depression and anxiety (co-primary outcomes), greater improvement in child and parent health-related quality of life and general family functioning (secondary outcomes) in the intervention group compared with the control group.

### **Method/Technique**

A two-arm randomised controlled trial was conducted with a community sample of 355 parents and 342 children, recruited primarily through schools across Australia (Australian New Zealand Clinical Trials Registry (ANZCTR): Trial ID ACTRN12616000621415). Parents and children were assessed at baseline, 3 months (postintervention) and 12 months later. Parents in the intervention group received PaRK, a tailored online parenting intervention that targets parenting factors associated with child's risk for depression and anxiety problems. The PaRK program comprises a tailored feedback report highlighting each parent's strengths and areas for improvement, followed by a set of interactive modules (up to 12) that is specifically recommended for each parent. Parents were also able to deselect recommended modules and/or select additional modules to further tailor the programme to their own perceived needs and interests. Parents in the active-control group received a standardized package of eight factsheets online about child development and well-being. Automated notifications, weekly calls and text messages were made to encourage parental engagement with the programme and the strategies recommended in both conditions. The primary outcome measures at each time point were parent-reported changes in parenting risk and protective factors, which were measured using the Parenting to Reduce Child Anxiety and Depression Scale (PaRCADS), and parent- and child-reported anxiety and depressive symptoms on the Revised Children's Anxiety and Depression Scale (RCADS). Secondary outcome measures were child- and parent-report of parenting behaviour, parent and child health-related quality of life, and parent reported general family functioning.

### **Results/Outcome**

At baseline, parents had a mean age of 41.34 years ( $SD = 5.22$ ) and children had a mean age of 9.79 years ( $SD = 1.05$ ). Nearly two-thirds of parents reported having experienced either past or current mental health problems, and about two-fifths of parents reported that their children had a mental health or behavioural diagnosis in the past. Between the two conditions at baseline, parents and children did not differ in their self-reported parenting practices, child anxiety and depressive symptoms, health-related quality of life, general family functioning and demographics. Data collection for 12-month follow-up is ongoing and will be completed by May 2019. Primary and secondary outcomes would be analysed using Mixed Model Repeated Measures (MMRM).

## **Discussion/Conclusion**

At the conference, we would compare and discuss the findings from baseline to 12-month follow-up. Implications for preventive interventions and web-based parenting programs will also be discussed.

## **Open Papers 10: Mechanisms in Social Anxiety**

**Chair: David Moscovitch, University of Waterloo and Centre for Mental Health Research, Canada**

### **The Social Consequences of Negative Beliefs in Social Anxiety Disorder**

**Corine Dijk, University of Amsterdam, the Netherlands**

**Marisol Voncken, University of Maastricht, the Netherlands**

#### **Introduction**

Cognitive models of social anxiety disorder indicate that negative beliefs about others evaluations are a key characteristic of this disorder. However, the social consequences of these beliefs are not often regarded. Research in the field of social psychology thought us, that believing someone dislikes you can make the believer act in such a way that the believe becomes true. Indeed, cumulative evidence suggests that breaches in likeability may be at stake in social anxiety disorder. The presentation will focus on three studies that examined the social consequences of socially anxious negative beliefs about others evaluations.

#### **Method/Technique**

In study 1, high (n=28) and low (n=43) socially anxious participants engaged in a social task with a confederate and rated their expectation of being liked by this confederate. Video-observers rated the likeability and self-disclosure of the participants. In study 2, negative (n=35) and positive (n=28) beliefs about others evaluations were induced in healthy participants using an interpretation bias modification paradigm. Next participants engaged in a structured social task that was designed to elicit self-disclosure. In study 3, social anxiety, negative beliefs and interpersonal problems (such as loneliness) were examined using an online survey (N=118).

#### **Results/Outcome**

Results of study 1 showed that, compared to the low anxious participants, the high anxious group expected to be liked less. The two groups showed no differences with regard to observer ratings of likeability. However, results did show that the higher the expectation of being liked, the less self-disclosure high anxious individuals displayed. Results of study 2 showed that negative interpretations could successfully be induced, but that this led to an opposite pattern than expected: the negatively induced group showed more self-disclosure in the subsequent social task. Results of study 3 showed that more socially anxious individuals indeed had more negative beliefs and more interpersonal problems. However, negative beliefs about others evaluations did not mediate the relationship between social anxiety and interpersonal problems.

#### **Discussion/Conclusion**

The studies show that, in social anxiety disorder, the relationship between negative beliefs and social problems is not clear. Both interaction studies showed surprising effects on self-disclosure: in socially anxious participants, especially positive beliefs led to less self-disclosure and in healthy participants inducing negative beliefs led to more self-disclosure. Also, the studies did not reveal any likeability problems in socially anxious individuals. Nevertheless, study 3 showed that socially anxious individuals experience interpersonal difficulties such as loneliness. However, again, there was no clear role of negative beliefs herein. To conclude, these studies show that socially anxious individuals experience interpersonal difficulties and that it is therefore important to consider this in therapy. However, although negative beliefs about others evaluations do affect interpersonal processes, their effects are not clear-cut.

### **Mechanisms of Change in Cognitive Behavior Therapy for Social Anxiety Disorder: The Role of Negative Self-Imagery, Judgment Bias, Self-Focused Attention, and Safety Behaviors**

**Jung-Kwang Ahn & Jung-Hye Kwon, Korea University, South Korea**

#### **Introduction**

Cognitive behavior therapy (CBT) for social anxiety disorder (SAD) has been proven to be efficacious and effective as an evidence-based therapy. However, little is known about the underlying mechanisms of clinical improvement during the therapy. In a previous study (Ahn & Kwon, 2018), focusing on modifying negative self-imagery (NSI) with various therapeutic components (e.g., repeated imagery rescripting and repeated video feedback) increased the effectiveness of group CBT for SAD. However, which aspects of NSI (negative emotion, negative impression, or vividness) could decrease social anxiety was not fully identified yet. The aim of the study was to investigate if change in the vividness, the emotion, and the impression of NSI mediated change in the level of anxiety during the course of group CBT for SAD. In addition, other proposed change processes were also investigated: judgment bias (estimated possibility and cost), safety behavior, and self-focused attention.

#### **Method/Technique**

Participants were 45 people who participated in 12-sessions group CBT which enhanced modifying NSI (Ahn & Kwon, 2018). Various aspects of NSI, such as vividness, negative emotions (shame, sadness, despair, anger, fear, and anxiety), and self-impression (awkward, odd, insufficient, unnatural, nervous, and trembled) were measured at every session using imagery interview. In addition, proposed change processes were also attained using self-report measures such as judgment bias, self-focused attention, and safety behaviors at each session.

#### **Results/Outcome**

The results showed that weekly changes of negative emotions and impression of NSI predicted subsequent weekly changes in social anxiety, but weekly changes of the vividness of NSI did not predict a subsequent weekly decrease of social anxiety. Taking all three aspects of NSI into the analysis, only changes in negative emotion predicted subsequent changes in social anxiety. Improvements in judgment bias, self-focused attention, and safety behavior also significantly predicted subsequent changes in social anxiety.

#### **Discussion/Conclusion**

The results indicate that CBT should especially target negative emotions of NSI to reduce social anxiety. Moreover, CBT should try to change judgment bias, self-focused attention, and safety behaviors as well.

## **Where to Look? Self-Focused Attention Instead of Negative Attentional Bias During a Public Speech Task in Socially Anxious Individuals**

**Muyu Lin, Ruhr University Bochum, Germany**

**Xu Wen & Mingyi Qian, Peking University, China**

**Dongjun He, Chengdu Medical College, China**

### **Introduction**

Both self-focused attention (SFA) and negative attention bias during anxiety evoking situations are commonly found within socially anxious individuals and proposed to maintain anxiety. Previous research, however, mainly compared attention distribution between two types of stimuli (e.g., external vs. internal, negative vs. neutral), whereas in daily situations usually a mix of stimuli is observed. This study aimed to investigate the attention distribution pattern across self-related stimuli and positive, neutral, and negative audience-feedback-related stimuli in individuals with high social anxiety (HSA) trait ( $n = 37$ ) or low social anxiety (LSA) traits ( $n = 30$ ) during high or low anxiety evoking conditions.

### **Method/Technique**

Pre-created videos with four types of moving curves (representing self-anxiety-status and feedback with three valences) were used as stimuli. In order to rule out the influence of the stimuli nature and to reveal the influence of state anxiety, participants watched the video stimuli three times, firstly without any knowledge of the meaning of the curves (baseline phase), then during an impromptu speech task (speech phase, high anxiety evoking condition), and once after the speech (re-watching phase, low anxiety evoking condition). Eye movements across the four stimuli types were recorded for all three phases.

### **Results/Outcome**

Data from the speech phase indicated that when depression was controlled, the HSA group focused on the self-related stimuli more than all feedback stimuli and more than the LSA group did. The LSA group also demonstrated greater fixation duration on positive and neutral stimuli than the HSA group. During the re-watching phase, no bias toward any type of stimuli was observed within the HSA group, whereas the LSA groups still spent longer time fixing on the positive and neutral stimuli more than the negative curves. Furthermore, neither differences between groups nor on the stimuli types were observed during the baseline, validating the patterns found in the later phases, that when a social meaning was attached to those curves, different preferences regarding the variant types of curves were showed.

### **Discussion/Conclusion**

In sum, our results supported that while individuals with HSA is characterized by SFA instead of negative bias during highly state anxious situation during high anxious condition, people with LSA show a positive bias, especially during low anxious condition. We suggested future studies to clarify whether it is purely SFA rather than negative bias, or together with a lack of positive bias, that maintains social anxiety.

## **The Impact of Exclusion and Over-Inclusion on Self-Descriptions: The Role of Interpersonal Motivations**

**Roy Azoulay, Moran Wilner & Eva Gilboa-Schechtman, Bar-Ilan University, Israel**

### **Introduction**

Humans are fundamentally social beings and much of human self-definition is in service of belongingness needs (Baumeister & Leary, 1995). Indeed, people tend to describe themselves primarily in terms of interdependent and independent qualities (Heine, et al., 1999). Such self-descriptions are malleable and affected by belongingness status (Ayduk et al., 2009). Moreover, interpersonal motivational constructs are related to such self-descriptions (Tuscherer, 2012). Importantly, the joint effects of changes in belongingness and interpersonal motivations are yet to be examined. To this end, we assessed interpersonal motivations and manipulated levels of belongingness to examine openly generated self-descriptions. We hypothesized that (a) when belongingness is challenged (exclusion) participants generate more interdependent self-descriptions (inter-SD, see Maner et al., 2007; Ren et al., 2013); (b) motivation-for-affiliation is related to a greater propensity generate inter-SD (Tuscherer, 2012); and (c) motivation-for-dominance would be associated with a greater propensity to generate inter-SD only during over-satiation of belongingness needs (over-inclusion, Pfundmair et al., 2015).

### **Method/Technique**

Participants ( $n=381$ , from an online labor market, Mturk) were randomly assigned to exclusion, inclusion or over-inclusion conditions in an online ball-tossing game (Cyberball) with three additional players (Williams et al., 2009). They received 2, 10 and 20 out of 30 ball-tosses in the exclusion, inclusion, and over-inclusion conditions, respectively. Following the completion of the Cyberball task, participants completed ten statements starting with the words "I am" (Markus, & Kitayama, 1991). Next, participants completed the Basic Needs Questionnaire (BNQ, Williams et al., 2000), and rated their mood. They then completed additional tasks (not reported here), filled the affiliation and dominance sub-scales of motivation questionnaire (PRF, Jackson, 1974), debriefed and thanked.

### **Results/Outcome**

Manipulation checks indicated significant differences between conditions on BNQ and mood ratings ( $F[378,2]=370$ ,  $p<0.0001$ ). The "I-am" statements generated by the participants were categorized using a pre-determined list of traits into an interdependent (e.g., friendly, honest), independent (e.g., creative, curious), or other (e.g., tall, bald) categories. To test our central hypotheses, we conducted a regression analysis with the percentage of inter-SD (out of all statements) as a dependent variable, and with condition, motivation-for-affiliation, motivation-for-dominance, as well as two condition by interpersonal motivations interactions as predictors. All three hypotheses were supported: (a) participants in the exclusion condition generated more inter-SD than did participants in inclusion or over-inclusion conditions ( $F[377,1]=26$ ,  $p<0.001$ ); (b) motivations-for-affiliation was associated with a greater number of inter-SD ( $F[374,4]=3.2$ ,  $p<0.05$ ); and (c) a significant condition by motivations-for-dominance interaction was observed ( $F[372,8]=4.3$ ,  $p<0.01$ ), such that a positive correlation between motivation-for-dominance and inter-SD was found only in the over-inclusion condition. No other main effects or interactions were found.

### **Discussion/Conclusion**

Our findings support and refine belongingness theory. Using an open, unconstrained self-generation task we found that the construal of the self depends jointly on the situational belongingness satiation, as well as on motivational variables. The implications of these findings for inter- and intra-personal processes in disorders with damaged self-constructs (e.g., depression social anxiety) are discussed.

## **Negative Self-Imagery in Social Anxiety Disorder: A Mixed Methods Investigation**

**Katherine Dobinson, Alice Norton & Maree Abbott, University of Sydney, Australia**

### **Introduction**

The current study aimed to investigate the content of negative self-imagery (NSI) in Social Anxiety Disorder (SAD). Further, we sought to explore the relationship between NSI and other maintaining variables, such as social cognitions.

### **Method/Technique**

Eighty-six individuals (83.7% female) with SAD completed self-report questionnaires and a semi-structured imagery interview. Interviews were investigated using thematic analysis. Quantitative image and memory variables (e.g., distress, vividness) were also coded and analysed. Mediation analyses were employed to explore the relationship between NSI and other variables of interest.

### **Results/Outcome**

Imagery characteristics supported extant findings, such that they appeared distorted, from an observer perspective, and inclusive of multiple sensory modalities. 'Unconditional beliefs' and 'Conditional beliefs' depicted overarching themes emerging from the data, outlining themes in NSI regarding self- and other-directed concepts. Mediation analyses demonstrated that imagery variables mediated the relationship between trait social anxiety and subsequent distress. Furthermore, social cognitions mediated the relationship between trait social anxiety and NSI.

### **Discussion/Conclusion**

Findings support the current knowledge base, in addition to providing novel insights regarding thematic content of NSI in SAD. Evidence that social cognitions mediate the relationship between trait social anxiety and NSI emphasises the clinical importance of targeting such cognitions. In summary, the current findings contribute novel insights that may inform clinical techniques, such as imagery-focussed interventions (e.g., imagery rescripting) in the treatment of SAD.

## **Open Papers 11: Mechanisms and Treatment of Eating Disorders**

**Chair: Glenn Waller, University of Sheffield, United Kingdom**

### **The Myth of 'Severe and Enduring Anorexia Nervosa': Evidence from Cognitive-Behavioural Therapy Outcomes**

**Glenn Waller, University of Sheffield, United Kingdom**

**Bronwyn Raykos, Centre for Clinical Interventions Perth, Australia**

**David Erceg-Hurn & Peter McEvoy, Centre for Clinical Interventions Perth and Curtin University, Australia**

**Anthea Fursland, Centre for Clinical Interventions and Western Australia Eating Disorders Outreach/Consultation Service, Australia**

### **Introduction**

It has been suggested that treatment for eating disorders (particularly anorexia nervosa) is less effective if the disorder is more severe or long-lasting. This proposal has resulted in suggestions that we should change focus from recovery to enhancing quality of life while remaining ill. However, there is no clear evidence that severe and enduring anorexia is a distinct category, or that duration and severity interfere with treatment outcomes. The present study examined whether Anorexia Nervosa (AN) illness severity or duration is associated with retention or treatment response in outpatient, enhanced cognitive-behavioural therapy (CBT-E).

### **Method/Technique**

Patients with a confirmed AN diagnosis (N = 134) completed measures of eating disorder symptoms and quality of life, and had their BMI objectively measured before, during, and after treatment. We evaluated whether illness severity or duration predicted treatment outcomes, using longitudinal regression models and categorical comparisons.

### **Results/Outcome**

Greater levels of illness severity and duration were not associated with poorer treatment outcomes. No 'cut-offs' could be found that resulted in poorer outcomes.

### **Discussion/Conclusion**

Patients with more severe or long-standing AN illness did just as well in CBT-E as any other patient starting treatment. Therefore, classifying individuals as "severe and enduring" appears to lack clinical utility in CBT-E. Clinicians should continue to administer evidence-supported treatments such as CBT-E for patients with AN, regardless of duration or severity of AN illness.

### **Social Functioning in Eating Disorders: an Evaluation of Theory of Mind, Empathy, Self-Other Distinction and Pro-Social Behaviour**

**Elisa Corsi, Janet Treasure & Valentina Cardì, King's College London, United Kingdom**

**Valdo Ricca, University of Florence, Italy**

### **Introduction**

The majority of individuals with eating disorder (ED) do not fully recover after treatment, with 25-33% developing a chronic disorder (WHO, 2004). The definition of recovery itself is still a matter of debate (Wonderlich et al. 2012). It is vital to acquire a better understanding of risks and maintaining factors in order to develop basic science-driven interventions. It has been theorised that social difficulties play an important role in the maintenance of ED symptoms (Westwood et al. 2015; Postorino et al. 2017). A lack of experimental research limits the conclusions that can be drawn on the contribution of specific, modifiable psychosocial factors on abnormal eating behaviours. This has implications for the development of personalised and targeted treatments. The goal of this project is to map the role that mentalization, theory of mind, empathy, prosocial behaviour and self-other perceptual differentiation have in the maintenance of ED symptoms.

### **Method/Technique**

We evaluated social functioning (SF) in 79 women with a lifetime diagnosis of ED and 68 healthy controls (HC) matched by age and gender. Mentalization was explored with Reflective Functioning Questionnaire and The Movie for the Assessment of Social Cognition (MASC), the only task of this study already used in ED. Empathy was measured with a task used here for the first time in its modified version (Empathy Accuracy Task). The self-other distinction was investigated with a task previously related to alexithymia, (The Imitation-Inhibition task), Pro-social behaviour was measured with The Prosocial Cyberball Game (PCG). In order to investigate SF in an evolutionary perspective, we

explored styles of attachment with the Relationship Questionnaire. Finally, the association of SF deficits with social isolation was evaluated with the Social and Emotional Loneliness Scale for Adults Short Form.

#### **Results/Outcome**

ED group had significantly lower levels of secure attachment style and higher levels of the fearful-avoidant and preoccupied ones ( $p < 0.001$ ). On average, the clinical group exhibited lower mentalization skills ( $p < 0.001$ ), showing a less genuine emotional and cognitive mentalization ( $p < 0.001$ ). The ED group also presented greater difficulties in identifying fear and anger ( $p < 0.05$ ). HC had a better ability to inhibit imitation: although not statistically significant, the effect of imitative compatibility was almost triple. The ED group identified less ( $p = .081$ ), however, during the prosocial game, the clinical group displayed a greater sensitivity to social exclusion compared to the HC ( $p = .027$ ). Finally, difficulties in SF were associated with the severity of the ED symptoms.

#### **Discussion/Conclusion**

These findings indicate that specific, modifiable, psychosocial factors are associated to the severity of ED symptoms and have the potential to inform the development of targeted trainings to remediate these difficulties. Indeed, with the implementation of longitudinal studies, we might be able to verify our hypothesis that patients who do not respond or respond partially to treatment are those with a more severe impairment of SF. This would lead an implementation of selective treatment with specific protocols based on a preliminary assessment of socio-cognitive deficits. This could strengthen the therapeutic alliance as a mediator between the improvement of SF and remission.

### **Eating Disorder Symptoms in People with Bipolar Disorder: An International Investigation**

**Claire McAulay, University of Sydney, Australia**

**Jonathan Mond, Centre for Rural Health, University of Tasmania, Australia**

**Eric van Furth, GGZ Rivierduinen, the Netherlands**

**Max de Leeuw, Leiden University Medical Centre, the Netherlands**

**Tim Outhred, Northern Sydney Local Health District, Australia**

**Gin Malhi & Stephen Touyz, University of Sydney, Australia**

#### **Introduction**

While there has been growing interest in comorbid eating disorders (EDs) presenting in bipolar disorder, little research to date has considered the characteristics of EDs in this group, and their association with physical health conditions such as obesity. The current study aimed to assess emotion regulation deficits, impulsivity and ED-specific cognitions with a view to identifying psychological correlates in this group that may influence intervention and management practices.

#### **Method/Technique**

A bi-national clinical sample of 192 people with Bipolar disorder (Australia=73, Netherlands=109) primarily sourced from tertiary health services completed a range of clinical and demographic questionnaires online. A further 9 participants in Sydney with the comorbidity participated in a follow-up qualitative interview.

#### **Results/Outcome**

Of those who completed the EDE-Q, 31 (19%) were identified as likely having a ED, most commonly OSFED (32%) or binge eating disorder (45%). Those with the comorbidity displayed significantly poorer emotion regulation ability, reduced QoL, and higher distress across both jurisdictions. For the Dutch sample, greater depressive symptoms and more frequent hospital admissions for depression occurred. However, few consistent diagnostic or medical predictors were identified overall. ED cognitions and emotion regulation ability, but not impulsivity, were significant predictors of ED symptoms, but the strength of these relationships differed according to study site, as did rates of health conditions, types of EDs identified, and rates of probable ED cases. The qualitative study revealed that for many consumers, bipolar illness episodes correlate with changes in eating habits, weight/shape concern, and BMI. Furthermore, no participants felt that their healthcare had adequately addressed their concerns with their eating, weight gain and overall physical health.

#### **Discussion/Conclusion**

These results suggest that while site-specific factors (such as prescribing practices and access to care) may influence the presentation of this clinical population, some features remain consistent – namely, the burden of this double diagnosis, elevated eating-disorder cognitions, and heightened difficulties with emotion regulation. The underdiagnosis of comorbid EDs in bipolar disorder, despite this group's regular contact with health professionals, is particularly alarming and warrants reflection. Clinicians and researchers alike should consider more assertive screening of this comorbidity as a significant contributing factor to disability. Geographical variations may exist in the presentation of this comorbidity, but this is likely driven by differing therapeutic practices. Future interventions could consider targeting cognitions and emotion regulation as per existing ED treatments, but in conjunction with a unified formulation approach that simultaneously addresses the management of comorbid bipolar disorder.

### **How Do Adolescents in Treatment for Their Eating Disorder Differ from Those Not Seeking Treatment?**

**Nora Trompeter & Kay Bussey, Macquarie University, Australia**

**Phillipa Hay, Western Sydney University, Australia**

**Chris Basten, Basten and Associates: Clinical Psychologists, Australia**

**Chris Thornton, The Redleaf Practice, Australia**

**Mandy Goldstein, Mandy Goldstein Psychology, Australia**

**Deborah Mitchison, Macquarie University, Australia**

#### **Introduction**

Mental health problems frequently occur during adolescence, however few adolescents seek mental health treatment, especially for eating disorders (Merikangas et al., 2010). It is therefore critical to identify factors distinguishing adolescents who present for treatment of an eating disorder from those who do not. Demographics, such as older age and female gender are most commonly associated with adolescents seeking treatment for eating disorders. However, there have been mixed findings in regards to body mass index (BMI), socio-economic status (SES), and migrant status. For psychological factors, higher severity and higher distress have been linked with treatment-seeking (Forrest et al., 2016). A limitation of previous research is the reliance on community samples, which are unlikely to be representative of adolescents presenting for treatment at eating disorder services. Thus, the current study aimed to compare non treatment-seeking adolescents with an

eating disorder recruited from the community with those who are presenting at eating disorder services for treatment on a range of demographic and psychological factors.

#### **Method/Technique**

Data were used from two distinct samples, a community sample of non-treatment seeking adolescents with an eating disorder ( $n = 1119$ ) and a clinical sample of treatment-seeking adolescents ( $n = 115$ ) in Australia. All participants completed self-report measures on demographics, the Eating Disorder Examination Questionnaire and Kessler psychological distress scale.

#### **Results/Outcome**

Univariate statistics of demographics revealed that in-treatment adolescents had a lower BMI, higher SES, were older, and more likely to be female compared to adolescents not in treatment. When all demographics were considered together in binary logistic regression analysis, the two groups no longer differed in regards to gender. In terms of psychological factors, in-treatment adolescents reported higher levels of weight/shape concerns, and more frequent disordered eating behaviours compared to adolescents not in treatment. No differences in psychological distress between groups were observed. Results from multivariate analysis of psychological factors revealed that when controlling for demographics, weight/shape concerns were significantly higher whereas psychological distress was significantly lower among in-treatment adolescents compared to those not in treatment. No significant difference between groups was observed for disordered eating behaviours, once other factors were controlled for.

#### **Discussion/Conclusion**

Discussion: This study found that in-treatment adolescents were older, from higher SES backgrounds, and had lower BMI compared to non-treatment seeking adolescents, even when controlling for other factors. When other factors were taken into account, the groups did not differ in gender. This suggests that while girls are more likely to present at eating disorder services for treatment, this might be due to other associated factors. Furthermore, in-treatment adolescents reported significantly higher weight/shape concerns compared to non-treatment seeking adolescents, indicating that their body image problems were more severe. However, controlling for other factors, in-treatment adolescents reported significantly lower psychological distress compared to non-treatment seeking adolescents. This might indicate that once adolescents enter treatment their immediate psychological distress decreases, while the eating disorder severity remained higher compared to their peers. Interestingly, frequency of eating disorder behaviours were not significantly different between the two groups, once other factors were controlled for. This suggests that attitudes rather than behaviours might predict treatment-seeking among adolescents.

Conclusion: In-treatment adolescents differed significantly from those not in treatment in terms of demographic and psychological factors, providing critical information for eating disorder services and increasing mental health literacy.

### **Adapting Selective Eating Disorder Prevention for a Universal Audience: Results from a School-Based Cluster Randomised Controlled Pilot Study**

Melissa Atkinson, University of Bath, United Kingdom

Jade Parnell & Philippa Diedrichs, University of the West of England, United Kingdom

#### **Introduction**

Universal prevention (delivered to whole population regardless of risk) for eating disorders is an important undertaking in order to capture everyone with potential for developing concerns. Effective efforts have largely focused on improving media literacy skills, evidencing success but with small effect sizes. In an effort to improve approaches to universal prevention, this pilot study adapted two existing evidence-based selective eating disorder prevention programmes (delivered to those already evidencing one or more risk factors) for universal school-based delivery. The interventions were based on the gold-standard cognitive dissonance-based approach, and a novel mindfulness-based approach previously shown to be effective among females, respectively. The aim was to evaluate their acceptability and efficacy when delivered to a universal mixed-sex adolescent sample, and when delivered by trained class teachers as a sustainable method of implementation.

#### **Method/Technique**

Students from three secondary schools ( $N=288$ , aged 13-15, 50.7% male) were randomised at the school level to receive one of the 5-lesson interventions (mindfulness,  $n=97$ ; dissonance,  $n=82$ ) or classes as usual (control,  $n=109$ ). Teachers received 3 hours of training. Self-report measures of key risk factors for eating disorders were completed at baseline, post-intervention and 1-month follow-up. Linear mixed model analyses assessed effects of condition, time and gender (and their interactions) over post-intervention and follow-up, controlling for baseline. Where gender moderation was significant, analyses were conducted separately for boys and girls.

#### **Results/Outcome**

Main effects of condition indicated sustained effects from post-intervention to 1-month follow-up on global body esteem (dissonance > control, Cohen's  $d = .30$ ) and positive affect (mindfulness > control,  $d = 0.27$ ) across all students, and for negative affect among girls only (mindfulness < control,  $d=0.23$ ). Additionally, for girls, condition x time interactions indicated differential effects of condition over time for body satisfaction (post-intervention: mindfulness > control,  $d=0.38$ ; follow-up: mindfulness > control,  $d=0.56$  & dissonance > control,  $d=0.59$ ) and appearance-ideal internalization (post-intervention: dissonance < control,  $d=0.30$ ; follow-up: mindfulness < control,  $d=0.42$  & dissonance < control,  $d=0.44$ ). At post-intervention, moderate acceptability was reported by students in both conditions, with mindfulness students reporting less homework compliance and less likelihood of continued use than dissonance students.

#### **Discussion/Conclusion**

These results are encouraging as they demonstrate a number of outcomes with larger effects than previous universal teacher-led prevention efforts. Consistent with gender differences in salience of body image concerns at this age, effects were stronger for girls compared to boys. Mindfulness appeared to be superior at targeting both affective and body image concerns, although effects emerging at follow-up indicates further support that mindfulness takes time to confer benefits. According to acceptability, efficacy of mindfulness may be further enhanced with efforts to increase engagement and compliance. The pilot sized sample (1 school per condition) limits generalizability. Overall, these findings indicate promise for delivering these programs universally, in a sustainable teacher-led format. Future research is required to further refine both interventions and evaluate using a larger sample.

## **Open Papers 12: Reducing Barriers to Treatment**

**Chair: Jürgen Margraf, Ruhr-Universität Bochum, Germany**

### **What Stops Young People from Seeking Professional Help for the Effects of Trauma? A Qualitative Analysis of Internet Forums**

**Sarah Bendall, Orygen: The National Centre of Excellence in Youth Mental Health, Australia**

**Katherine Truss, University of Melbourne, Australia**

**Carli Elinghaus, Orygen: The National Centre of Excellence in Youth Mental Health, Australia**

**Jocelyn Liao & Lisa Phillips, University of Melbourne, Australia**

#### **Introduction**

Exposure to traumas such as physical, sexual and emotional abuse is common in childhood and adolescence, and is associated with significant psychopathology including posttraumatic stress, mood and anxiety disorders, substance use, and personality disorders and psychosis. Adolescence and early adulthood is the peak age range in which mental disorders emerge and many people first disclose past trauma experiences to professionals during this age. Despite all this, many young people suffering trauma-related distress do not seek professional help. Researching barriers to help-seeking is difficult as young people not engaged with services are difficult to access. Internet forums provide a solution as young people may access internet forums but not traditional services and they often describe their experiences in detail online. This study aimed to identify barriers young people experienced to seeking help for trauma and its effects in offline contexts.

#### **Method/Technique**

This study has a qualitative, netnographic design, following the six-step LiLEDDa framework, developed for the analysis of online forums. Posts from 76 threads about trauma (176 participants) written in 2016 from five internet forums from Australia and the USA targeting young people were included and analysed by thematic analysis.

#### **Results/Outcome**

Two separate but interrelated types of barriers to help-seeking emerged: 1) barriers within the young person and 2) structural and systemic barriers. Personal barriers aligned with five key themes: questioning the validity of the trauma response; negative beliefs about the self; fears about a negative reaction in others; difficulties trusting others; and a lack of personal readiness. Systemic barriers included four key themes: difficulties with service access; lack of trauma disclosure to professionals; unsupportive professional relationships; and unhelpful past experiences.

#### **Discussion/Conclusion**

These findings point to ways in which health services and public health messaging can better meet the needs of young people who have experienced trauma. Rationing of mental health services, particularly limited sessions, exacerbate the reluctance of an already hesitant group to seek much-needed professional help. Moreover, trauma-exposed young people appear to have very specific needs in the therapeutic relationship whereby abrupt changes and inconsistency result in a lack of trust and ultimately a lack of disclosure. Results also showed how important it is that trauma-exposed young people have control and agency in the therapeutic relationship.

This study also highlighted the extent of barriers to help-seeking within young people themselves, which prevented them from starting the process of help-seeking. This suggests that more work is needed to provide public education that would reach victims of trauma and those who support them about the dynamics and complexities of trauma and the trauma response. In conclusion, trauma-exposed young people experience numerous barriers to help seeking, many of which could be reduced by more trauma-informed health services.

### **Pilot Randomized Controlled Trial of a Spanish-Language Behavioral Activation Mobile App (¡Aptivate!) for the Treatment of Depressive Symptoms Among United States Latinx Adults with Limited English Proficiency**

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**Cristina Risco, University of Maryland, USA**

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#### **Introduction**

United States Latinx adults experience higher rates of depressive symptoms as compared to non-Latinx Whites, but are less likely to engage in treatment. Language proficiency is one key barrier to the receipt of evidence-based mental health treatment among Latinx adults.

Compared to their English proficient counterparts, Latinx adults with limited English proficiency (LEP) are significantly less likely to receive mental health treatment. In order to address the need for evidence-based, disseminable depression treatment options for United States Latinx Adults with LEP, our team developed a Spanish-language self-help mobile app (¡Aptivate!) informed by the Brief Behavioral Activation Treatment for Depression. The primary aims of the current study were to: 1) examine feasibility and uptake of ¡Aptivate! among depressed Latinx adults with LEP and 2) preliminarily examine the efficacy of ¡Aptivate! for the treatment of depression among this group.

#### **Method/Technique**

Participants (N=42, 66.7% female, Age (M(SD))=36.1(11.4)) with elevated depressive symptoms (BDI-II=31.2(9.7)) were recruited between September 2017 and June 2018 locally and nationwide. Following informed consent, participants were randomized to: 1) ¡Aptivate!, 2) an active control Spanish-language app ("iCouch CBT"), or 3) Treatment As Usual (i.e., no app; inactive control). Participants in both app groups were instructed to utilize the app regularly, at least once per day, for 8 weeks. All participants completed weekly follow-up assessments online remotely for 8 weeks. Assessments clustered around depression assessed via the Beck Depression Inventory-II (BDI-II) Spanish language version and treatment utilization assessed via app analytics. App analytics were available only for ¡Aptivate! participants.

#### **Results/Outcome**

All ¡Aptivate! participants used the app at least once during the trial, 81.8% of participants used the app >8 times (i.e., >1x/week), and 36.4% of participants used the app >56 times (i.e., >1x/day). Participants on average had 61.4(91.7) app sessions throughout the 8-week trial duration, spent 87.7(63.1) seconds using the app per session, and spent 65.8(82.8) minutes using the app in total throughout the trial. Participants created on average 4.7(3.5) unique values, 11.8(17.0) activities across values, and completed 21.7(45.6) activities. Weekly



retention, defined as any app use within each week following enrollment, was strong: 72.7% and 50% of participants continued to use the app at 1- and 2- months post-enrollment, respectively. GEE models controlling for baseline depression, and local/national recruitment, indicated a significant interaction between time and treatment ( $X^2=35.1$ ,  $df=14$ ,  $p=.001$ ), such that ¡Aptivate! participants reported significantly lower depressive symptoms over time than TAU participants (¡Aptivate! vs. TAU mean difference=-5.4(2.1),  $p=0.01$ ). Depressive symptoms did not differ on average across time between the iCouch and TAU conditions, nor between iCouch and ¡Aptivate!. From pre- to post-treatment, ¡Aptivate! participants had a 13.8(12.3) point decrease in depressive symptoms, iCouch participants had a 11.3(8.3) point decrease, and TAU participants had a 8.0(5.4) point decrease. At study end, 42.1% of ¡Aptivate!, 25.0% of iCouch, and 16.7% of TAU participants had less than minimal symptoms of depression (i.e., BDI-II <13).

#### **Discussion/Conclusion**

Results preliminarily indicate feasibility and efficacy of ¡Aptivate! for the treatment of depressive symptoms among United States Latinx adults with LEP. Future trials should consider larger scale examination of ¡Aptivate! efficacy and effectiveness and examination of treatment outcomes beyond the 8-week window studied herein.

### **Brief Cognitive-Behavioural Group Therapy for Mexican Homeless Girls**

Susana Castaños-Cervantes, La Salle University, Mexico

#### **Introduction**

Homelessness is a worldwide phenomenon associated with mental health disorders, and risk behaviors (Marcal, 2017), having long-term deleterious effects on well-being and on society. Mexico City is the seventh place worldwide with the highest homeless population (Jegade, 2018), and the fifth one with extremely high homeless population (Prime, 2014). Nonetheless, policy actions that can successfully address homelessness have not been planned nor developed (Pinacho, 2017). Mexican homeless girls are mainly characterized by a low self-concept and self-esteem, by a diminished self-efficacy, a decreased perceived subjective well-being, and by the presence of anxiety, depression, and aggression. Also, they have difficulties in behaving assertively, and they use dysfunctional emotion regulation strategies to control their emotions (Castaños et al., 2017). Thus, some of the main characteristics of homeless girls are the presence of anxiety and depression, a low subjective well-being, and the lack of functional emotion regulation strategies and assertive skills. Although evidence has revealed that these factors are essential in shaping mental health, few studies have addressed these variables in homeless populations. Moreover, these factors have received very limited attention in the intervention research literature with this group. Yet, less is known in homeless girls, common circumstance in societies with a predominantly male orientation that discriminate and exclude women. These circumstances exact a huge toll on individuals, families, and society. This study examined the preliminary efficacy of a brief cognitive-behavioral group therapy tailored to a group of Mexican homeless girls.

#### **Method/Technique**

The intervention targeted subjective well-being and these determinants: symptoms of anxiety, symptoms of depression, assertive behaviors and functional emotion regulation skills. These factors were assessed with self-report questionnaires developed in a previous study specifically for this preliminary intervention (Castaños et al., 2016). 84 homeless girls between ages 9-17 years old were recruited using a purposive sampling method from non-governmental organizations of Mexico City that serve homeless youth as their primary function. They were randomly allocated to treatment groups. 42 girls received the cognitive-behavioural intervention (CBT) ( $M[SD]=11.62[2.036]$ ) and 42 received the treatment as usual (TAU) ( $M[SD]=11.9[1.95]$ ).

#### **Results/Outcome**

Results revealed statistically significant differences in the CBT group in all variables. Treatment effects ranged from moderate to large according to Cohen's d. Symptoms of anxiety and depression, and dysfunctional emotion regulation strategies decreased. Assertive skills, functional emotion regulation strategies, and subjective well-being increased. Outcomes were clinically relevant using Jacobson's and Truax (1991) Reliable Change Index. At 2-month follow-up, participants showed improvement from pre-treatment on all measures with treatment effects that ranged from moderate to large according to Eta Coefficient.

#### **Discussion/Conclusion**

The current study provides unique findings in terms of a promising preliminary intervention that helps restore homeless girls to a healthier social-emotional developmental trajectory especially in the context of Latin American cities. As a result, CBT seems to be effective for inducing emotional and behavioral changes in homeless girls.

### **The Effect of Group Cognitive Behavioural Therapy on Depression and Anxiety Among Orphaned Adolescents Living in Sheltered Homes in Selangor, Malaysia**

Firdaus Mukhtar, Wai-Eng Ding, Munn-Sann Lye & Hamidin Awang, Universiti Pertanian Malaysia, Malaysia

#### **Introduction**

Studies in worldwide and in Malaysia have shown that adolescents living in the institutionalized care demonstrated significant depression and anxiety. Research of cognitive behaviour therapy and access to this treatment are limited in Malaysia.

#### **Method/Technique**

This randomised control study examined the effects of group cognitive behaviour therapy on depression and anxiety of orphaned adolescents living in the sheltered homes in Malaysia. One hundred thirty-nine participants were randomly allocated to either group cognitive behaviour therapy (gCBT) ( $n=71$ ) or waitlist control (WC) ( $n=68$ ). The intervention group received 8 sessions of gCBT; the waitlist control group did not participate in the program. Depression and anxiety symptoms were measured on the Beck Depression Inventory-Malay (BDI-Malay) and Beck Anxiety Inventory-Malay (BAI-Malay) respectively. Data gathered was analyzed using the generalized linear mixed model. Depression and anxiety symptoms of the participants were measured at 6 time-intervals- pre-, mid-, post-intervention, as well as 1-month, 3-month and 6-month follow-up.

#### **Results/Outcome**

The gCBT group showed significantly symptom reduction of depression and anxiety over the waitlist control. All intervention gains were maintained at 6-month follow-up.

#### **Discussion/Conclusion**

The gCBT is effective in treating depression and anxiety among orphaned adolescents living in the sheltered homes in Malaysia. The implications of this finding are discussed especially in Malaysia.

## **Treating Anxiety and Social Deficits in Children with Autism Spectrum Disorder in Two Schools in Nairobi, Kenya**

**Niceta Ireri, Africa International University, Kenya**

**Susan White, The University of Alabama, USA**

**Anne Mbwayo, University of Nairobi, Kenya**

### **Introduction**

Anxiety in children and adolescents with Autism Spectrum Disorder (ASD) contributes to their functional impairment. We evaluated a cognitive-behavioral program for anxiety and social deficits in children and adolescents with ASD in two schools in Nairobi City, Kenya.

### **Method/Technique**

Parents and teachers of 40 children and adolescents (5 – 21 years) with ASD participated, randomized by school. The two schools were randomly assigned to either intervention (n = 20) or control (n = 20).

### **Results/Outcome**

There was a significant improvement in ASD severity as well as anxiety within the treatment group, which was not seen in the control group.

### **Discussion/Conclusion**

These findings support the expansion of treatments for ASD core deficits and secondary problems in both and adolescents with ASD in developing countries.

## **Open Papers 13: New Approaches in Obsessive-Compulsive Disorders**

**Chair: Barbara Cludius, Ludwig Maximilian University of Munich, Germany**

### **First, Do No Harm: Exploring the Relationship between Health Practitioner Metacognitive Beliefs and Their Responses to Postpartum Obsessions of Infant Harm**

**Melissa Mulcahy & Clare Rees, Curtin University, Australia**

**Megan Galbally, Murdoch University, Australia**

**Rebecca Anderson, Curtin University, Australia**

### **Introduction**

Women in the postpartum period are at increased risk of developing OCD when compared with other life periods. Postpartum OCD is mostly commonly characterised by intrusive and highly distressing thoughts of accidental and/or deliberate harm to one's baby, and overt and covert attempts to avoid the same. While mother and health practitioner alike may find the content of such thoughts difficult to discuss, harm obsessions are not associated with risk of harm to the baby. Indeed, health practitioner misappraisal of postpartum OCD symptoms may lead to misguided concerns about child safety, and inappropriate interventions that may exacerbate the mother's distress and symptoms. The aim of this study was to explore factors that may influence healthcare providers' responses to postpartum symptoms of OCD, specifically, their metacognitive beliefs and appraisals about intrusive thoughts.

### **Method/Technique**

Ninety-four health professionals and student practitioners from a range of disciplines who self-identified as working within the perinatal health field in Australia, New Zealand, the United States of America, and the United Kingdom, were recruited to participate in an online survey investigating professional knowledge and practice in perinatal mental health. The survey consisted of a series of questions focused on a hypothetical case vignette describing a common symptom of postpartum OCD, namely, intrusive ego-dystonic thoughts of deliberate infant harm. Participants also completed two measures of OCD-related metacognitive beliefs, the Thought Fusion Instrument (Wells, Gwilliam, & Cartwright-Hatton, 2001) and the 'Thought Importance and Control' subscale of the Obsessive-Beliefs Questionnaire – Short Form (Moulding et al., 2011), as well as questions about their relevant professional training and experience.

### **Results/Outcome**

The results indicated that practitioner Thought Fusion and Thought Importance and Control beliefs (i.e., unhelpful metacognitive beliefs) were inversely related to the correct identification of obsessive-compulsive symptoms as the primary presenting issue in the hypothetical case vignette, as well as with more unhelpful, and less neutral, metacognitive appraisals of postpartum harm obsessions. Both metacognitive beliefs and negative, but not neutral, metacognitive appraisals of postpartum harm obsessions, were significantly and positively associated with greater anticipated anxiety in responding to the hypothetical scenario. Elevated Thought Fusion and Thought Importance and Control beliefs were also correlated with endorsement of inappropriate and potentially aggravating clinical interventions including comprehensive risk assessment, referral to child protective services, and not allowing the mother to be alone with the child.

### **Discussion/Conclusion**

Practitioners' responses to obsessions of infant harm, a common clinical feature of postpartum OCD, were largely consistent with their own metacognitive beliefs about intrusive thoughts. As higher endorsement of unhelpful metacognitions was associated with increased endorsement of unhelpful health practitioner actions, implications for clinical training and supervision will be discussed.

### **Disgust Sensitivity and Contamination Sensitivity in Urge to Wash After Being Exposed to Contamination Provoking Virtual Environment: A Moderated Mediation Model**

**Ezgi Trak, Ufuk Çelikan, Mûjgan İnöz, Hacettepe University, Turkey**

### **Introduction**

In recent years, virtual reality (VR) has begun to be explored as a tool for the evaluation and treatment of various conditions including anxiety disorders, post-traumatic stress disorder and OCD. Previous studies have indicated that disgust sensitivity and the feeling of disgust were associated with excessive hand washing in individuals with high contamination sensitivity. The aim of the present study was to examine the mediator role of the disgust and contamination sensitivity in the relationship between disgust sensitivity and the need to wash hands, using a moderated mediation model.

### **Method/Technique**

In the first stage of the study, 677 college students were asked to fill out self-report PADUA Inventory and high and low contamination sensitivity groups were formed using the PADUA Inventory scores. In the second stage, participants in the high (N=33, M=28.28, SD=3.53) and low contamination sensitivity groups (N=33, M=2.88, SD=1.36) completed self-report Disgust Scale-Revised and Immersive Tendencies Questionnaire before the administration of four different virtual scenarios, compromising of 12 tasks in total which were gradually increasing

in overall dirtiness. After the completion of each task, participants rated the level of disgust and the need to wash their hands. Finally, they filled out the Presence Questionnaire.

#### **Results/Outcome**

In order to calculate indirect effects for the moderated mediation model, Model 14 of the PROCESS macro for SPSS was used. Path modeling analysis revealed that the level of disgust provoked by VR tasks mediated the relationship between disgust sensitivity and the need to wash hands for all 4 scenarios. Moreover, contamination sensitivity moderated the relationship between level of disgust and the urge to wash hands, participants with high contamination sensitivity reported a stronger need for washing their hands after the exposure to the dirty virtual environment.

#### **Discussion/Conclusion**

These findings indicated that disgust sensitivity and contamination sensitivity relate to the need to wash hands in VR scenarios with varying degrees of dirtiness. Results provided further support for the previous studies showing that VR environments can be used to provoke disgust. Implications of the findings for the use of VR as a tool for exposure therapy will be discussed.

### **Best Not to Look: Attention to Threat Cues During a Checking Task**

**Olivia Merritt & Christine Purdon, University of Waterloo, Canada**

#### **Introduction**

Individuals with obsessive-compulsive disorder (OCD) can find it very challenging to stop their checking compulsions, but we do not fully understand why checking persists. One theory is that those with OCD pay more attention to potentially threatening items in their environment, making them more susceptible to obsessions and compulsions (Irak & Flament, 2009). In contrast, a recent study by Bucarelli and Purdon (2016) found that those with OCD paid less attention to threat than an anxious control group. The authors hypothesized that perhaps those with OCD were avoiding threat items. However, this possibility has not yet been empirically explored.

#### **Method/Technique**

We explored attention and avoidance in OCD using portable eye tracking technology. Participants (N=135) were asked to use a functional stove to boil a kettle, and then leave a pot of dry rice on the stove as they left the lab kitchen. Participants then completed ratings of certainty about the check, as well as retrospective ratings of their desire to attend to, and avoid, flammable and non-flammable items around the stove. We compared participants high and low in responsibility/checking concerns on eye-tracking data for attention to threat (flammable) and neutral (non-flammable) items around the stove.

#### **Results/Outcome**

Approximately 93% of our “checking” group met the recommended cutoff score known to best differentiate those with OCD from a non-clinical sample (Abramowitz et al., 2010). Preliminary data analysis shows that “checkers” report wanting to avoid threat more than a control group,  $t(31.237) = -2.542$ ,  $p = .016$ ,  $d = 0.684$ . Interestingly, in the checking group, but not the control group, self-rated desire to attend to threat was associated with decreased certainty after the task [ $r(\text{checkers}) = -.401$ ,  $p = .031$ ;  $r(\text{controls}) = .015$ ,  $p = .937$ ]. Findings from our eye-tracking data will also be presented.

#### **Discussion/Conclusion**

This data provides an in-vivo account of how people manage potential threat. Those with harm concerns seem to want to avoid threat. In addition, when desire to attend to threat is high, so too is uncertainty about the check.

### **Is Glutamate Associated with Fear Extinction and Cognitive Behavior Therapy Outcome in OCD?**

**Miquel A. Fullana, Hospital Clinic Barcelona, Spain**

**Monica Gimenez, Marta Cano, Ignacio Martínez-Zalacain, Pino Alonso, Cinto Segalas & Carles Soriano-Mas, Bellvitge University Hospital and Bellvitge Biomedical Research Institute-IDIBE, Spain**

#### **Introduction**

Cognitive-behavioral therapy (CBT) including exposure and response prevention is a well-established treatment for obsessive-compulsive disorder (OCD) and is based on the principles of fear extinction. Fear extinction is linked to structural and functional variability in the ventromedial prefrontal cortex (vmPFC) and has been consistently associated with glutamate neurotransmission.

#### **Method/Technique**

The relationship between vmPFC glutamate and fear extinction and its effects on CBT outcome have not yet been explored in adults with OCD. We assessed glutamate levels in the vmPFC using 3T magnetic resonance spectroscopy, and fear extinction (learning and recall) using skin conductance responses during a two-day experimental paradigm in OCD patients ( $n=17$ ) and in healthy controls (HC;  $n=13$ ). Obsessive-compulsive patients ( $n=12$ ) then received manualized CBT.

#### **Results/Outcome**

Glutamate in the vmPFC was negatively associated with fear extinction recall and positively associated with CBT outcome (with higher glutamate levels predicting a better outcome) in OCD patients. Glutamate levels in the vmPFC in OCD patients were not significantly different from those in HC, and were not associated with OCD severity.

#### **Discussion/Conclusion**

Our results suggest that glutamate in the vmPFC is associated with fear extinction recall and CBT outcome in adult OCD patients.

### **Exposure Therapy in a Virtual Environment**

**Alison Cullen & Murat Yucel, Monash University, Australia**

**Nathan Dowling, The Melbourne Clinic, Australia**

**Rebecca Segrave & Adrian Carter, Monash University, Australia**

**Leonardo Fontenelle, Federal University of Rio de Janeiro, Brazil**

#### **Introduction**

Opportunities and challenges of applying Virtual Reality (VR) in psychology have been widely theorized, however practical applications remain scarce (Bohil et al., 2011; Foreman, 2010; Riva, 2005). Virtual environments for anxiety and phobia exposure therapy are emerging (Emmelkamp, Bruynzeel, Drost, & van der Mast, 2001; Kim, Cha, Kim, Kim, & Jon, 2008; Krijn, Emmelkamp, Olafsson, & Biemond, 2004; Parsons & Rizzo, 2008). Similar opportunities exist in OCD exposure and response prevention (ERP) therapy. Current barriers to OCD ERP

efficacy include difficulty simulating intrusive thoughts using imaginal methods, high attrition rates, and poor adherence to homework tasks (Lind, Boschen, & Morrissey, 2013). VR is ideally positioned to address these limitations. Specifically, VR could facilitate the presentation of stimuli that are challenging to imagine or too difficult for real-world exposure. For example, a virtual public bathroom would allow the client to practice exposures with the clinician's guidance, heightening ecological validity in the therapy office. The increasing availability of in-home VR systems may also make self-directed ERP more achievable for clients. In order to realise these theoretical benefits, systems that are flexible on a patient-by-patient basis are required. Our research aims to design and validate a virtual exposure environment for individuals with contamination-based OCD.

#### **Method/Technique**

We created an OCD VR system, in which participants enter a virtual kitchen or bathroom, with a variable degree of contamination. An exposure hierarchy is collaboratively determined with the clinician, and participants decide when to progress to a new task, for example, using a hand-dryer. Each event (receiving the instruction, completing the task) is real-time marked in a psychophysiological recording (ECG, respiration, skin conductance). This dynamic capturing provides an outcome measure that is objective, and can be compared to corresponding traditional real-world exposures to examine validity of VR as a therapeutic tool. Through partnership with the major OCD treatment clinic in Australia (The Melbourne Clinic) we recruit 30 participants. Participants completed two counterbalanced sessions on the same day, of traditional real-world and virtual ERP. Tasks are directly matched across real and virtual for each participant, to allow for comparison. Throughout the sessions, objective and subjective measures of symptom severity and distress were obtained.

#### **Results/Outcome**

We provide recommendations on how to design a CBT-specialised VR system, and data from the validation study. This includes trait measures (including anxiety severity, impulsivity, OCD symptom profiles, intolerance of uncertainty, treatment readiness, self-efficacy), which may assist in determining appropriate clients for VR therapy. The real and virtual ERP tasks were compared on the objective psychophysiological measures, and subjective psychological reports (e.g. subjective units of distress). Therapeutic engagement measures across sessions are also reported, providing insights to any barrier technology may pose to therapeutic alliance.

#### **Discussion/Conclusion**

In conclusion, the importance of inter-site and international collaborations in this area is highlighted. These effective partnerships with clinical, research, and industry groups are crucial to creating customisable, immersive VR systems. We conclude with summarizing the potential utility of VR systems, such as ours, in clinical settings for OCD.

### **Open Papers 14: Trauma and Post Traumatic Stress Disorder Amongst Refugees**

**Chair: Ulrich Stangier, Goethe-Universität Frankfurt, Germany**

#### **Psychotherapy for Post-Traumatic Stress Disorder and Depression in Young and Adult Refugees. A Meta-Analysis of Randomized Controlled Trials**

**Ahlke Kip, Heinz Holling & Nexhmedin Morina, Westfälische Wilhelms-Universität Münster, Germany**

##### **Introduction**

The global refugee population remains at a record high with millions of survivors of mass violence being forcibly displaced. A large proportion of refugees suffers from post-traumatic stress disorder (PTSD) and/or depression.

##### **Method/Technique**

We conducted a meta-analysis of randomized controlled trials (RCTs) to determine the efficacy of psychotherapy for PTSD and/or depression in young and adult refugees. Prediction intervals were calculated to consider the high heterogeneity in effect sizes across studies and to provide recommendations for clinical practice.

##### **Results/Outcome**

Our systematic search in Medline, PsycINFO, and PILOTS databases resulted in 13 RCTs, of which 11 were conducted with adult refugees (1,103 participants) and two with young refugees (50 participants). Results showed that active treatments for adult PTSD yielded a large aggregated pre-post effect size ( $g = 1.57$ ; 95% CI = [0.97; 2.18]) and a large effect size at post-treatment when compared to passive and active control conditions ( $g = 0.72$ ; 95% CI = [0.07; 1.38]). Effect sizes were similar for pre-treatment vs. follow-up and in comparison to control conditions at follow-up. Active treatments for adult depression also produced large pre-post ( $g = 1.17$ ; 95% CI = [0.54; 1.81]) and controlled effect sizes ( $g = 0.87$ ; 95% CI = [0.31; 1.42]). Effect sizes for pre-treatment vs. follow-up for depression were also large and in comparison to control conditions at follow-up. Prediction intervals suggest likely positive treatment effects regarding changes from pre-assessment to follow-up for both PTSD and depression in prospective settings. The low number of included trials limited subgroup analyses and analyses on moderating factors. Narrative exposure therapy produced large effect sizes for uncontrolled effects and PTSD outcome, but failed to achieve significance for depression outcome when compared to control groups. Pre-post effects across waitlist conditions showed that depression symptoms did not change over time and PTSD symptoms increased without treatment.

##### **Discussion/Conclusion**

The findings suggest that psychological interventions can effectively reduce symptoms of both PTSD and depression in adult refugees. Treatment effects further appear to persist over a period of 12 months after the last treatment session. However, there is a lack of psychotherapy research with young refugees with PTSD and/or depression.

#### **Effect of Non Clinical Application of Cognitive Behavioural Therapy on Emotional and Mental Health Among Child-Victims of Rape**

**Vera Victor-Aigbodion, Dominic Ngwoke & Charity Onyishi, University of Nigeria, Nigeria**

**Rubina Setlhare-Kajee, University of Johannesburg, South Africa**

##### **Introduction**

Background: Child victims of rape are at an increased risk for developing emotional and mental health problems such as depression and anxiety. During the intervention process, psychologists generally use Cognitive Behavioural Therapy (CBT). However, the reality of African states is that a majority of the people going through this ordeal cannot afford such services, thus the need to explore alternative approaches that can be used by other mental health providers, yielding the same healing results. This paper presents an evaluation of a non-clinical application of CBT, known as Cognitive Behavioural Coaching (CBC). This 6 sessions approach is used by non-specialist psychologists and

addresses common emotional and mental health issues among child-victims of rape. The objectives of this study was to evaluate the effect of CBC on the emotional and mental health among child-victims of rape.

#### **Method/Technique**

Methods: Informed by community consultations, a non-clinical application of CBT has been translated and adapted to the local context of CBC. A pre-test-post-test randomised control group design was carried out in the catchment areas of the three local health care facilities in Benin city, Edo state, Nigeria.

Participants: The participants in the study were 54 child-rape female victims with high emotional and mental health distress. Data were collected using self-report questionnaires. Participants were allocated to either the treatment (n=28[59.1%]) or the waitlist control (n=26[48.1%]) groups respectively. A CBC manual was adapted to prepare six sessions of the coaching plan used to deliver the intervention. The researchers statistically analysed the data collected at three time points with repeated measures of analysis of variance.

#### **Results/Outcome**

Results: At baseline, the emotional and mental health distress of participants were high. However, Post-treatment and 3 months post-treatment follow-up assessment of general emotional and mental health problems of child victims of rape showed that the CBC intervention was efficacious in reducing the level of emotional and mental health distress among participants assigned to the treatment group, compared to those assigned to the wait-listed control group at post-treatment and follow-up meetings.

#### **Discussion/Conclusion**

Conclusion: This study demonstrated the effectiveness of a non-clinical application of CBT in reducing the level of emotional and mental health distress in a sample of child rape victims in Nigeria. Non-specialist psychologists, Occupational health workers and other clinicians with sufficient knowledge of cognitive behavioural coaching framework are urged to employ this approach in assisting other rape victims in managing emotional and mental health distress.

Keywords: Cognitive behavioural therapy, cognitive behavioural coaching, emotional and mental health, and child-victim of rape

### **E-Mental-Health Care for Traumatized Syrian Refugees in Germany: Development and Evaluation of the Smartphone-App “SANADAK”**

**Anna Renner, Rahel Hoffmann, Michaela Nagl & Susanne Röhr, University of Leipzig, Germany**

**Hans-Helmut König, University of Hamburg-Eppendorf, Germany**

**Steffi Riedel-Heller & Anette Kersting, University of Leipzig, Germany**

#### **Introduction**

Syrians have been the largest group of refugees in Germany since 2014. Refugees are exposed to various risks along the migration process and bear an increased risk of mental disorders. High prevalence of PTSD (34%-83%) and depression (37%) were found in recent studies among Syrian war-refugees. Syrian refugees face major challenges to meet their mental health care needs in Germany due to institutional and personal barriers. The aim of the study is to develop and evaluate an Arabic-language self-management app for traumatized Syrian refugees in Germany.

#### **Method/Technique**

The interactive app “SANADAK”, containing evidence-based cognitive-behavioral and resource-oriented techniques, was developed based on a comprehensive literature review. Focus group discussions with Syrian refugees were conducted to assess and implement the needs of the target group and to ensure culture-sensitivity. The app has a modular design, containing psychoeducation, interactive exercises, self-assessments and individualized feedback. The app is currently evaluated in an RCT (pre- post-assessment, 3-month follow-up) testing 4-week access to the app against an Arabic-language information brochure. The main outcome is posttraumatic stress. Further, several secondary outcomes (e.g., depression, anxiety, quality of life, posttraumatic growth) and the cost-effectiveness are evaluated.

#### **Results/Outcome**

RCT results will be available after March 2020. The presentation will give a detailed insight into the conceptual development and contents of the app, and an overview on the RCT study design.

#### **Discussion/Conclusion**

The results of the study will provide evidence, whether our self-management app can successfully reduce posttraumatic stress among Syrian refugees. After a positive evaluation, the app will be publicly available, contributing to a sub-threshold access for Syrian refugees to mental health care in Germany.

### **Investigating the Relationship Between Distinctive Patterns of Emotion Regulation, Trauma Exposure and Psychopathology Among Refugees Resettled in Australia: A Latent Class Analysis**

**Philippa Specker & Angela Nickerson, University of New South Wales, Australia**

#### **Introduction**

Refugees have been identified as a population that may be especially likely to experience emotion regulation difficulties, owing to experiences of interpersonal trauma, forced displacement and post-migratory stressors. Despite this, very little research has explored emotion regulation among refugees. Moreover, wider literature on emotion regulation has primarily focused on examining specific emotion regulation strategies in isolation, rather than patterns of emotion regulation across multiple strategies. Thus, no study has explored how different emotion regulation profiles among refugees might relate to psychopathology. To advance this novel line of enquiry, latent class analysis, which groups individuals according to levels of engagement across multiple emotion regulation strategies, was used to identify individual differences in habitual emotion regulation among refugees, and how they relate to trauma exposure and symptoms of PTSD.

#### **Method/Technique**

A total of 93 refugees and asylum-seekers recently resettled in Australia completed measures of habitual emotion regulation strategy use; specifically trait cognitive reappraisal and trait emotional suppression. All measures were translated and blinded back translated into Arabic, Persian Farsi and Tamil using gold-standard procedures. A latent class analysis was conducted to identify distinct classes of participants based on differing levels of habitual engagement in reappraisal and suppression. The association between class membership and key variables indexing refugee experiences (e.g., exposure to potentially traumatic events) and psychopathology (e.g., symptoms of PTSD and levels of emotion dysregulation) were also examined.

### **Results/Outcome**

Latent class analysis revealed three distinct profiles of habitual emotion regulation: a High Regulators class (55.7%; comprising individuals who frequently implemented both reappraisal and suppression strategies to regulate their affect), an Adaptive Regulators class (23.6%; characterised by a high use of trait reappraisal and low use of suppression) and a Maladaptive Regulators class (20.6%; describing individuals who rarely implemented reappraisal yet frequently engaged in suppression). Individuals in the Maladaptive Regulators class were more likely to be female, and experienced significantly more symptoms of PTSD and emotion dysregulation. Conversely, membership in the Adaptive Regulators class was associated with the least psychopathology. In addition, participants in the High Regulators class had been exposed to more types of potentially traumatic events.

### **Discussion/Conclusion**

This was the first study to identify qualitatively distinct patterns of emotion regulation among refugees. Additionally, each class evidenced unique relations with trauma exposure and psychopathology. The better psychological functioning of individuals in the Adaptive Regulators class, i.e., those who showed a reliance on cognitive reappraisal, and not emotional suppression, suggest that this pattern of habitual emotion regulation may be a desirable goal in psychological interventions with refugees. The emergence of a High Regulators class, i.e., those whose habitual response is to use multiple emotion regulation strategies, and its association with a greater variety of trauma experiences, might speak to the long-term impact of diverse past traumatisation on an individual current approach to emotion regulation.

Our findings demonstrate the importance of using person-centered methodologies to uncover patterns of emotion regulation and better understand the links between emotion regulation and psychopathology. Moreover, clinicians would benefit from considering their client's engagement in both putatively adaptive and putatively maladaptive emotion regulation strategies when developing targets for psychological interventions with traumatised refugees.

## **The Mental Health and Resettlement Trajectories Farsi and Dari-Speaking Refugees and Asylum Seekers in Australia**

**Zachary Steel, Reza Rostami, Ruth Wells & Jila Solaimani, University of New South Wales, Australia**

**David Berle, University of Technology Sydney, Australia**

**Haleh Abedy, University of New South Wales, Australia**

### **Introduction**

Refugees and asylum seekers increasingly live for prolonged periods with insecure residency, with threat of return to countries of perceived danger and restricted access to work, income support, health care and social services. In Australia the situation has been compounded following a government suspension of the processing of asylum claims between 2012 and 2015 that resulted in a legacy caseload of 30,500 asylum seekers being resident in Australia for extended periods of time.

### **Method/Technique**

This presentation reports on the Reassure Study, a prospective survey of Iranian and Afghani asylum seekers, refugees and immigrants who had arrived in Sydney, Australia between 2010-2017 as part of an ARC discover grant. Recruitment commenced March 2017 with assessments undertaken bimonthly for the first 12 months and six-monthly thereafter. Recruitment was applied a representative multi-stage time by location sampling frame across 12 randomly selected Iranian and Afghan grocery shops in Sydney. A final sample of 406 respondents (from 519 eligible customers, response rate = 78%) included 202 asylum seekers who had been resident in Australia for an average of 4.4 years.

### **Results/Outcome**

Amongst the asylum seekers, 46.5% were found to display symptoms consistent with a diagnosis of major depressive disorder and 29.2% PTSD. This compares to 20.2% for depression and 10.2% for PTSD in the permanently resettled group. Across the first 12 months asylum seekers were found to display a pattern of deteriorating PTSD and depression symptoms compared to an improving trajectory for those with permanent residency ( $p > .001$ ).

### **Discussion/Conclusion**

The results of this research demonstrate adversity experienced by asylum seekers in comparisons to permanent resettled compatriots.

## **Open Papers 15: Enhancing Extinction and Exposure Therapy**

**Chair: Marcella Woud, Ruhr-Universität Bochum, Germany**

### **Factors Influencing the Success of Exposure Therapy for Specific Phobia: A Systematic Review**

**Joscha Böhnlein, Elisabeth Leehr & Luisa Altegoer, University of Münster, Germany**

**Ulrike Lueken, Humboldt-University Berlin, Germany**

**Udo Dannlowski, University of Münster, Germany**

### **Introduction**

When treating Specific Phobia (SP), best evidence exists for Exposition Therapy (ET), i.e. the direct confrontation with the anxiety-inducing situation or stimulus. Nevertheless, there is a considerable percentage of patients who do not profit from ET in its current form: meta-analyses show a non-response in about a third of patients. A big number of potential factors (lying in the patient, in the therapy, or in other areas) could explain the differences of success. Some of these factors have been researched extensively and their influence is relatively well understood, some have been only marginally looked at.

This presented review gives an overview over the factors that might influence the success of ET for SP that have been studied so far.

### **Method/Technique**

We conducted a systematic review according to PRISMA guidelines (Liberati et al., 2009) by searching PubMed and PsycINFO for articles published until November of 2018. The search term contained words from the following areas: Phobic Disorders (but not social phobia) and some form of exposure therapy (or similar descriptions of the same form of therapy) and humans. Included studies had to fulfill the following PICOS criteria:

Participants: Humans affected with specific phobia or significant symptoms of specific phobia.

Intervention: Any form of therapy/intervention involving confrontation with the feared stimulus (in vivo, in sensu or in virtual reality).

Comparator: Included studies must either compare two variants of an exposure intervention or report between-subject differences as independent variable.

Outcome: A direct measure of treatment response (some form of “success parameter” like an improvement in BAT or questionnaires or a measure of difference in real-life behavior).

Study design: Controlled study in a laboratory or a naturalistic environment. Excluded are case studies.

Formalia: Articles published in peer-reviewed journals; excluded are reviews and short reports.

### **Results/Outcome**

In total, 1943 articles were screened and 121 articles were subsequently included. These researched factors were subdivided into the following groups: Enhancing drugs, factors within the patient, and factors regarding the presentation of the ET. The talk will give an overview over the different factors and their evidence for or against their influence on the success of ET.

### **Discussion/Conclusion**

From a scientific point of view, the results are at the same time both sobering and motivating: Because of a too small number of relevant studies, one cannot draw final conclusions regarding the role of all but a few factors. At the same time, the presented overview shows the clear need for research into the different factors and points to sensible starting points of such future research.

From a clinical point of view, the literature shown here underlines that ET is a very effective form of therapy; even if both the mechanisms and the influencing factors are not yet well understood, a vast majority of the studies presented here shows an improvement in anxiety (both subjectively, behaviorally and physiologically). It is thus preferable to other forms of therapy for patients with SP.

Moreover, the ET should have the goal to expose the patient with the feared stimulus as fast and as direct as possible (while still taking the commitment of the patient into account). Lastly, ET should be conducted as close as possible to the current state of the art, since this is the form of ET that is best examined and since the influence of all deviances from it are not yet understood well enough.

## **Mechanisms, Genes and Treatment: Experimental Fear Conditioning, Genetic and Epigenetic Variation of SLC6A4 and the Outcome of Highly Standardized Exposure-Based One-Session Fear Treatments**

**Andre Wannemüller, Robert Kumsta & Jürgen Margraf, Ruhr-Universität Bochum, Germany**

### **Introduction**

There is considerable interindividual variation in response to psychotherapeutical intervention. In order to realize the long-term goal of personalised treatment approaches, it is important to identify behavioural and biological moderators and mediators of treatment outcome. However, methodological problems of existing research, such as the application of unstandardized treatments in heterogeneous samples, has hampered clear conclusions so far. Here, we tested the predictive value of experimental fear learning and extinction efficacy as well as the role of genetic and epigenetic variation of the serotonin transporter gene (SLC6A4) for the outcome of highly standardized exposure-based large-group fear treatments.

### **Method/Technique**

So far data of four cohorts (N = 332 individuals) highly fearful of spiders, dental surgeries, heights or blood, injuries and injections exist (data of a fifth cohort consisting of presumably further 120 highly flight fearful individuals will be presented at the conference). A discriminative fear conditioning paradigm adapted for the use in large groups was conducted with the participants. Afterwards they were treated with exposure-based large-group one-session treatment formats. We assessed SLC6A4 DNA-methylation levels pre- and post-treatment and at 6 months follow-up. Moreover, participants were genotyped for the long (L) and short (S) allelic variant of the serotonin transporter linked polymorphic region (5HTTLPR). Participants' subjective fear was assessed during experimental fear conditioning and extinction. Concerning treatment outcome, we assessed treatment-relevant personality traits and fear symptoms.

### **Results/Outcome**

The odds of homozygous S-allele carriers to display a threat-biased contingency learning pattern characterized by exaggerated fear responses to the CS- were larger compared to L-allele carriers. Moreover they expressed higher neuroticism levels. There were no differences between 5-HTTLPR genotypes in treatment outcome effects at the immediate posttreatment assessment. However, we observed a highly significant genotype × treatment effect at follow-up. Fear levels of homozygous S-allele carriers differed from those heterozygous and homozygous for the L allele. Compared to posttreatment assessment, LL-allele carriers exhibited a further fear decrease at the follow-up assessment. In contrast, SS-allele carriers displayed a strong return of fear. DNA-methylation level of SLC6A4 was associated with the ‘Openness to experience’ personality dimension and in homozygous S-allele carriers, pre-treatment DNA-methylation level predicted treatment outcome. Moreover, we observed a 5-HTTLPR genotype-dependent association between treatment response and change in SLC6A4 DNA-methylation. Both short-term and long-term favorable treatment outcome was associated with increases in DNA-methylation from pre- to post-treatment in patients homozygous for the L-allele. However, the degree of methylation-change was small, and potentially confounded by changes in cellular composition.

### **Discussion/Conclusion**

Results suggest the homozygous S-allele carriers are biologically biased towards ignoring safety signals in threat-related situations. These alterations in inhibiting the response to cues formerly signalling threat evidenced for S-allele carriers can have negative impact on exposure success. Moreover, genetic variation of the serotonin transporter might be associated with differential stability of inhibitory learning processes, potentially reflecting heightened susceptibility for context-related processes that facilitate a return of fear in S allele carriers. Furthermore, results suggest SLC6A4 DNA-methylation as an epigenetic mediator of treatment response that might especially be relevant in carriers of the high plasticity genotype.

## **Examining the Impact of Spider Fear on the Reconsolidation of Fear Memories Using Reactivation plus Extinction**

**Julia Marinos, Olivia Simioni & Andrea Ashbaugh\*, University of Ottawa, Canada**

### **Introduction**

Cognitive behavioural therapy utilizes extinction principles for the treatment of anxiety disorders (Vervliet, Craske, & Hermans, 2013). Although extinction is effective, relapse rates range from 19% to 62% (Craske & Mystkowski, 2006), suggesting that the effect is not permanent. Reconsolidation is the process where long-term memories return to a malleable state and are updated when retrieved (reactivated). Given the updating mechanisms of reconsolidation, combining reactivation with exposure therapies may help reduce relapse rates. However, there is limited research on how the level of fear effects reconsolidation. We therefore examined if high spider fear impacted the reconsolidation of fear memories.

### **Method/Technique**

Participants were undergraduate students preselected for either high (HSF; n = 18) or low (LSF; n = 19) spider fear, based on a validated measure of spider fear. On day one, participants underwent fear conditioning where a CSa+ (spider image) and CSb+ (snake image) were

sometimes paired with the US (shock) and a CS- (clock image) was never paired with the US. On day two, participants had their memory for the CSa+ and CS- reactivated then underwent extinction to all three CSs. On day three, return of fear was assessed following reinstatement (four unpaired shocks). Fear potentiated startle (FPS) was measured to assess fear.

#### **Results/Outcome**

For the reactivated CSa+, HSF participants did not show a change in FPS (Extinction:  $M=4.87$ ,  $SD=2.38$ ; Post-reinstatement:  $M=5.38$ ,  $SD=2.21$ ),  $t(17)=-.77$ ,  $p=.45$ ,  $d=-.22$ . The same was observed for LSF participants (Extinction:  $M=4.02$ ,  $SD=1.83$ ; Post-reinstatement,  $M=4.70$ ,  $SD=1.79$ ),  $t(19)=-1.99$ ,  $p=.06$ ,  $d=-.3$ . For the unreactivated CSb+, HSF participants showed an increase in FPS (Extinction:  $M=4.23$ ,  $SD=2.07$ ; Post-reinstatement,  $M=5.54$ ,  $SD=2.42$ ),  $t(17)=-2.45$ ,  $p=.03$ ,  $d=-0.58$ , whereas LSF participants did not (Extinction:  $M=4.60$ ,  $SD=3.04$ ; Post-reinstatement:  $M=4.86$ ,  $SD=1.79$ ),  $t(18)=-.56$ ,  $p=.59$ ,  $d=-0.10$ .

#### **Discussion/Conclusion**

Consistent with predictions, return of fear was prevented in high spider fearful participants when extinction occurred following reactivation. Unexpectedly however, in the low spider fearful group, return of fear was prevented when extinction occurred with and without reactivation. A better understanding of how and when reconsolidation occurs is necessary to help explain these inconsistencies. Nonetheless, these results suggest that fear memories may be updated, even in high fearful participants. Implications for CBT will be discussed.

### **Influence of Valproic Acid in Combination with Reactivation of Fear Memory on the Outcome of Extinction-Based Therapy in Patients with Fear of Spiders**

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**Carlo Huber & Frieder Dechent, University Psychiatric Clinics Basel, Switzerland**

**Nathalie Schicktan, University of Basel, Switzerland**

**Johannes Gräff, École polytechnique fédérale de Lausanne, Switzerland**

**Undine Lang, University Psychiatric Clinics Basel, Switzerland**

**Dominique de Quervain, University of Basel, Switzerland**

#### **Introduction**

Exposure to feared objects or situations is the most common and effective treatment for specific phobia and anxiety disorders in general (Chambless & Ollendick, 2001). The proposed underlying mechanism of exposure therapy is extinction. During the extinction process new non-fear memory traces are generated to inhibit old fear memories (Milad & Quirk, 2002). Although extinction effectively reduces the fear response in short-term testing, extinction gains are often not permanent. Return of fear is correspondingly a common problem in treatment for anxiety disorders (Mystkowski et al. 2002, 2006; Craske & Mystkowski, 2006). And there is a need to develop new treatment approaches that focus on enhancing treatment stability. Accumulating evidence indicates that targeting reconsolidation processes after successful fear memory reactivation might be critical for stable fear reduction (e.g. reactivation/extinction protocol from Schiller et al., 2010). But, a recent animal study points to this might only apply to recent and not remote memories (as phobia-related fear memories) (Gräff et al., 2014). Consistent with this evidence, a translational approach with patients with spider phobia found reactivation prior to exposure treatment not to be more effective than exposure treatment alone (Shiban, 2014). The aforementioned animal study from Gräff et al., 2014 further showed that by using inhibitors of histone deacetylases (HDACis) during reconsolidation the neuroplasticity of remote fear memories could be reinstated and even remote memories persistently attenuated by a reactivation/extinction protocol (Gräff et al., 2014). In the present study, we aim to translate the evidence from Gräff et al, 2014 into a clinical application. Consequently, the current study examines, if the combination of HDACis and reactivation with exposure treatment leads to reduced return of fear in patients with spider phobia.

#### **Method/Technique**

Patients with spider phobia receive in a randomized, double-blind design placebo or the HDACi valproic acid (500mg) in combination with reactivation of remote fear memory before a 30-minutes exposure treatment. For exposure treatment, we use a virtual reality (VR) environment, which allows exposure in a standardized manner. Strength of phobic fear is evaluated by means of behavioral (behavioral avoidance test, BAT), subjective (questionnaires, visual analogue scales) and psychophysiological (skin conductance, heart rate, startle) measures before and 3 months after exposure therapy in VR.

#### **Results/Outcome**

Results will be presented at the conference.

#### **Discussion/Conclusion**

A positive influence of a one-time application of valproic acid in combination with reactivation of remote fear memory before exposure treatment on the stability of fear reduction would not only have potential for the treatment of specific phobias and other anxiety disorders. It might also be beneficial for other mental disorders treated with exposure as for example addictive disorders.

### **No Time for Exposure? Duration of Exposure Exercises in Inhibitory Learning-Oriented Therapy**

**Ingmar Heinig, Technische Universität Dresden, Germany**

**Andre Pittig, Julius-Maximilians-Universität Würzburg, Germany**

**Hans-Ulrich Wittchen, Technische Universität Dresden, Germany**

#### **Introduction**

Exposure is a core principle of change in CBT for anxiety disorders. Yet, it is applied in less than half of AD therapies in routine care (Pittig & Hoyer, 2017). One major barrier named by therapists are problems of time: Exposure is thought to be a lengthy and unforeseeable intervention that does not fit well in therapist's schedules. This may in part be a result of habituation-based procedures which require to keep exposure exercises going until fear has declined (Foa & Kozak, 1986, Lang et al., 2012). Inhibitory learning theories, by contrast, suggest that the main focus of exposure exercises is the violation of negative expectancies (Craske et al., 2014). This could potentially lead to shorter exercise duration. We therefore examined duration of inhibitory learning-based exposure exercises in different anxiety disorders.

#### **Method/Technique**

We analysed 5651 exposure exercises performed by 310 patients (aged 32.6 years, 53.6% female) with primary panic disorder or agoraphobia (63.6%), social anxiety disorder (33.6%) or specific phobias (2.9%). Patients underwent an exposure-based therapy consisting of five therapist-assisted exposure-sessions and a self-management phase including multiple homework exposures. Duration of exposure was documented on a standardized patient protocol after each exercise.



## Results/Outcome

Patients completed on average 20.4 (SD=10.5) exercises. Duration of exercises varied between 1 min and 5 days, with a median of 45 min. The shortest exercises covered symptom provocation, social interactions (e.g., phone calls, asking “stupid” questions), or contact with phobic stimuli. The longest exercises covered multi-day trips for leisure or work purposes. 68.1% of exercises lasted up to one hour, 17.8% one to two hours, 6.4% more than two hours. Among therapist-guided exercises, 98% were completed in two hours or less. Duration of exposure varied by primary diagnosis ( $\chi^2=146.5$ ,  $p<0.001$ ). Exposure exercises were longest in agoraphobia and specific phobias (median 60 min), followed by panic disorder (35 min) and social anxiety disorder (30 min). Duration of exposure was not associated with anxiety severity, measured by the HAMA ( $r=-0.01$ ,  $p>0.05$ ) or with anxiety ( $z=-1.09$ ,  $p>0.05$ ) or depressive comorbidity ( $z=1.93$ ,  $p>0.05$ ).

## Discussion/Conclusion

86% of all exercises – and virtually all therapist-guided exercises – lasted two hours or less. This suggests that the focus on violation of negative expectancies allows to carry out relatively short and thus plannable exposure exercises. Moreover, duration of exposure seems to be independent of anxiety severity and comorbidity. Inhibitory learning-based exposure may thus be easier integrated in clinician’s schedules compared to habituation-based exposure and may be a suitable way to foster the use of exposure in routine care.

## Open Papers 16: Treatment of Depression

**Chair: Ernst Koster, Ghent University, Belgium**

### Early Maladaptive Schemas as Predictors for Depression Severity and Treatment Response to a Cognitive Behavioural Therapy-Based Ambulant Psychiatric Rehabilitation Programme

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Andreas Affenzeller & Birgit Senft, BBRZ-Med, Austria

#### Introduction

According to Young (1990), Early Maladaptive Schemas (EMS) are a result of early developmental experiences of unmet basic emotional needs in relationships with significant others, and EMS play a causal role in the development of later psychopathology (2003). He grouped EMS into five broad domains of unmet emotional needs: disconnection, impaired autonomy, undesirability, restricted self-expression and impaired limits. EMS domain scales emerged as significant predictors of depression severity and episodes of major depression (Halvorsen et al. 2010, Renner et al. 2012).

The aim of the study was to investigate the influence of EMS on depression severity in a CBT-based ambulant psychiatric rehabilitation setting.

#### Method/Technique

The German version of the Young Schema Questionnaire Short Form 3 (YSQ-S3) was applied to assess EMS at time of admission, and depressive symptoms were assessed using the Beck Depression Inventory II (BDI-II, Hautzinger et al. 2006) at admission and at discharge after six weeks rehabilitation.

Statistical analyses were performed using SPSS 24.0, and predictive values of schemata for depression scores were calculated using AMOS.

#### Results/Outcome

A total of 694 patients were included in the current study (average age 43.12 years, 64% females). The majority of patients suffered from an affective (59.7%) or anxiety disorder (27.8%) as main diagnosis, the remaining were personality disorders (9.2%) or others (3.3%).

The prediction of BDI-II scores by means of the 18 schemas of the YSQ showed explained variance of 43%. Different schemas show varying influence on BDI-II results. Significant predictive values were found for the schemas dependence/incompetence (DI,  $p<.001$ ,  $r=.269$ ), negativity (NP:  $p<.001$ ,  $r=.192$ ), defectiveness/shame (DS,  $p=.004$ ,  $r=.147$ ), abandonment/instability (AB,  $p<.013$ ,  $r=.101$ ), mistrust/abuse (MA,  $p=.032$ ,  $r=.099$ ), self sacrifice (SS,  $p=.006$ ,  $r=.093$ ) and punitiveness (PU,  $p=.036$ ,  $r=.087$ ).

Different correlations were found between the varying schemas, with the strongest correlations between vulnerability to harm or illness (VU) and NP ( $r=.743$ ), DI and failure (FA,  $r=.692$ ), DS and social isolation/alienation (SI,  $r=.680$ ), MA and NP ( $r=.662$ ), and DS and subjugation (SB,  $r=.615$ ).

We further divided our sample in three clusters according to their change in BDI-II from admission to discharge: significant improvement (improvement by 8 points), no significant change (improvement or deterioration less than 8 points), significant deterioration (deterioration by 8 points), finding that the latter cluster showed significantly higher schemas scores in all schema domains.

#### Discussion/Conclusion

Our finding that specific EMS were related to depression symptom severity, explaining 43% of variance, are in accordance to Renner et al. (2012), however they found that other schemas (AB, ED=emotional deprivation, FA and EM=enmeshment) explained 48% of variance of depressive symptoms. Therefore, the current study supports previous findings that specific maladaptive schemas were related to depression severity, however the specific schemas seem to vary across different samples.

We further found that patients with higher schema scores are more likely to show significant deterioration in their depression scores after six weeks rehabilitation programme.

We conclude that the current study supports previous findings that specific maladaptive schemas are related to depression severity. Thus, patients with high schema scores might benefit from a schema-focused treatment programme.

### Predictors of Depression Symptom Improvement After Cognitive Behavioral Therapy for Insomnia

Aleksandra Usyatynsky & Colleen Carney, Ryerson University, Canada

#### Introduction

Insomnia has long been regarded as a symptoms of depression, yet the relationship between insomnia and depression is bidirectional (Sivertsen et al., 2012). Cognitive-Behavioral Therapy for Insomnia (CBT-I) is an efficacious treatment for individuals with comorbid insomnia and depression (MDD-I; Carney & Posner, 2015). In addition to improving insomnia, CBT-I improves depressive symptoms severity (Manber et al., 2011). The use of CBT-I as a stand-alone treatment for depression in those with MDD-I is supported (Cunningham & Shapiro, 2017). While improved insomnia symptoms may account for part of the change in depression following CBT-I, several other mechanisms may have a role. This study determined the magnitude of change in depressive symptoms after 4-session CBT-I in those with MDD-I, and examined subjective sleep efficiency (SE), variability in rise time (RT), negative sleep-related thoughts, and reported amount of time spent in bed overnight (TIB) as possible predictors of depression symptom improvement.

### **Method/Technique**

Participants (N=44, M=43.12 years) meeting Research Diagnostic Criteria for Insomnia (Edinger et al., 2004) and DSM-IV-TR criteria for Major Depressive Disorder (American Psychiatric Association, 2000) were treated with CBT-I in conjunction with antidepressants or a placebo, and completed electronic sleep diaries. Posttreatment mean SE, mean TIB, and RT variability (latest RT – earliest RT) were calculated over the course of two weeks following treatment. Negative thoughts about sleep were assessed using the Dysfunctional Beliefs and Attitudes about Sleep scale at posttreatment (DBAS; Morin, Vallieres, Ivers, Bouchard, & Bastien, 2003). Depression severity was assessed by the Hamilton Rating Scale for Depression (HAM-D) with the sleep item excluded (Hamilton, 1960). N=36 (M=43.14 years) participants were used for the regression analysis due to missing data at posttreatment.

### **Results/Outcome**

A mixed analysis of variance revealed a significant main effect of time,  $F(1, 42) = 29.23$ ,  $p < .001$ , with a large effect size of  $\eta^2 = .86$ . There was no main effect of group and no significant interaction. Depression significantly decreased following CBT-I for individuals in both the placebo and antidepressant groups.

For the whole sample, a multiple linear regression analysis revealed that posttreatment subjective SE ( $B = -46.11$ ,  $SE = 19.69$ ,  $p = .03$ ) and RT variability ( $B = 1.92$ ,  $SE = 0.79$ ,  $p = .02$ ) were significant predictors of posttreatment depressive symptoms, controlling for baseline depression scores. Mean TIB and negative thoughts about sleep were not significant predictors.

### **Discussion/Conclusion**

This study confirms previous findings that CBT-I significantly decreases depression. When examining mechanisms of change, this study found that in addition to improved sleep predicting depression symptom improvement, variability in rise time was also a significant predictor, such that more variability in one's schedule predicted higher depression symptoms. Possible explanations for this include regularity in one's schedule having a beneficial impact on depression, or that those with less variable rise times were able to wake up consistently earlier and re-train the body's circadian rhythms to phase advance, as proposed by Cunningham and Shapiro (2018). While improved insomnia accounts for part of the improvements in depression following CBT-I, other mechanisms of change must be researched to better understand which components of CBT-I provide the most critical antidepressant effects.

## **Inpatient Cognitive Behavioral Analysis System of Psychotherapy for Chronically Depressed Patients: A Naturalistic Feasibility Trial on a General Acute Psychiatric Unit**

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Philipp Sterzer, Charité - Universitätsmedizin Berlin, Germany

### **Introduction**

The Cognitive Behavioral Analysis System of Psychotherapy (CBASP) is a promising treatment for patients with persistent depressive disorder (PDD) that was initially developed as an outpatient psychotherapy. We adapted CBASP as inpatient treatment on a general acute psychiatric ward and evaluated its feasibility and efficacy.

### **Method/Technique**

Sixty PDD patients were included in this naturalistic feasibility trial. They received a 12+4 weeks (inpatient stay + post treatment phase) treatment with individual and group therapy. The Hamilton Depression Rating Scale (HAMD-24) served as primary outcome measure and the Beck Depression Inventory (BDI-II) as the secondary outcome measure. A prospective naturalistic follow-up assessment was conducted six months after treatment. Feasibility was assessed through drop-outs and satisfaction with the program.

### **Results/Outcome**

Fifty out of 60 patients completed the program (dropout rate: 16.7%). ITT analyses for the acute treatment revealed that depressive symptoms significantly decreased for primary outcome (HAMD24 response rate: 74.3%), and for secondary outcome (BDI-II response rate: 32%). At follow-up, the majority of patients sustained treatment results compared to pre-treatment. Relapse rates were low ( $n = 4$ ) and only two patients were rehospitalized. Patients evaluated the program as satisfying.

### **Discussion/Conclusion**

CBASP as inpatient treatment for PDD is feasible on a general acute psychiatric ward. The sample showed a significant improvement in depressive symptoms with large effect sizes for the acute treatment phase that were maintained through the follow-up assessment.

## **Mindfulness-Based Cognitive Therapy (MBCT) for Current Depression Study. Outcomes and Mediators of Change**

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Marzena Rusanowska, Polish Academy of Sciences, Poland

John Nezlek, College of William & Mary, USA

### **Introduction**

Mindfulness-based cognitive therapy (MBCT) has been found to be effective in the reduction of relapse rates in individuals with more than three episodes of depression (for meta-analysis see Piet & Hougaard, 2011). It is less clear if MBCT is effective for treating individuals who are currently depressed and to date, little is known about the underlying mechanisms of symptoms change. While theoretical underpinnings of MBCT postulate that it modifies processing of emotional information and thus reduce cognitive vulnerability to depression (Lau et al., 2004), little is known if MBCT lead to normalization of attentional biases in depressed individuals. Therefore, the main aim of the current study was to evaluate if MBCT modifies interpretative and attentional biases underlying depression in MDD and to assess mindfulness and self-compassion as mechanism of depression change in MBCT.

### **Method/Technique**

Fifty six individuals with diagnosis of ongoing MDD were randomly assigned to MBCT ( $n=26$ ) and Waiting List ( $n=30$ ) conditions. Prior and post 8 weeks intervention they filled questionnaires and underwent two cognitive task, while their eye movements was recorded. They unscrambled a list of scrambled sentences as a measure of their depressive interpretation bias (Scramble Sentences Test (SST) and viewed slides presenting sad, angry, happy and neutral facial expressions.

### **Results/Outcome**

We found decrease in depressive symptoms after MBCT in comparison with WL, which was mediated by increase in mindfulness and self-compassion. As expected, after MBCT patients showed a reduced maintenance of attention to sad faces and prolong maintenance of attention

to happy faces when comparing to WL group. In addition, at post-test, the MBCT group fixated less on negative keywords than at the pre-test, and at the post-test they made more fixations on positive vs. negative keywords. No such differences were observed in waiting group.

#### **Discussion/Conclusion**

The results of current study support modest existing literature evidencing that MBCT can be effective in treating ongoing major depression (Strauss et al., 2014) and extend it by indication of possible mechanisms underlying depression reduction – modification of negative cognitive biases, in addition to increase in mindfulness and self-compassion.

Conclusion: MBCT seems to be promising treatment for major depression and its mechanisms of action involved cognitive bias modification and increase in mindfulness and self-compassion.

### **Using the Personalized Advantage Index for Individual Treatment Allocation to Cognitive Behavioral Therapy (CBT) or a CBT with Integrated Exposure and Emotion-Focused Elements (CBT-EE”)**

**Nadine Friedl, Thomas Berger, Tobias Krieger, Franz Caspar & Martin grosse Holforth, University of Bern, Switzerland**

#### **Introduction**

Even though different psychotherapeutic interventions for depression have been shown to be effective, patients suffering from depression vary substantially in their individual treatment response and course over treatment. The goal of this study was to answer the following research questions: (1) What are the most important predictors determining optimal treatment allocation to Exposure based cognitive behavioral therapy (CBT-EE) or cognitive behavioral therapy (CBT)? and (2) Does model-determined treatment allocation to CBT-EE or CBT result in better treatment outcomes for patients than random allocation?

#### **Method/Technique**

Bayesian Model Averaging (BMA) was applied to the data of a randomized controlled trial (RCT) comparing the efficacy of CBT-EE, and CBT in depressive outpatients. Predictions were made for every patient for both treatment conditions and an optimal versus a suboptimal treatment was identified in each case and the Personalized Advantage Index was calculated.

#### **Results/Outcome**

The strongest predictors of depressive symptoms (Beck Depression Inventory, BDI-II) at post-treatment in CBT-EE included being separated or divorced, having accomplished an apprenticeship, age, comorbid anxiety, comorbid axis-II disorder, pre-treatment depression severity, general psychopathology, self-focused rumination and hopefulness. The most important predictors for treatment outcome in CBT were gender, pre-treatment BDI-II score, the number of previous depressive episodes, recurrent depression and avoidance. It was found that the group of patients that has been classified to having received their optimal treatment, had a change score of 17. In comparison, the group that has been classified as having received their suboptimal treatment had a change score of 13.

#### **Discussion/Conclusion**

This study shows that with using BMA, it is possible to make outcome predictions based on a set of baseline variables. The fact that different variables predict treatment outcome in the two conditions highlights the importance of treatment selection and personalized medicine as it can identify the treatment that is most likely to succeed.

## **Open Papers 17: New Approaches to Assessing and Predicting Outcomes**

**Chair: Simon Blackwell, Ruhr-Universität Bochum, Germany**

### **A Multi-Methodological Approach to Explore the Nature of Change over the Course of Psychotherapy: An Idiographic Case Study**

**Allison Diamond Altman, University of California, USA**

**Lauren Shaprio, The Wright Institute, USA**

**Aaron Fisher, University of California, USA**

#### **Introduction**

The present study focuses on a multi-methodological approach to understand the nature of change in psychological treatment, both from a quantitative and a qualitative lens. It focuses on a single participant from a treatment outcome study that utilized a personalized, idiographic approach involving intensive, repeated assessment measures taken over the course of therapy. Specifically, this paper aims to identify changes in specific symptomatology from quantitative Ecological Momentary Assessment (EMA) data over the course of treatment in order to identify if a given therapeutic module (e.g. mindfulness) was related to downstream effects in predicted symptom domains (e.g. reduced restlessness). In addition, the present study incorporated qualitative data from 14 transcribed therapy sessions to investigate if there were perturbations in specific word usage following specific therapeutic modules, using the Pennebaker's Linguistic Inquiry and Word Count program (LIWC; Pennebaker et al., 2007).

#### **Method/Technique**

Delivery of the Unified Protocol as a treatment in individualized therapy sessions was personalized based on data gathered prior to therapy. EMA data was collected prior to the start and throughout the course of therapy. Quantitative hypotheses were developed based on specific modules in order to investigate symptom changes throughout therapy, with expected changes to appear during and after a given module was delivered. To assess changes in the participant's affect ratings, ordinary least squares (OLS) linear regression was employed to test response trajectories of each item. For the qualitative analyses, narrative data from each therapy sessions were transcribed by trained research assistants, and then uploaded by session into LIWC. Module-specific hypotheses were generated in order to investigate changes in the participant's language use over the course of therapy. To test for each specific hypothesis, composite variables were created for each item in question. Following this, either separate OLS linear regressions were employed to account for changes in hypothesized words over the course of therapy (coded as Time) or ratio tests were employed to test for increased use of certain word categories before and after a give module.

#### **Results/Outcome**

Results from OLS regressions on quantitative survey data showed significant changes in both positive and negative affect variable following specific therapeutic modules. Results for qualitative data analyses indicated clear trends in words use throughout the course of therapy but no significant findings.

## **Discussion/Conclusion**

The present case study presents an example of using both quantitative, intensive repeated measures data and LIWC software to investigate the nature of change throughout the course of a modularized therapy, as well as includes the hypotheses and analyses one might propose to investigate future cases in the same integrative manner. This study serves as an example of a novel methodological approach to investigating the mechanisms that underlie improvements in psychotherapeutic treatments, both from a qualitative and a quantitative standpoint. Future work should continue to combine these two approaches in order to better understand the nature of change in psychotherapeutic treatment.

## **Exploring the Relapse Signature: A Network Analysis of Residual Depression and Anxiety Symptoms After Cognitive Behavioural Therapy**

**Ben Lorimer, Jaime Delgadillo & Stephen Kellett, University of Sheffield, United Kingdom**

**Gary Brown, Royal Holloway University of London, United Kingdom**

### **Introduction**

Many patients with depression and anxiety relapse within one year of cognitive behavioural therapy (CBT) that has been clinically effective in treating the acute phase episode. The presence of residual symptoms at the final treatment session has been demonstrated to predict relapse. This study therefore applied network analyses to further explore the specificity of residual anxiety and depression symptoms in predicting relapse.

### **Method/Technique**

A cohort study identified relapse cases following low and high intensity CBT in a stepped care psychological service. The sample included N=867 recovered treatment completers that attended a follow-up review within six months of completing treatment. At follow-up, N=93 patients had relapsed and N=774 remained in-remission. Networks of final treatment session depression (PHQ-9) and anxiety (GAD-7) symptoms were estimated for both sub-samples.

### **Results/Outcome**

Qualitatively similar symptom network models for relapse and remission cases were found. However, concentration deficits (i.e. a depression symptom) were highly central in the relapse network, while only possessing average centrality in the remission network. In contrast, trouble relaxing (i.e. an anxiety symptom) was highly central in the remission network, while only possessing average centrality in the relapse network.

### **Discussion/Conclusion**

The identification of central residual symptoms holds promise in improving the specificity of prognostic models and targeting relapse prevention interventions.

## **Predicting Optimal Intervention for Clinical Depression Applying the Personalized Advantage Index Approach: Differential Predictions for PPI and Cognitive Behavioural Therapy**

**Carmelo Vazquez\*, Complutense University of Madrid (UCM), Spain**

**Lorenzo Lorenzo-Luaces\*, Indiana University, USA**

**Irene Lopez-Gomez, Rey Juan Carlos University, Spain**

**Lorenzo Lorenzo-Luaces, Indiana University, USA**

**Covadonga Chaves, Francisco de Vitoria University, Spain**

**Gonzalo Hervás & Carmelo Vazquez, Complutense University, Spain**

**Robert DeRubeis, University of Pennsylvania, USA**

### **Introduction**

Identifying individual differences in the clinical response to specific interventions and, consequently, tailoring interventions to individuals, could help to increase overall efficacy of the available interventions for psychological problems.

In a previous controlled trial, a positive psychology interventions (PPI) protocol was compared to a standard CBT protocol for clinical depression. Results showed that both intervention programs were statistically and clinically effective as well as highly acceptable for clinically depressed participants (Chaves, Lopez-Gomez, Hervás, & Vazquez, 2017; Lopez-Gomez, Chaves, Hervás, & Vazquez, 2017). There were no major significant differences in average efficacy between them. Yet, this lack of differences is on an average level and there is little knowledge on which intervention produces the best outcome for each person.

Therefore, the aim of this study was to identify moderators of the differential efficacy of these two psychological interventions. For this purpose, the treatment selection method developed by DeRubeis et al. (2014) was applied as a post-hoc analysis to the data gathered in the trial. Following a personalized treatment approach, this method combines multiple predictors and moderators into a statistical model that yields the Personalized Advantage Index (PAI). This index identifies the intervention predicted to produce the best outcome for a given patient.

### **Method/Technique**

Adult women (N=128), with a DSM-IV-TR diagnosis of major depression or dysthymia (SCID-I), were blindly allocated to the Integrative Positive Psychological Intervention for Depression (IPPI-D; n = 66) or CBT (n = 66) condition. Both treatments had a 10-session group format and used a manualized protocol (Chaves et al., 2019).

Outcomes analyzed included demographics, diagnosis status, clinical measures and positive functioning measures. These measures were assessed immediately before starting and after finishing the interventions.

### **Results/Outcome**

Six out of the 21 variables studied were moderators of the differential efficacy of the treatments. In order of importance, the variables were: a) the presence of an Axis III medical condition, b) a history of prior treatment with antidepressant medications, c) the presence of an Axis I co-morbid diagnosis, d) baseline automatic thoughts scores, e) baseline personal growth scores, and f) baseline difference between cognitive and non-cognitive symptoms of depression. These moderators were combined in the PAI model. Patients assigned to their PAI-predicted optimal treatment showed superior outcomes in the BDI-II (M = 15.59, SD = 10.03) than patients assigned to the treatment that was predicted to be suboptimal (M = 13.29, SD = 9.04). Also, the PAI model predicted that, in this trial, the PPI was the optimal treatment for most of the sample (73%).

### **Discussion/Conclusion**

Being able to select the optimal treatment for each person from the available therapeutic options is a crucial issue and combined moderators' indexes as the PAI may be extremely useful to select the optimal treatment for a given patient (Cohen & DeRubeis, 2018). The implications of these results for the treatment of depression are discussed.

### **The Effects of Intense Pre-Post Assessment (IPA) on Statistical Power in Randomized Controlled Trials**

**Raphael Schuster, Manuela Larissa Schreyer & Tim Kaiser, University of Salzburg, Austria**

**Thomas Berger, University of Bern, Switzerland**

**Jan Philipp Klein, University of Lübeck, Germany**

**Anton Laireiter, University of Salzburg, Austria**

#### **Introduction**

Conducting clinical research is an effortful endeavor, and the field still suffers from underpowered studies. At the same time, automatized repeated assessments are an increasing practice (e.g. ecological momentary assessment). This study investigated the mathematical basis of Intense Pre-Post-Assessment to increase power in randomized controlled trials.

#### **Method/Technique**

A simulation study, based on three scenarios (average questionnaire-like data; average ecological momentary assessment-like data; and data modeled after an online depression trial,  $N=1013$ ), estimated the expected power gains of two- or fivefold pre-post-measurements. For each condition, 62.000 data sets were generated, using Clayton and Frank copula. Subsequently, AN(C)OVAs were applied to randomly drawn subsamples of the generated data sets. Linear mixed models and non-parametric tests were applied in complementing analyses.

#### **Results/Outcome**

Power increases ranged from 6% to 92%, with higher gains in more underpowered trials. ANCOVA with baseline as covariate profited from a more precise estimation of the baseline covariate, resulting in power gains beyond standard methods. If applied repeatedly, ecological momentary assessment-like data sources resulted in high statistical power, and, thus, can be used to substitute questionnaire assessments. Comparable results emerged in the complementing analyses for non-parametric and simple linear mixed models.

#### **Discussion/Conclusion**

Intense Pre-Post-Assessment integrates the approaches of randomized controlled trials and time series-based analyses into one hierarchical study design. An improved signal-to-noise ratio increases power beyond standard methods, and, thereby, facilitates more reliable and efficient studies. The reported findings are supported by ongoing empiric research. Depending on the specific study context Intense Pre-Post-Assessment may help to improve precision and sensitivity whenever psychological constructs are assessed (eg. in neuroscience, or drug and psychotherapy research). Therefore, the approach should be further tested. Results are based on numerous simulations, implying high statistical validity. However, more empirical evidence is needed. For example, effects may diverge for psychiatric conditions with more complex symptom dynamics (e.g. posttraumatic stress disorder).

### **Estimation of Depression Tests Performance with Bayes' Theorem**

**Marco Tommasi, Grazia Ferrara & Aristide Saggino, University of Chieti and Pescara, Italy**

#### **Introduction**

The validity of clinical diagnoses is a fundamental topic in clinical psychology. The most problematic issue in clinical psychology is to avoid wrong diagnoses which can have negative consequences on individual life and on the utility and cost of clinical treatments. Therefore it is necessary to adopt methods which could improve the accuracy of diagnostic decisional processes. In the case of diagnoses based on psychological testing, the use of cutoffs to decide the presence of psychological syndromes is derived from the frequentist approach to probability. Frequentism takes into account only the probability that the event occurrence is due only to random factors. Therefore, the probability on an event can be determined only after its occurrence. However, the frequentist approach underestimates the possible risks of incorrect diagnoses based on cutoffs only. The Bayesian approach is a valid alternative to make diagnoses on the basis of the scores from psychological tests. The Bayes' theorem estimate the posterior probability of the presence of a pathology on the basis of the prior probability of this pathology and of the likelihood distribution of normal and pathological cases in population. This approach needs not only information about the pathology frequency in the population, but also about the percentage of true and false positives in test scores. With this information, it is possible to estimate the diagnostic accuracy of the specific clinical test used for assessing depression.

#### **Method/Technique**

We estimated the diagnostic accuracy of the most used psychological tests of depression (Zung's Self-Rating Depression Scale, Hamilton Rating Scale for Depression, Center for Epidemiological Studies for Depression and the Beck Depression Inventory), together with a new scale (Teate Depression Inventory) developed with the IRT procedure, by collecting and analyzing the published works in which data about sensitivity and specificity of these scales are reported.

#### **Results/Outcome**

Except the TDI, none of these scales can reach a satisfactory level of diagnostic accuracy. The principal reasons for this low diagnostic accuracy were principally identified in a scarce definition of psychological diseases symptoms used to create valid clinical samples and in process of items selection based on statistical techniques different from those of the IRT.subjects.

## **Discussion/Conclusion**

If a good criterion to select items and subjects with clearly defined pathological symptoms is fixed, then it is possible to reduce the number of false positives in test scoring.

## **Open Papers 18: Mechanisms of Psychotic Symptoms and Experiences**

**Chair: Tania Lincoln, University of Hamburg, Germany**

### **The Contribution of Childhood Trauma to Emotional Reaction and Emotion Regulation in Trait Schizotypy. A Randomized Controlled Trial**

**Krisztina Kocsis-Bogar & Thomas Probst, Donau-Universität Krems, Austria**

**Dorothea König, Universität Wien, Austria**

**Christoph Pieh, Donau-Universität Krems, Austria**

**Kristina Hennig-Fast & Martin Voracek, Universität Wien, Austria**

#### **Introduction**

Maladaptive emotion regulation strategies play a role in translating childhood trauma into psychotic experiences (Lincoln, Marin, & Jaya, 2017) and are present in the schizophrenia-schizotypy spectrum which is also characterized by an increased negative emotionality, increased suppression, reduced reappraisal, as well as strong reactions to negatively valenced emotional stimuli (Phillips & Seidman, 2008). There is however evidence of patients with schizophrenia learning a more adaptive emotion regulation strategy under laboratory condition (Grezellschak, Lincoln, Westermann, 2015). The role of trauma history in the intensity of emotional reactions and difficulty of emotion regulation in individuals with trait schizotypy, especially in experimental situations, is relatively understudied. Our aim was to examine, how participants with high compared to low trait schizotypy react to frustration and a subsequent instruction to use an emotion regulation strategy in the laboratory and if history of childhood trauma plays a role.

#### **Method/Technique**

Altogether 131 participants (81% female, age:  $M = 23.83$  ( $SD = 4.58$ ), education:  $M = 13.54$  ( $SD = 5.59$ ) years were allocated into the low (Schizotypal Personality Questionnaire (SPQ) score  $< 14$ ) and high ( $SPQ \geq 14$ ) group. Wortschatztest, Emotion Regulation Questionnaire and Childhood Trauma Questionnaire were filled in. State-Trait Anger Expression Inventory and Positive and Negative Affect Schedule were used to monitor anger, negative and positive emotions at baseline and during the experimental situation. Negative emotions were induced by an instruction to recall a frustrating social situation from the last two weeks. Following that, participants were instructed either to suppress or to reappraise their feelings.

#### **Results/Outcome**

Participants with high schizotypy had significantly higher values along all trait anger scales, except for anger control where they had significantly lower values than participants with low schizotypy ( $\eta_p^2 = 0.35$ ). Although the high and the low schizotypy was not significantly different regarding childhood physical and sexual abuse and the sum of CTQ (all  $ps > .065$ ) childhood trauma contributed significantly to the group differences ( $\eta_p^2 = 0.08$ ). No effect of trauma history was found in the low schizotypy group on the emotional reaction to a frustrating experimental stimulus, but history of childhood trauma contributed to a greater anger reaction in individuals with high schizotypy on a tendency level ( $\eta_p^2 = .09$ ). Participants with higher physical abuse showed a significantly greater reduction of positive emotions ( $\eta_p^2 = .12$ ), when recalling frustrating memories. No significant differences were found regarding emotion regulation.

#### **Discussion/Conclusion**

Non-clinical individuals with high schizotypy tend to show a significantly stronger trait and state anger reaction, as well as a greater decrease of positive emotions when confronted with frustrating experimental stimuli, compared to those with low schizotypy. Childhood trauma contributed significantly to this difference. However, when instructed to use an emotion regulation strategy both groups with high and low schizotypy could successfully reduce their negative and increase their positive emotions, regardless of trauma history. Despite their stronger emotional reactions, individuals with high schizotypy and history of childhood trauma are able to learn successfully regulate their emotions. Further investigations are needed to clear possible compensatory mechanisms.

### **The Effect of Racial Discrimination on Subclinical Symptoms of Psychosis**

**Olivia Altamirano, Daisy Lopez & Amy Weisman de Mamani, University of Miami, USA**

#### **Introduction**

Schizophrenia is one of the most disabling mental health disorders with the poorest outcomes (Jobe & Harrow, 2005). Cross-cultural research indicates an association between perceived discrimination and depression, anxiety, general psychological distress (Alvarez & Juang, 2010) and psychotic-spectrum disorders among minority individuals (Morgan & Hutchinson, 2010). Additionally, studies have found that certain types of coping moderate the relationship between discrimination and depression (Wei, Heppner, Ku, & Liao, 2010). However, there is limited research empirically testing the mechanisms through which these relationships exist and even fewer assessing non-clinical samples. Assessing subclinical symptoms, before the onset of schizophrenia, may be useful in prevention efforts.

#### **Method/Technique**

The present study consisted of 261 ethnic minority undergraduate students from the University of Miami. A structural equation model using a latent variable of subclinical psychosis within a moderated mediation model was implemented to assess relationships between racial discrimination, maladaptive coping, depression, anxiety, and stress, and subclinical psychosis.

#### **Discussion/Conclusion**

Results confirmed that perceived racial discrimination was associated with greater subclinical psychosis through increasing depression, anxiety, and stress at greater levels of maladaptive coping. The present study assessed subclinical populations that may be at risk to develop psychosis.

## **The Relationship Between Voice Hearing and Posttraumatic Stress Disorder Symptoms in Daily Life: An Ecological Momentary Assessment Study**

**Rachel Brand, Swinburne University of Technology, Australia**

**Sarah Bendall, Orygen: The National Centre of Excellence in Youth Mental Health and The University of Melbourne, Australia**

**Susan Rossell & Neil Thomas, Centre for Mental Health, Swinburne University of Technology, Australia**

### **Introduction**

A large proportion of people who hear voices (often referred to as auditory hallucinations) have experienced traumatic events in their lives, and there is growing evidence that traumatic experiences may play a causal role in voice hearing. Understanding the psychological mechanisms involved in this relationship is crucial to informing the development of psychological therapies that address the role of trauma in distressing voice hearing. Cross-sectional data show that posttraumatic intrusions correlate with the presence of voice hearing in trauma-affected populations and may mediate the trauma-voice hearing link. Avoidance and numbing and negative posttraumatic beliefs also appear to be important mediators in the relationship between voice hearing and traumatic events. However, the majority of evidence in this area has been correlational, and would be enhanced by establishing the temporal relationship between PTSD symptomatology and voice hearing. Ecological momentary assessment involves the collection of data from an individual over repeated measurements, in the context of daily life, and in real time. Collecting data in this way can capture the dynamic relationship between variables of interest.

### **Method/Technique**

**Aims:** The current study aimed to extend our understanding of the relationship between voice hearing and PTSD symptoms in daily life using ecological momentary assessment.

**Methods:** Thirty-two people with current voice hearing and a history of traumatic or adverse events were recruited. Data was gathered regarding descriptive characteristics (diagnosis, symptom severity, level of functioning) and potential moderating variables (PTSD diagnostic status, nature of the voice trauma-link, and the intrusiveness and disorganization of the trauma-memory). Participants then completed 6 days of monitoring using ecological momentary assessment delivered on a smartphone app. Information regarding voice hearing severity and distress, and PTSD symptoms was collected at 10 time points each day.

### **Results/Outcome**

Results will be presented, including multi-level modeling to ascertain whether different PTSD symptoms predict voice hearing severity and distress. Additionally, the moderating role of PTSD diagnostic status, the disorganization and intrusiveness of the trauma memory, and the nature of the voice-trauma link will be examined.

### **Discussion/Conclusion**

To our knowledge this is the first study to examine the temporal association between traumatic intrusions and hallucinations in daily life. The theoretical and clinical implications for cognitive behavioral models and treatments for trauma-related voice hearing will be considered.

## **Investigating the Impact of Presenter and Content Effects on Positive Emotion and Self-Efficacy for Personal Recovery in Psychosis**

**Bronte McLeod, Denny Meyer, Catherine Meyer & Neil Thomas, Swinburne University of Technology, Australia**

### **Introduction**

Historically, the biomedical perspective of mental illness has predominated mental health policy and practice, particularly in developed countries. However, recent decades have seen services increasingly prioritise the recovery paradigm, focused on supporting people to live personally satisfying, hopeful and contributing lives even with limitations caused by illness. In line with this recovery orientation, an active and empowered consumer collective continues to advocate for the inclusion of lived experience perspectives in traditional service delivery. This aligns with emerging evidence that contact with peers with shared mental health-related experiences who are further along the recovery pathway may facilitate personal recovery. To date, specific peer elements responsible for facilitating recovery processes and the differential impact of peer and professionally delivered recovery-oriented interventions have not been quantitatively examined. Using digital media, we developed therapeutic resources to investigate the differential impact of (i) experts by experience and experts by profession (presenter effect) and (ii) personal recovery and biomedical perspectives (content effect) on state-based changes in positive emotion and self-efficacy for personal recovery among people with experience of psychosis. We hypothesised that recovery content would elicit higher positive emotion and self-efficacy for personal recovery ratings, compared to biomedical video material. We further hypothesised recovery material delivered by experts by experience would elicit higher positive emotion and self-efficacy for personal recovery ratings, compared to recovery content delivered by experts by profession.

### **Method/Technique**

Via an experimental design, 53 adults aged 24-65 years ( $M=44.85$ ,  $SD=10.17$ ) with lived experience of psychosis viewed three videos in random order, stratified by extent of prior contact with recovered peers. Two mixed ANOVAs with positive emotion (more hopeful, less ashamed, more motivated, less alone, more validated/understood, more positive about the future) and self-efficacy for personal recovery as dependent variables explored differences in the within subjects factor, VIDEO CONDITION, with three post-video levels 'Experts by Profession: Recovery', 'Experts by Experience: Recovery; and 'Experts by Profession: Biomedical', and the between-subjects factor, VIDEO ORDER.

### **Results/Outcome**

Findings demonstrate significant differences in both positive emotion and self-efficacy for personal recovery according to video condition. Pairwise comparisons with a Bonferroni correction showed that the 'Experts by Profession: Recovery' and the 'Experts by Experience: Recovery' videos elicited statistically greater positive emotion change ratings compared to the 'Experts by Profession: Biomedical' video ( $p=.001$  and  $p<.001$ , respectively). Further, the 'Experts by Experience: Recovery' condition elicited statistically significantly higher self-efficacy ratings compared to the 'Experts by Profession: Biomedical' condition ( $p=.007$ ).

### **Discussion/Conclusion**

Findings from this study provide important information about how mental health discourses and peer perspectives can influence psychological processes relevant to recovery. Implications for the development of a peer workforce and the inclusion of lived experience perspectives in traditional service delivery are discussed.

## **Negative Symptoms as a Mediator between Neurocognition, Social Cognition and Social Functioning in Individuals at Clinical High Risk for Psychosis**

**Stefanie Schmidt, University Hospital and University of Bern, Switzerland**

**Ana Cerne, University Hospital of Bern, Switzerland**

**Frauke Schultze-Lutter, Heinrich-Heine University of Düsseldorf, Germany**

**Jochen Kindler & Daniela Hubl, University Hospital of Bern, Switzerland**

**Benno G. Schimmelmann, University Hospital of Bern, Switzerland, and University Hospital Hamburg-Eppendorf, Germany**

**Michael Kaess, University Hospital of Bern, Switzerland, and University of Heidelberg, Germany**

**Chantal Michel, University Hospital of Bern, Switzerland**

### **Introduction**

Poor social functioning is highly prevalent in subjects at clinical high risk (CHR) for psychosis and predictive of conversion to manifest psychosis. Neuro-cognitive and social-cognitive domains have found to be important predictors of social functioning in patients with psychosis. Some evidence also suggests that the relationship between neurocognition and functioning is mediated by social-cognitive domains and negative symptoms. However, these relationships are still poorly understood in CHR-subjects.

### **Method/Technique**

Therefore, the aim of this study was to use structural equation modeling to estimate the relationships between neurocognitive domains, empathy as a specific social-cognitive domain, social functioning and positive as well as negative CHR-symptoms. The sample comprised 96 individuals (9-35 years), who sought help at the “Early Recognition and Intervention Center for mental crisis” (FETZ) Bern. CHR-symptoms were assessed using the Structured Interview for Psychosis-Risk Syndromes; social functioning by the social and occupational functioning assessment scale (SOFAS) and neurocognition by a comprehensive assessment-battery. The German version of the Interpersonal Reactivity Index (IRI) was used to assess empathy.

### **Results/Outcome**

Both neurocognitive domains and empathy were significantly associated with social functioning. Moreover, these relationships were significantly mediated by negative symptoms. No evidence for a mediating role through empathy or positive CHR-symptoms could be detected. The model showed a good fit to the data (RMSEA=0.04, CFI=0.96, TLI=0.95).

### **Discussion/Conclusion**

This suggests that deficits in empathy as well as negative symptoms should be monitored carefully and treated as early as possible to prevent a negative cascading effect and to optimize generalization effects of neurocognitive remediation on social functioning.

## **Open Papers 19: Advances in Mechanisms and Treatment of Post-Traumatic Stress Disorder**

**Chair: Marcella Woud, Ruhr-Universität Bochum, Germany**

### **A Test of Theory-Derived Mediators of Clinical Improvement in Cognitive Therapy for Posttraumatic Stress Disorder**

**Milan Wiedemann, Magdalena Janecka & Jennifer Wild, University of Oxford, United Kingdom**

**Emma Warnock-Parkes & Richard Stott, King's College London, United Kingdom**

**David M Clark & Anke Ehlers, University of Oxford, United Kingdom**

#### **Introduction**

A key question in current psychotherapy research is how existing psychological interventions work. This study aims to test whether change processes specified in Ehlers and Clark's (2000) cognitive model of posttraumatic stress disorder (PTSD) are supported by treatment data from patients who received cognitive Therapy for PTSD (CT-PTSD).

#### **Method/Technique**

A sample of 342 consecutive patients who received CT-PTSD in routine clinical care was analysed. Bivariate latent change score models were used to test for mediation of clinical improvement.

#### **Results/Outcome**

This study investigates how changes in five theory-derived measures are related to subsequent changes in PTSD symptoms: (1) trauma-related negative appraisals, (2) disorganised recall of the traumatic experience, (3) flashback quality of unintentional memories, (4) unhelpful responses to intrusions, and (5) safety seeking behaviours.

#### **Discussion/Conclusion**

The results will be discussed in light of recent methodological debates, the current clinical literature, and the theoretical model that underpins the treatment. Further, potential mechanisms of the effectiveness of CT-PTSD will be discussed.

### **The Role of Lifetime Adversity on the Relationship Between Peritraumatic Neural Processing and Post Traumatic Stress Disorder-like Symptoms**

**Julina A. Rattel, Stephan F. Miedl, Laila K. Franke, Jens Blechert, Martin Kronbichler, University of Salzburg, Austria**

**Victor I. Spoormaker, Max Planck Institute of Psychiatry Munich, Germany**

**Frank H. Wilhelm, University of Salzburg, Austria**

#### **Introduction**

Pathological peritraumatic encoding is proposed as a proximal risk factor of posttraumatic stress disorder (PTSD) development, with trauma-analog studies linking increased neural processing of trauma films to intrusive trauma recollections, a core symptom of PTSD. Cumulative lifetime adversity is proposed as a more distal risk factor, with research proposing a tipping point at about five events with regard to PTSD development following re-exposure to trauma. Thus, within a diathesis  $\times$  stress framework, increased peritraumatic neural processing may constitute a specific risk factor for PTSD particularly in individuals with several lifetime adversities.

#### **Method/Technique**

Fifty-three healthy women watched highly aversive films depicting severe interpersonal violence vs. neutral films during functional magnetic resonance imaging (fMRI) and reported involuntary recollections during subsequent days. Moderation analyses tested the interactive



relationship between peritraumatic neural processing and lifetime adversity in predicting intrusion load, i.e., the total number of intrusions weighted for their average distress.

#### **Results/Outcome**

Increased processing of aversive vs. neutral films in the amygdala, anterior insula, dorsal and rostral anterior cingulate cortices, as well as hippocampus predicted increased intrusion load only in participants reporting above five lifetime adversities; for participants reporting few to none, no such relationship was found; this interactive relationship explained up to 59% of variance.

#### **Discussion/Conclusion**

Peritraumatic neural processing and cumulative lifetime adversity combined their risk potential in an interactive way when predicting PTSD-like symptoms. Specifically, increased peritraumatic processing in neural networks implicated in saliency processing (amygdala, anterior insula, dACC, rACC) and memory encoding/consolidation (hippocampus) during analog trauma predicted intrusion load primarily in individuals reporting above five lifetime adversities. Thus, lifetime adversity seemed to gate the influence of peritraumatic neural processing on subsequent PTSD-like symptoms. Individuals with high lifetime adversity may benefit from emotion regulation training following stressor exposure, in order to build resilience against PTSD development. Our results indicate that this training may work by promoting down-regulation of salience network activity during psychological stressors.

By using a prospective trauma-film design, our study is, to the best of our knowledge, the first attempt to experimentally disentangle the influence of peritraumatic neural processing and lifetime adversity on vulnerability for PTSD-symptom development. Although previous research places both neural processing and lifetime adversity as risk factors for PTSD, so far, the unique and synergistic effect of these factors remains poorly understood. As real-life trauma is a rather random, rare, and heterogeneous occurrence, peritraumatic (neural) responses can only be investigated by analog trauma. The present study provides first experimental evidence for a recent account suggesting hyper-responsivity in salience network nodes as predisposing factor for PTSD development. In addition, results suggest that lifetime adversity constitutes a risk factor for intrusive memory development regardless of peritraumatic neural processing.

Conclusion. Peritraumatic neural processing and cumulative lifetime adversity combined their risk potential in an interactive way when predicting PTSD-like symptoms.

### **The Role of Childhood Trauma in Effects of Hydrocortisone on Autobiographical Memory Retrieval in Patients with Post-Traumatic Stress Disorder and Borderline Personality Disorder**

Sophie Metz, Juliane Fleischer, Moritz Düsenberg & Stefan Röpke, Charité - Universitätsmedizin Berlin, Germany

Oliver Wolf, Ruhr-University Bochum, Germany

Christian Otte & Katja Wingenfeld, Charité - Universitätsmedizin Berlin, Germany

#### **Introduction**

Stress-related mental disorders such as Posttraumatic Stress Disorder (PTSD) and Borderline personality disorder (BPD) show alterations in their sensitivity to glucocorticoids and in stress hormone-sensitive brain regions. In a previous study, we found that - in contrast to healthy individuals - patients with borderline personality disorder (BPD) and post-traumatic stress disorder (PTSD) showed better memory retrieval performance after hydrocortisone administration compared to placebo. As these results suggest an altered function of corticosteroid receptors in the brain in PTSD and BPD, we here investigated the neural correlates of autobiographical memory (AM) retrieval after hydrocortisone administration in both disorders in the same study.

#### **Method/Technique**

40 female healthy controls, 20 female patients with PTSD and 18 female patients with BPD (all without medication) participated in this placebo-controlled cross-over study. All participants were tested in an autobiographical memory task during fMRI after they received either a placebo or 10 mg hydrocortisone orally in randomized order.

#### **Results/Outcome**

Multiple regression analysis revealed a positive correlation between childhood trauma questionnaire (CTQ) scores and hydrocortisone effects on activation in the anterior medial prefrontal cortex (amPFC), ventrolateral prefrontal cortex (vlPFC), posterior cingulate cortex (PCC), angular gyrus and cerebellum. As indicated by a positive correlation, higher CTQ scores are associated with higher activation in the hydrocortisone condition than in the placebo condition in these brain areas. No cluster of activation was revealed for the reversed contrast.

#### **Discussion/Conclusion**

These results suggest that altered brain functioning during AM retrieval after hydrocortisone administration is related to childhood trauma. Effects of hydrocortisone on brain activation in relation to childhood trauma in contrast to trauma during adulthood should be further differentiated in future studies.

### **Extinction Learning as a Predictor of PTSD Symptoms in a Sample of Firefighters**

Miriam J.J. Lommen, University of Groningen, the Netherlands

#### **Introduction**

Extinction learning seems to fail in patients with posttraumatic stress disorder. Few studies have tested whether this is a consequence of PTSD symptomatology or rather a pre-trauma vulnerability factor that puts individuals at risk to develop PTSD. A previous prospective study in soldiers found reduced extinction learning pre-deployment to be predictive of PTSD symptoms after deployment, when controlling for experienced events and neuroticism (Lommen et al., 2013). The present study tested whether this finding could be replicated in another high-risk sample, namely firefighters.

#### **Method/Technique**

A fear conditioning paradigm was conducted in a sample of 508 firefighters at the baseline assessment of a 5-year prospective study. PTSD symptoms and the experience of potentially traumatic experiences were repeatedly assessed with self-report questionnaires (at baseline, 6 months later and at 1 year) and a clinical interview for PTSD at 1 year follow-up. Neuroticism was measured with a self-report questionnaire at baseline.

#### **Results/Outcome**

Results will be presented at the conference.

## **Discussion/Conclusion**

It is important to see whether earlier findings can be replicated. If reduced extinction learning is a predictor of PTSD symptom development in firefighters, future studies might focus on ways to foster extinction learning in order to prevent the development of PTSD. This knowledge adds to the general understanding of individual differences that make one vulnerable to develop PTSD.

## **Re-Examining the Role of Extinction in Prolonged Exposure for Posttraumatic Stress Disorder: Disaggregating Within-Patient and Between-Patient Effects of Session-to-Session Change**

Allison Baier & Norah Feeny, Case Western Reserve University, USA

Lori Zoellner, University of Washington, USA

### **Introduction**

Prolonged exposure (PE) is an evidence-based intervention for the treatment of PTSD but the mechanisms by which PE results in symptom change are not well understood. Previous research has shown between-session extinction learning of fear (colloquially referred to as habituation) during the trauma memory recount (imaginal exposure) is associated with better treatment outcome (Van Minnen & Hagenaars, 2002). However, the literature is limited by methodological constraints that do not account for temporal precedence of extinction or the nested hierarchical nature of longitudinal treatment data (Kazdin et al., 2007).

### **Method/Technique**

The present study used time lagged mixed regression models to examine the temporal relationships between extinction (mean SUDs across session; Wolpe & Lazarus, 1966) and PTSD symptom change (PSS-SR; Foa et al., 1993) in 86 patients randomized to PE in a trial comparing PE to sertraline. We additionally disaggregated the raw scores for each variable into scores reflecting within-patient and between-patient variability, controlling for all stable between-patient differences, and again ran the time-lagged regressions.

### **Results/Outcome**

The cross-lagged effect of SUDs in predicting PSS-SR symptom reduction was significant ( $d=.35$ ) and the reverse, the effect of PSS-SR on SUDs was also significant ( $d=.38$ ), suggesting possible reciprocity between improvements in PTSD symptoms and improvements in extinction learning. Re-running the analyses with the within- and between-patient scores as predictors revealed between-patient SUDs significantly predicted PTSD symptom reduction ( $d=.58$ ) whereby within-patient SUDs did not significantly predict next session symptom improvement ( $d=.27$ ). Similar results were found in the reverse model: between-patient PSS-SR significantly predicted next session SUDs ( $d=.43$ ) whereas within-patient PSS-SR scores did not ( $d=.02$ ). Thus, the effect of SUDs on PSS-SR and the reverse—PSS-SR on SUDs—would be better understood as a relationship explained more by the effects of stable between-patient differences than by causal processes.

### **Discussion/Conclusion**

Upon disentangling the within- and between-patient effects, extinction learning no longer predicted symptom improvements or vice versa, evidencing that the relationships shown in the aggregated model could be attributed to stable patient traits (e.g., personality) rather than to causal processes contrasting past literature and longstanding hypotheses about extinction-related mechanisms of change in PE. It is possible some patients may experience extinction whereas others may experience a concept known as distress tolerance (Craske et al., 2008). If extinction is not a necessary mechanism by which PE leads to treatment gains, therapists might consider shifting their focus away from encouraging and educating about distress ratings and reduction to focusing on the importance of corrective learning, either through extinction or distress tolerance. Additional clinical implications of the findings will be discussed.

## **Open Papers 20: Pregnancy, Family, and Relationships**

Chair: Antje Horsch, University of Lausanne, Switzerland

### **Imagining and Remembering Childbirth: A Prospective Study of Psychological Distress in First-Time Mothers**

Lynn Ann Watson, Aarhus University, Denmark

Lauren Lee, Coventry and Warwickshire NHS Trust, United Kingdom

Heather O'Mahen, University of Exeter, United Kingdom

#### **Introduction**

A small but significant proportion of mothers experience mental health difficulties such as symptoms of postnatal depression and posttraumatic stress following childbirth. Identifying psychological factors present during pregnancy that predict poorer mental health following birth allows us to identify vulnerable women and provide appropriate psychological help in order to minimize or prevent symptoms of psychological distress both prior to and following childbirth. More prospective studies in this area are necessary to help us identify key psychological factors that may be predictive of poorer mental health outcomes following childbirth.

#### **Method/Technique**

This prospective study assessed 106 first time mothers prior to and following childbirth: after 27 weeks gestation and up to 12 weeks after birth. Measures of traumatic stress, traumatic growth, depression and anxiety were obtained at both time points. In addition, mothers were asked to imagine or remember their experience of childbirth and rate 24 autobiographical characteristics of the event and their expectations about the event.

#### **Results/Outcome**

Mothers reported high levels of traumatic stress before childbirth that decreased significantly following childbirth. Traumatic growth increased significantly while levels of depression and anxiety were low across both time points. Prior to childbirth, younger age and concerns about bonding with baby were associated with higher levels of psychological distress and these variables continued to predict distress following childbirth. A number of autobiographical characteristics (emotionality, centrality, repetitive thinking and avoidance) were associated with higher levels of psychological distress prior to childbirth. However, the strongest predictor of post-natal levels of psychological distress was higher levels of psychological distress prior to childbirth.

#### **Discussion/Conclusion**

The results support previous research that higher levels of psychological distress prior to childbirth is associated with higher levels of distress in the post-natal period. Younger mothers and mothers reporting concerns about bonding may also be more vulnerable. In addition, the way in which first-time mothers imagine and remember their childbirth experiences may have consequences for the level of psychological distress they experience. More broadly, these findings contribute to the expanding literature on relationships between autobiographical event

processing and psychological wellbeing and speak to the use of imagining and remembering autobiographical events in the context of psychological treatment.

### **Couple-Based Interventions During Pregnancy: Can They Prevent Depressive Symptoms Across the Transition to Parenthood by Preserving Fair Dyadic Coping?**

**Fabienne Meier, University of Zurich, Switzerland**

**Anne Milek, University of Münster, Germany**

**Valentina Anderegg, Harvard Medical Faculty Physicians, USA**

**Christelle Benz-Fraghière & Holger Schmid, University of Applied Science Northwestern Switzerland, Switzerland**

**Kim Halford, University of Queensland, Australia**

**Guy Bodenmann, University of Zurich, Switzerland**

#### **Introduction**

The transition to parenthood is not only accompanied by joy and fulfillment, but also by a rise of distress and depressive symptoms. As these changes affect both partners, the way they cope with distress (i.e., dyadic coping) is essential. However, relationship satisfaction is known to deteriorate and a decrease of perceived fairness is common across the transition to parenthood. We therefore administered two couple-based interventions during pregnancy to prevent relationship deterioration. The current paper examines whether fairness of dyadic coping can preserve by couple-based intervention compared to a control group. Furthermore, we investigate whether fair coping is associated with lower depression and higher relationship satisfaction.

#### **Method/Technique**

Two-hundred-and-eighty-four heterosexual couples ( $N = 568$  individuals) were randomly assigned to either a waitlist control group or two couple-based interventions (low-dose and high-dose). The interventions were a compound of the Couples Coping Enhancement Training (CCET) from Switzerland and Couple CARE for Parents from Australia and focused on relationship-specific skills like dyadic coping, communication and problem solving. The low-dose intervention consisted of a psychoeducational movie, the high-dose intervention of a workshop including skill training and five home visits with coached conversations. Self-report data was collected at five time-points from the 27th week of pregnancy to 40 weeks postpartum. To obtain indices for the degree of fairness of dyadic coping, dyadic indices were created and analyzed with state-of-the-art dyadic models.

#### **Results/Outcome**

As expected, fairness of dyadic coping decreased across the transition to parenthood. Changes of fairness were different for control and interventions groups. However, directions of change were only partly in accordance with our hypotheses. The high-dose intervention showed some beneficial effects during pregnancy, but could not sufficiently preserve fairness after birth. Furthermore, fairness of dyadic coping was associated with lower depressive symptoms in all groups, but effect sizes differed between genders. While perceived fairness was more strongly associated with depressive symptoms in women of the control group, effects were stronger in men of the high-dose but not low-dose intervention group.

#### **Discussion/Conclusion**

Fairness of dyadic coping was shown to be of importance for couples' adaption to parenthood. Accordingly, the preservation of fair coping is a valid goal for couple-based interventions. However, some limitations of administering couple-based interventions during the transition to parenthood were displayed. Gender seemed to play a role as well as mode of deliverance. The promotion and protection thereof remains a challenging task for partners and practitioners. We discuss gender roles and clinical implications.

### **The Role of Acceptance in Psychological Well-Being of Parents Whose Children Suffer from Cancer**

**Javier Lopez, Cristina Velasco, Cristina Noriega & Gema Perez, University San Pablo Ceu, Spain**

#### **Introduction**

Childhood cancer is a serious disease that affects the lives of the children and the families involved significantly. Acceptance is a variable that helps role reorganization and enhances psychological flexibility when dealing with family strain. Acceptance is presented as the ability to adapt to difficulties which, in turn, is conditioned by personal and coping strategies. Most studies conducted to date have focused on the negative consequences associated with having a child who suffers from cancer. Nevertheless, studies that focus on parents' protectors of their well-being are increasing lately, despite they are still limited.

The objective of this study was to analyze the protective factors (gratitude, resilience, and coping resources) associated with the well-being of parents' of children with cancer, paying special attention to the role developed by acceptance.

#### **Method/Technique**

A sample of 78 parents participated in this study. Path analysis using the maximum likelihood method was conducted. An excellent model fit was found ( $GFI = .90$ ;  $CFI = .96$ ;  $TLI = .94$ ;  $RMSEA = .05$ ).

#### **Results/Outcome**

As can be observed in figure 1 (<https://app.box.com/s/w9lpmev91bv2o01maizd4xsn5mt87xg>), acceptance was conditioned by the coping resources positive reappraisal and social support, while social support was influenced by active coping and gratitude. Resilience also acted as a protective factor, preventing the use of strategies that do not facilitate acceptance, such as denial and auto-distraction. Furthermore, acceptance played an important role in the participants' well-being.

The child's illness-related variables did not have as much influence on the parent's well-being as the subjective perception that parents' had of these variables. According to the transactional model of stress and coping, neither primary appraisals (e.g. illness-related characteristics) nor secondary appraisals (e.g. job changes, number of children) had any influence on parents' well-being. In contrast, gratitude disposition and resilience, as well as the dispositional coping styles (active coping and positive reappraisal) became particularly relevant on parents' emotional experience during their child's illness.

#### **Discussion/Conclusion**

This study offers a broader view of the emotional experience of parents of children with cancer, and that should be considered in Cognitive Behavior Therapy (CBT). Cognitive-behaviorally-oriented psychologists can help parents to integrate the experience of the child's disease into their personal and family experience from a positive viewpoint. Gratitude, as a disposition towards life, and social support, as a coping resource, are both protective factors because they promote acceptance in parents. The promotion of acceptance, through trust and the appreciation of the professionals, can give meaning to the whole experience. The promotion by professionals of the integration of the disease

into the daily life of the child and his/her family may allow providing a better and a more humanity care that, in turn, may improve patients' and their families' well-being.

### **Delivering Cognitive Behavioral Therapy via the Internet (Internet-Based Cognitive Behavioral Therapy) for Perinatal Anxiety and Depression: Evidence and Translation to Practice**

**Siobhan Loughnan, Jill Newby & Gavin Andrews, University of New South Wales Sydney, Australia**

**Aileen Chen\*\*, St Vincent's Hospital, University of New South Wales Sydney, Australia**

#### **Introduction**

Maternal anxiety and depression is common during the perinatal period (i.e. pregnancy through 12 months postpartum), with 10-15% of mothers likely to meet diagnostic criteria for an anxiety disorder or major depressive disorder. If left untreated, anxiety and depression adversely affect both the mother and infant (e.g., poor childhood emotional and behavioural development). Cognitive behavioural therapy (CBT) is effective in the perinatal period but there are not enough CBT specialist-trained clinicians to cater for the number of patients who could benefit and few evidence-based prevention programs are available. Internet-delivered cognitive behavioural therapy (iCBT) greatly facilitates the dissemination of CBT and is a valuable means of increasing access for women.

#### **Method/Technique**

This paper reports on the outcomes of two randomized controlled trials evaluating the efficacy and acceptability of two novel transdiagnostic iCBT interventions in reducing generalized anxiety disorder (GAD) and major depressive disorder (MDD) symptoms in perinatal women, compared to usual care. These iCBT programs are unguided (i.e. no coaching or clinical guidance was provided), consist of three lessons each, and are tailored specifically to the unique challenges and concerns of mothers during pregnancy or the postpartum period. Pregnant (N=87) and postpartum women (N=131) were randomized to the iCBT treatment group or treatment-as-usual control group and completed the program over a period of 4-6 weeks. Outcome measures were collected at baseline, post-treatment, and four-weeks post-treatment.

#### **Results/Outcome**

Overall, we found both the antenatal and postpartum programs were highly efficacious in reducing symptoms, demonstrating significantly greater reductions in GAD (Hedges  $g$ 's=0.76, antenatal; 0.78, postpartum), MDD ( $g$ =0.99, postpartum), and psychological distress symptoms ( $g$ 's=0.88; 1.69) compared to women receiving usual care. Additionally, iCBT produced moderate to large improvements in maternal attachment ( $g$ 's=1.35; 1.07), quality of life ( $g$ 's=>0.63), and postpartum parenting confidence ( $g$ =0.80). Those who completed the iCBT also demonstrated high participant engagement, adherence (>70% completion rate), and treatment satisfaction.

#### **Discussion/Conclusion**

These studies provide evidence of transdiagnostic iCBT for the treatment of GAD and MDD symptoms in pregnant and postpartum women. Our findings are consistent with RCTs investigating longer, six lesson guided iCBT programs, as well as face-to-face CBT interventions for perinatal depression. Further, these findings have important clinical implications given that no other iCBT programs have specifically targeted the treatment of perinatal GAD, or comorbid GAD and MDD symptoms. Brief unguided iCBT programs that do not rely on the operation of clinicians with specialist training or coaching represent a highly scalable and cost-effective way to offer cognitive behavioural interventions to women in the perinatal period. Within a stepped-care approach, iCBT can offer mothers the option to self-refer and self-manage their symptoms and can be implemented as part of population-wide screening. Moreover, limited clinician resources can then be directed (i.e., via face-to-face treatment) towards more high-risk mothers and those experiencing severe anxiety and depressive disorders, or those who do not respond to brief, unguided iCBT.

The potential clinical value of unguided iCBT for perinatal women is substantial. iCBT can overcome barriers to accessing treatment and improve treatment coverage as a scalable and low cost 'first step' intervention for all women screening positive for distress, anxiety and/or depression in routine care. Current directions and challenges in translating iCBT to routine care, with maintained effects and treatment adherence, will also be discussed.

### **Dysfunctional Beliefs, Caregiver Burden, Anxiety and Depression in Family Caregivers of Cancer Patients in Mexico**

**Ivonne Nalliely Pérez-Sánchez, National Council of Science and Technology, Mexico**

**María Luisa Rascón-Gasca, National Institute of Psychiatry, Mexico**

#### **Introduction**

Cognitive belief systems could mediate family caregivers (FC) emotional distress. Dysfunctional thoughts about caregiving (DTC) are unreal and maladaptive goals and standards of behavior and performance that lead FC to maladaptive behaviors and emotions. DTC has been related to caregiver burden and depression in family caregivers (FC) of dependent patients and dementia patients, but there are very few studies in FC in general and we did not find anyone in FC of cancer patients.

Objective: to identify DTC association with caregiver burden, anxiety and depression symptoms in a sample of Mexican FC of cancer patients.

#### **Method/Technique**

A cross-sectional study was carried out. DTC was measured with the Dysfunctional Thoughts about Caregiving Questionnaire DTCQ. Symptoms of anxiety and depression were evaluated with The Hospital Anxiety and Depression Scale (HADS), and caregiver burden was evaluated with the Zarit Burden Interview (ZBI) during a 45 minutes interview. Pearson correlation analysis was calculated to measure the association between DTC caregiver burden, anxiety and depression symptoms. Sub-analyses by sex, age (50 years or older and 18 to 49 years old), years of study (6 or less and 7 or more), cancer progression (terminal stage or oncological treatment), relationship with patient (spousal caregiver or non-spousal caregiver) and previous experience as caregiver (yes/no) were calculated

#### **Results/Outcome**

We interviewed 173 FC who were mainly female 78.03% (135), employed 66.47% (115) and spousal-caregiver 44.5% (77). The 44.50% (77) of FC had been caregivers in the past.

DTC correlated with caregiver burden, symptoms of anxiety and depression, and these correlations varied depending on caregivers' characteristics were stronger in female, younger, non-spousal and more educated caregivers. Correlations were also higher for FC of terminal cancer patients and FC with previous experience as a caregiver

#### **Discussion/Conclusion**

Discussion. Like other studies, we found correlations between DTC depression and caregiver burden. We also found correlations with anxiety symptoms. As another study sex, age and level of education influenced correlations between DTC and FC's burden, anxiety and

depression. We found more correlations in females caregivers. These correlations could be influenced by the caring obligation imposed by social rules to women. These rules usually reduce female options to refuse caregivers role. Something similar happened with non-spousal FC because a large proportion of them that become in FC because they have not other option. Finally, other studies have pointed out the added stress experienced by young caregivers and FC of a terminal cancer patient. Young usually had a lack of experience and multiple roles while a terminal stage of cancer use to increase the time and the number of caring activities.

Conclusion. Dysfunctional thoughts about caregiving are related with caregiver burden, anxiety and depression, and the distress associates could be higher to female, younger, non-spousal caregivers. Cancer stage and Caregiver experience also seem play an important role in this relation.

## **Open Papers 21: Information Processing Biases and Psychopathology**

**Chair: Charlotte Wittekind, Ludwig Maximilian University of Munich, Germany**

### **Is Disruptive Worry Characterised by Misalignment of Attentional Bias to Variation in Controllability of Danger?**

**Jessie Georgiades, Lies Notebaert, Kelly Cusworth & Ben Grafton, University of Western Australia, Australia**

**Elaine Fox, University of Oxford, United Kingdom**

**Colin MacLeod, University of Western Australia, Australia**

#### **Introduction**

A heightened disposition to worry has known negative effects, as it can interfere with everyday functioning and is causally implicated in anxiety pathology. For some individuals however, worry can also be experienced positively as the “mental problem-solving activity designed to prevent the occurrence of traumatic future events” (Borkovec, Robinson, Pruzinsky, & DePree, 1983, p. 2). Experimental psychopathology researchers have established that one of the basic processes underpinning a heightened tendency to worry is an attentional bias towards threat cues. Attentional bias to threat is the tendency to preferentially direct and allocate attention towards threatening stimuli in the environment, in comparison to neutral or positive stimuli. At present however, it remains unknown whether different attentional processes underpin the type of worry which interferes with everyday functioning (disruptive worry) versus the type of worry which does not interfere with everyday functioning (non-disruptive worry). Attentional biases are typically considered maladaptive; however, attentional bias to threat cues could serve an adaptive function when the dangers they signal can readily be controlled by timely action. In the current study, we propose the novel hypothesis that more disruptive worry may be characterised by an inability to calibrate attentional bias to factors that determine whether it is adaptive to attend to threat cues. While it is more adaptive to attend to threat cues when the dangers they signal are controllable, as compared to when these dangers are uncontrollable, we predicted that individuals with heightened worry characterised by high disruption on functioning would fail to make this distinction. Thus, they would be characterised by impaired alignment between attentional bias to threat and variation in the controllability of danger.

#### **Method/Technique**

Participants ranging in the frequency with which they worried were invited to participate. They were assessed on worry level (PSWQ) and the degree to which worry interfered with everyday functioning (WSAS). In addition, they completed an attentional bias alignment task, based on the dot-probe attentional bias assessment task. In this alignment task, in some blocks (Control Possible Blocks), participants could avoid the danger (money loss and loud noise burst) signaled by the threat cue through a specific action which required attending to the threat cue. In other blocks (Control Impossible Blocks), participants could not avoid the danger, and it was more adaptive to attend to the non-threat cue as this allowed gaining money.

#### **Results/Outcome**

Results showed that the task was capable of indexing individual differences in attentional bias alignment, as participants showed a greater attentional bias to the threat cue in Control Possible Blocks than in Control Impossible Blocks. Partial support for the proposed hypothesis was obtained, as worry was associated with impaired alignment.

#### **Discussion/Conclusion**

These results have implications for our understanding of the basic processes which may underpin different types of worry, and may be informative for the development of novel treatment approaches targeting the attentional anomalies characterising pathological worry.

### **Trait Anxiety-Linked Impairment in Attentional Bias Alignment: An Eye-Tracking Study**

**Matthew Herbert, Lies Notebaert, Colin MacLeod, Nigel Chen & Julian Basanovic, The University of Western Australia, Australia**

**Elaine Fox, The University of Oxford, United Kingdom**

#### **Introduction**

Anxiety disorders are alarmingly common, with more than one in five individuals developing an anxiety disorder in their lifetime. Anxiety disorders have tremendous impact on the individual, their friends and family, and on society through direct and indirect treatment costs. Therefore, it is vital to enhance understanding of the processes that underpin anxiety pathology to enhance our capacity to develop effective treatments. Experimental psychopathology researchers have shown that a heightened tendency to experience anxiety is causally underpinned by an increased attentional vigilance to threat. While this is well established, at present it is less clear what the attentional processes are that differentiate pathological from non-pathological anxiety. Recent research however has proposed, and provided preliminary evidence for, a novel hypothesis which states that dysfunctional anxiety may be characterized by an impaired ability to be vigilant for threat cues only when it is adaptive to attend to threat cues, i.e. when the dangers they signal can be controlled. Instead, dysfunctional anxiety may be characterized by a tendency to be vigilant for threat cues irrespective of whether these threat cues signaling can be controlled. This was labeled in impairment in attentional bias alignment. The current study aimed to replicate and extend this finding, by examining attentional bias alignment in individuals varying in the degree to which they experience dysfunctional anxiety, and by utilizing eye-tracking technology.

#### **Method/Technique**

Participants completed an attentional bias alignment assessment task that presented threat cues which signaled the danger of losing money and hearing an aversive white noise burst. High control blocks provided a high chance of avoiding this danger if participants were vigilant for the threat cues, while low control blocks provided a low chance of avoiding danger if participants were vigilant for the threat cues

#### **Results/Outcome**

Results showed that attentional vigilance for threat cues was generally greater in high control blocks compared to low control blocks, suggesting overall alignment of attentional bias to variation in danger controllability. Additionally, it was observed that individual

differences in anxiety moderated this effect, as more anxious participants showed less alignment, replicating previous findings. This effect was observed both in the behavioral data, and in eye tracking data.

#### **Discussion/Conclusion**

These results suggest that high trait-anxiety is associated with impaired ability to flexibly alter attention depending on the level of danger controllability signaled by threat, and that this result is consistently observable across assessment measures. These results have important implications for cognitive models of anxiety describing the basic attentional processes underpinning pathological anxiety. In addition, these findings may lead to the development of novel attentional bias modification treatment approaches which focus on training increased attentional bias alignment.

### **Attentional Bias and Its Temporal Dynamics Among War Veterans Suffering from Chronic Pain: Investigating the Contribution of Post-Traumatic Stress Symptoms**

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**Kelsey Vig, University of Regina, Canada**

**Seyran Ranjbar, Shahid Beheshti University, Iran**

**Mohammad-Reza Ebrahimi, University of Medical Sciences, Iran**

**Ali Khatibi, McGill University, Canada**

#### **Introduction**

Chronic pain frequently co-occurs with post-traumatic stress symptoms (PTSS) (Ravn et al., 2018). Two theoretical models posited to explain the association between chronic pain and PTSS (Sharp and Harvey, 2001; Asmundson et al., 2002) suggest attentional bias to threat as one of the potential mechanisms that contribute to the co-occurrence of these conditions. However, despite this theoretical importance, research on attentional bias in chronic pain and PTSS is very limited. The current study was the first study that investigated both conventional and variability measures of attentional bias using the dot-probe task in those with chronic pain and PTSS.

#### **Method/Technique**

Fifty-four Iran and Iraq war veterans with chronic pain and 30 age/education-matched control participants without chronic pain and history of war participation were recruited. Exclusion criteria included any diagnosis of a neurological disorder, a history of psychotic disorder, or current substance abuse. PTSD symptoms, pain intensity, fear of pain, depression, anxiety and stress were measured using relevant self-report measures. Attention was assessed using a modified version of the dot-probe task (MacLeod, Mathews, & Tata, 1986). Each trial began with the presentation of a fixation cross in the center of the monitor. After 500 ms, two pictures of facial expressions were presented one above the other. Each trial consisted of one painful or happy face and one neutral face which remained on screen for 500 ms and followed by a probe (i.e., a dot) that appeared in the location of either the neutral or emotional face. Participants were instructed to locate the dot by pressing the corresponding button as quickly and accurately as possible. The task included 16 practice trials, which used nature pictures, and 80 experimental trials. For the data preparation, in line with Price et al. (2015) recommendations for dealing with outliers in the dot-probe task, Winsorizing procedure was used to eliminate extreme values while maximizing power and accuracy. We calculated both traditional indices of attentional bias as well as parameters of Trial-Level Bias Scores (TL-BS) separately for each emotional type (Zieville et al., 2015).

#### **Results/Outcome**

The results showed that veterans directed attention away from painful facial expressions (i.e., avoidance) relative to both the control group (between-subject effect) and relative to zero (within-subject effect). Veterans also showed significantly elevated attentional bias variability for both happy and painful facial expressions compared to controls. Attentional variability showed a significant positive association with PTSS and depression among all participants. Regarding Split-half reliability, for all participants, TL-BS parameters showed higher reliabilities (0.27 to 0.74) compared to the traditional bias scores (-33 to -36).

#### **Discussion/Conclusion**

Our results were in line with previous studies finding greater attention bias variability for threat-related stimuli in individuals with PTSD (Bardeen et al., 2016; Naim et al., 2015). In addition, avoidance of pain cues may be a coping strategy that these individuals develop under stressful conditions. Theoretical and clinical implications, limitations, and directions for future are discussed.

### **Cognitive Biases in Depression: A Systematic Review and Meta-Analysis Based on Self-Report Questionnaires**

**Ines Nieto, Elena Robles & Carmelo Vazquez, Complutense University of Madrid, Spain**

#### **Introduction**

Cognitive biases have an important role in the development and maintenance of depression (Joorman & Gotlib, 2016). Different cognitive models have pointed them out as a possible vulnerability factor. The model that has received most attention is Beck's diathesis-stress model in which a sequence schemas → cognitive biases → automatic thought → symptoms is proposed. More specifically, Beck (1967) suggested that cognitive schemas may be a vulnerability factor that is activated during stressful negative events, leading to information processing biases which, in turn, lead to automatic thoughts (about the self, world, and future) and depressive symptoms.

In the past decades, studies of cognitive biases in depression have proliferated and authors have suggested some hypothetical links with brain dysfunctions (Beck & Brademeier, 2016). Although there is a rather robust evidence, based on experimental paradigms, of biases in attention, interpretation and memory (Everaert, Joster & Derakshan, 2012), to date no systematic quantitative reviews have integrated evidence on the existence and magnitude of cognitive biases in depression. The results from the meta-analysis that will be presented would allow to clarify the role of cognitive biases in depression in adults compared to other groups of individuals (i.e. healthy groups or different (sub)clinical groups) as measured in research studies, as it usually happens with depressive symptoms, by self-report questionnaires.

#### **Method/Technique**

A systematic search was performed on different databases (PsycINFO and PubMed) using terms related to the spectrum of depression, comparison groups, and the different cognitive biases found in the literature. Restrictions for the search were papers in English with adult samples using self-reported measures of biases. Moreover, studies classified in areas apart from clinical psychology (e.g., academic learning or physical illness) were excluded.

## Results/Outcome

Abstract and full review of the papers found in the search was made by two reviewers (ER and IN). A great heterogeneity characterized the 3558 (1981 in PsycINFO and 1577 in PubMed) initial candidates found in the search measuring cognitive biases. Finally, a total of 37 papers were selected based upon the criteria of including studies with validated clinical self-report measures of cognitive biases and use of comparison groups. One initial finding of this exhaustive search revealed that, surprisingly, not many studies fit to these criteria. On one hand, there was a limited number of studies about information processing biases (i.e., cognitive) that characterize depression, being the focus on other variables such as cognitive schemas, dysfunctional attitudes and automatic thoughts. On the other hand, the methods used to measure each cognitive bias are highly different between studies, including a variety of experimental tasks rather than validated self-questionnaires.

Random-effects meta-analyses are currently being performed, using the software Review Manager (The Cochrane Collaboration, 2014), for different cognitive biases, which provide overall standardized mean difference with Hedge's correction (g). Moderator analyses include the following variables: nationality of the corresponding author, year of publication, quality of primary studies (e.g., use of validated diagnostic instruments, use of validated questionnaires, matching of groups), type of sample, gender of participants, characteristics of the sample (diagnosis, severity, medication, treatment), and type of questionnaire used to measure cognitive bias. The quality of individual studies, and the meta-analysis itself, were assessed following standard sets of recommendations (PRISMA, Cochrane, APA) to qualify the results obtained in the meta-analysis, which has been registered in PROSPERO (CRD42018115365).

## Discussion/Conclusion

The meta-analysis is currently being conducted and a full report of the results will be provided and discussed. We will discuss the paucity of the empirical research conducted on this field, and the implications of the results for advancing our knowledge on the cognitive mechanisms taking place in the development and maintenance of depression. Implications for future research on basic processes in depression, as well as their implications for prevention and intervention strategies, will be also presented.

## Does Memory Bias Predict Generic Psychiatric Symptoms and Dysfunction in Psychiatric Patients? Results of a Four-Year Longitudinal Naturalistic Cohort Study

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## Introduction

Cognitive models have proven to be valid frameworks in our understanding of the development and maintenance of psychiatric disorders (e.g. Beck & Haigh, 2014). The model of Beck, for example, describes that experiencing childhood trauma results in dysfunctional assumptions about the self, the world and the future, in turn influencing information processing, and subsequently leading to the development of psychopathology. Negatively biased memory is consistently found in depression (e.g. Gaddy & Ingram, 2014). A causal link between the strength of memory bias and symptoms is proposed, making memory bias a risk factor for the onset, maintenance and recurrence of depression (DeRaedt & Koster, 2010). In fact, two studies found that the strength of memory bias predicted depressive symptoms (follow-up at 9 months; Johnson et al., 2007) as well as recurrence (follow-up at 3 years; LeMoult et al., 2017). Interestingly, there is emerging evidence for negative memory bias in other psychiatric disorders, e.g. substance abuse disorders (Littel, Euser, Munafò, & Franken, 2012), and borderline personality disorder (Mitte, 2008; Winter, Elzinga, & Schmah, 2014). May memory bias also hold a causal link with psychiatric symptoms other than depression?

## Method/Technique

The aim of the present study was to 1) assess the relevance of both childhood trauma and memory bias as markers for generic psychiatric symptoms and psychosocial disfunctioning, and 2) examine the predictive value of memory bias on psychiatric symptoms in a naturalistic patient sample. Including a heterogeneous sample is important because in symptoms tend to exceed singular disorders and comorbidity is common (Steele et al., 2018). At baseline, childhood trauma and memory bias were assessed in 250 psychiatric patients and generic psychiatric symptoms/psychosocial disfunctioning were assessed at baseline and at 1, 2, 3, and 4 years follow-up. We studied the predictive value above and beyond the baseline scores using a rather strict autoregression statistical approach.

## Results/Outcome

At baseline, both more childhood trauma and stronger negative memory bias were associated with higher levels of generic psychiatric symptoms/psychosocial disfunctioning. This association was also found after three years, but, interestingly, not after one, two or four years. The same pattern of results was also found in the subsample without current and/or past depression.

## Discussion/Conclusion

Negative memory bias and childhood trauma are related to psychiatric complaints and disfunctioning. In accordance with previous studies, both factors may be causally related to symptomatology, but evidence for the predictive value is still inconclusive. It is, for example, unclear at which timeframe associations arise. These findings are discussed in light of similar results and possible future applications of memory bias, for example as a severity measure, relapse indicator and Cognitive Bias Modification (CBM) procedures (Beard, 2011). We argue that cognitive biases and its predictive value should be studied more in samples with comorbidity. The present study is a first example of this approach.

## **Open Papers 22: Gaming, Smartphone, and Internet-Based Addictions**

**Chair: Frank Ryan, Imperial College London, United Kingdom**

### **Conditional Direct and Indirect Effects of Social Anxiety, Depression and Self-Efficacy on Social Addiction Among Japanese University Students**

**Catherine So-Kum Tang, National University of Singapore, Singapore**

**Masao Yogo, Doshisha University, Japan**

#### **Introduction**

Social networking sites/platforms (SNS) are Internet-based or web-based virtual communities where users interact with real-life friends as well as meet other people with common interests. With the rapid increase of SNS users, there is also increasing concern that SNS use can become addictive, especially among high school and university students who are at the developmental stage when self-presentation and relation with others are the most important. SNS addiction refers to the addictive use of SNS accompanied by an overall sense of lack of control and other addiction symptoms such as mood modification, inability to cut down, withdrawal, tolerance, conflict, and relapse. This study aimed to identify the associations among various psychological factors that may lead to SNS addiction.

#### **Method/Technique**

Based on the transactional model of stress and coping, a moderated multiple mediation model was tested. This model specifies that social anxiety is related to SNS addiction in university students, and this social anxiety-addiction relationship is mediated by depression and self-efficacy beliefs. Gender will interact with psychological factors in influencing SNS addiction. This study employed a cross-sectional design and 1015 university students in Japan completed self-administered questionnaires.

#### **Results/Outcome**

About 34.3% of the students could be classified as SNS addicts. Relative to non-addicts, SNS addicts were more likely to be women, to have younger age, and to report higher levels of social anxiety and depression. Results showed that social anxiety and depression was correlated with SNS addiction in the expected direction. Depression was a more salient mediator than self-efficacy in influencing the effect of social anxiety on SNS addiction, and this mediation effect was moderated by gender. For women, social anxiety only exerted an indirect effect on SNS addiction mainly through depression. For men, social anxiety exerted both direct as well as indirect effects on SNS addiction.

#### **Discussion/Conclusion**

Social anxiety and depression are common experiences among university students. SNS addiction is a mental health condition with many aversive consequences, and it requires public attention and intervention. Results of this study converged to show the robust associations among social anxiety, depression, and SNS addiction. Socially anxious students, particularly those with depressive symptoms, are vulnerable to develop SNS addiction. This study points to the importance of early identification and management of social anxiety and depression among university students in order to prevent and/or reduce the occurrence of SNS addiction.

### **The Effect of Parent-Child Conflict and Negative Affectivity on Internet-Related Addictions Among Singaporean Adolescents**

**Yvaine Yee Woen Koh &, Catherine So-Kum Tang National University of Singapore, Singapore**

#### **Introduction**

While it has been well-established from past studies that behavioral addictions is associated with mental health issues, the factors influencing or contributing to this relationship is unclear. Family plays a central role in the development and socialization of adolescents and existing explanatory models and related studies have typically focused on substance and chemical addiction such as smoking, alcohol and drug use..

#### **Method/Technique**

The current study adopted a family-based approach in understanding internet-related addictions among adolescents in an attempt to particularly investigate the role of parent-child conflict on Internet-related addictions among adolescents. The current study recruited 295 Singaporean adolescents. Internet, social networking and online gaming addictions were measured using validated psychological instruments. The effect of parent-child conflict and negative affectivity (anxiety and depression) were investigated. Demographic factors (age, gender, family income and education level) were also included as predictors.

#### **Results/Outcome**

The results showed that 11.1%, 15.9% and 19.4% of the adolescents were addicted to Internet, social networking and online gaming respectively. Multivariate regression showed that higher parent-child conflict and negative affectivity could significantly predict higher Internet-related addictions. Besides that, results also showed that younger male students were more addicted to online gaming, whereas female students were more addicted to social networking addiction.

#### **Discussion/Conclusion**

The results highlighted the importance of parents' involvement in the development of behavioral addictions among adolescents. It is suggested that the involvement of parents as well as handling of affective disorders such as depression and anxiety in the course of CBT is essential in order to better manage Internet-related addictions among adolescents.

### **The Effectiveness of Two Weekly Sessions of Motivational Enhancement Program, Overuse Prevention Coping Skills Training in Preventing Smartphone Overuse**

**Huei-chen Ko, Asia University, Taiwan**

#### **Introduction**

Although smartphones play an essential role in many people's daily life, studies have showed adverse effects associated with the problematic smartphone use such as higher interpersonal anxiety, more depressive symptoms, and sleep disturbances among college students. The present study was designed to examine the effectiveness of the motivational enhancement program, overuse prevention coping skills training, and the mixed program in preventing Smartphone overuse compared to the program health life education.

#### **Method/Technique**

A total of 200 college students were randomly assigned into either of four programs, including 42 in a motivational enhancement program for healthy smartphone use, 39 in an overuse prevention coping skills training for smartphone use, in a mixed program and in a health life program. The daily use time for smartphone and self-efficacy in controlling Smartphone use were assessed prior to and following two



sessions of group, at the one-month follow-up, and two-month follow-up. Motivational enhancement techniques were used to help students to gain insights into the costs and benefits of their smartphone use and develop problem-solving strategies for controlled smartphone use. The overuse prevention coping skills training program guided students monitoring and identifying those that trigger overuse thoughts, feelings and actions, as well as learning new coping skills and overuse prevention strategies.

#### **Results/Outcome**

The GEE results revealed that four intervention programs demonstrated significant increases in the self-efficacy in controlling Smartphone use but did not reach inter-group differences. The mixed program showed significantly greater decreases in the non-learning Smartphone use time and internet use time during weekend compared to the health life education program at the assessment of post-test, the one-month follow-up, and two-month follow-up.

#### **Discussion/Conclusion**

Further studies may extend the follow-up period to test the long-term effect of the preventive program.

### **A Comparison of Online Gaming Addiction Among Adolescent and Young Adults**

**Jamaica Pei Ying Tan & Catherine So-Kum Tang, National University of Singapore, Singapore**

**Michael Njauw, University of Chicago, USA**

#### **Introduction**

Online Gaming Addiction (OGA) is characterised by an excessive and poorly controlled preoccupations, urges, or behaviours involving internet gaming despite the presence of negative psychosocial consequences (Griffiths, 2005). Existing literature have demonstrated that young age is a strong predictor for OGA (Kuss & Griffiths, 2012). However, most research study on OGA was conducted among adolescents and little comparison was made with other age groups. The present study aimed to compare OGA among adolescents and young adults and to investigate the association between OGA and risk factors (social anxiety and depression) in a United States sample.

#### **Method/Technique**

Adolescents and young adults were recruited through convenience sampling via an online platform or interviews. A total of 1771 participants were involved in the study by completing a 15 minutes self-reported questionnaire. Age was plotted against percentage of participants with OGA to identify the trends of OGA across different age group on the various risk factors. Independent sample t-test was conducted to investigate age difference. Pearson correlation and hierarchical regression analyses were performed to determine the relationships among variables.

#### **Results/Outcome**

Prevalence of OGA was 18.5% in the total sample (2.4% for adolescents, 16.1% for young adults). Results demonstrated significant age differences with young adults scoring higher in OGA, social anxiety, and depression, compared to adolescents. A positive correlation was also found among OGA, age, social anxiety, and depression. Across age, greater percentage of participants with OGA was males, at risk of social anxiety and depression. Among adolescents, higher level of social anxiety was found to be a predictor for OGA whereas for young adults, higher level of social anxiety and depression could predict OGA.

#### **Discussion/Conclusion**

Excessive online gaming may function as an escape or coping mechanism in an attempt to alleviate psychological distress. As one transit from adolescence to young adulthood, increasing life responsibilities and pressure may result in the need to source for an outlet (i.e. in the form of online gaming) to escape from reality (Chiu, Lee, & Huang, 2004; Griffiths, 2009). However notably, only social anxiety was able to predict OGA among adolescents. This may be attributed to differences in coping strategies among adolescents and young adults when faced with psychological distress and may also signal the differences in motive for engagement in OGA among the age group (Li, Liao, & Khoo, 2011).

Cognitive-Behavioural Therapy (CBT) can be a useful intervention to target OGA among adolescents and young adults. Results from the study provide evidence for the tailoring of CBT to the specific needs of different age group at various stages of development.

## **Risk Factors for Internet Gaming Disorder Among Spanish Adolescents and Youths: Implications for Prevention and Treatment**

**Mónica Bernaldo-de-Quirós, Marta Labrador-Méndez, Francisco J. Labrador, Iván Sánchez-Iglesias, María González & Marina Vallejo, Complutense University of Madrid, Spain**

### **Introduction**

Playing video games is a very popular form of entertainment among adolescents and youths. Internet gaming disorder (IGD) has become a topic of increasing research interest since its inclusion in Section 3 of the DSM-5. There are persistent reports that the internet gaming, or certain ways of playing internet games produce negative effects of personal and social relevance, such as the emergence of problems with sleep, impact on general well-being and a higher incidence of mental health problems including a lower degree of self-control. In order to predict, diagnose, and manage Internet Gaming Disorder, researchers have attempted to identify the causes and negative consequences of excessive gaming as well as risk factors of Internet Gaming Disorder. Some research, however, has only focused on psychological factors or Internet gaming characteristics, such as the level of Internet usage, money spent on gaming, and type of game device. A comprehensive approach based on both psychological factors and Internet gaming characteristics is needed to better understand Internet Gaming Disorder. The aim of this study is to identify risk factors that predict Internet Gaming Disorder, based on psychological factors and Internet gaming characteristics, among a representative sample of Spanish adolescents and youths.

### **Method/Technique**

The sample comprised 2887 students, aged between 12 and 22 years ( $M = 15.35$  years;  $SD = 2.69$  years) from 38 secondary schools. Of these, 57.5% were male ( $n = 1659$ ). Addictive behaviors of video and internet gaming were assessed using the Gamer Test, an online instrument which included questions concerning: sociodemographics; patterns of gaming habits; weekly gameplay; attitudes and cognitions about gaming; impulsivity; personal, social and school functioning; the General Health Questionnaire (GHQ-12, Golberg et al., 1997); and the Internet Gaming Disorder Test-Short Form (IGDS9-SF, Pontes & Griffiths, 2015).

### **Results/Outcome**

A majority of the subjects (75.3%) reported using video or internet games. Risk factors for Internet Gaming Disorder based on psychological factors and Internet gaming characteristics will be examined using logistical regression.

### **Discussion/Conclusion**

Findings will be discussed, compared with results of other studies and showed with accordance of addiction theories. Identifying risk factors that predict Internet Gaming Disorders may be relevant to design prevention policies, moreover recommendations will be given for the treatment of Internet Gaming Disorder.

## **Open Papers 23: Bullying and Conduct Problems**

**Chair: Thomas Ollendick, Virginia Polytechnic Institute and State University, USA**

## **A Systematic Review and Evaluation of Clinical Practice Guidelines for Children and Youth with Disruptive Behavior: Rigor of Development and Recommendations for Use**

**Brendan F Andrade & Darren Courtney, University of Toronto, Canada**

**Stephanie Duda, McMaster University, Canada**

**Madison Aitken, Peter Szatmari & Joanna Henderson, University of Toronto, Canada**

**Kathryn Bennett, McMaster University, Canada**

### **Introduction**

Children and youth with Attention-Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), Conduct Disorder (CD) and Aggression, are some of the most frequently referred groups to mental health centers (Merikangas et al., 2011), likely because they experience disproportionately high peer and family impairments, academic underachievement (Leadbeater & Ames, 2017) and increased likelihood of diagnoses of depression and anxiety (Copeland, Shanahan, et. al, 2009). Effective interventions, including cognitive behavioral therapy (CBT), to prevent negative outcomes and promote adaptive social, emotional and behavioral functioning for these children is of paramount importance. However, a variety of factors, including lack of knowledge of evidence-based clinical practices, may prevent children with disruptive behavior from getting effective mental health care (Rushton, Fant, & Clark, 2004). Clinical practice guidelines (CPG) provide a framework for evidence-based practice and their implementation may improve outcomes; however, few studies have assessed the methodological quality of the numerous CPGs available.

### **Method/Technique**

This study was a systematic review of CPGs for the assessment, prevention and treatment of ADHD, ODD, CD and Aggression in children and youth. A research librarian developed and conducted a detailed literature search to identify potentially eligible CPGs. Search strategies and methods used in this study followed the Preferred Reporting Items for Systematic Reviews (PRISMA) guidelines. Eligible records met the following inclusion criteria: (i) English language; (ii) documents labeled practice guideline, practice parameter, or consensus or expert committee recommendations, or documents with the explicit objective or methods to develop original guidance/recommendations; (iii) published, revised, updated or reaffirmed between 2005-2017; (iv) addressed the assessment, prevention or treatment of ADHD, CD, ODD, or maladaptive aggression; and (v) relevant to children and youth  $\leq 18$  years of age. Documents meeting the inclusion criteria were excluded if determined to be a literature review that contained summary statements regarding clinical implications/recommendations.

### **Results/Outcome**

Systematic review identified 588 full text articles of which 29 CPGs met inclusion criteria and were appraised using the Appraisal of Guidelines for Research and Evaluation II (AGREE II) validated tool. Inter-rater agreement on the AGREE II overall item score was excellent ( $ICC = 0.92$ ,  $95\% CI = 0.84-0.96$ ). Twenty-two guidelines addressed ADHD, 2 CD, 1 ODD, 2 for Behavior Disorders collectively and 2 for Aggression. Among the 29 guidelines, two that were developed for ADHD (National Collaborating Centre for Mental Health, 2013a; Spanish Ministry of Health, 2010) and one practice guideline developed for CD (National Collaborating Centre for Mental Health, 2013b) showed high quality on all three AGREE II domains assessed. Those meeting minimum quality included one guideline for behavior disorders (Gorman et al., 2015), two for ADHD (American Academy of Pediatrics, 2011; Scottish Intercollegiate Guidelines Network, 2009), and two for Aggression (Knapp, Chait, et. al., 2012; Scotto Rosato et al., 2012).

## **Discussion/Conclusion**

Practice guidelines hold promise for enhancing the use of evidence-based interventions, such as CBT, for children with disruptive behavior. Findings from this systematic review provide important information about the quality of CPGs to inform guideline selection for clinicians and organizations that want to implement best-practice clinical services for children with disruptive behavior.

## **The Global Prevalence and Attributable Burden of Child and Adolescent Bullying Victimization to Depressive and Anxiety Disorders**

**Hannah Thomas, Holly Erskine, Damian Santomauro, Alize Ferrari, Harvey Whiteford & James Scott, The University of Queensland, Australia**

**Theo Vos, University of Washington, USA**

### **Introduction**

Bullying victimisation (being bullied) is an ongoing public health concern for children and adolescents worldwide, and is an intervention focus for many countries. There is now strong evidence that demonstrates bullying victimisation is associated with several adverse long-term outcomes including increased risk of internalising disorders, over and above pre-existing mental health problems. For the first time, bullying victimisation has been formally recognised as a disease risk factor for depressive and anxiety disorders in the latest iteration of the Global Burden of Disease Study (GBD), GBD 2017. This presentation will describe the prevalence and attributable burden of bullying victimisation to depressive and anxiety disorders over the life course.

### **Method/Technique**

Three electronic databases (PubMed, PsycINFO, and Embase) and the Global Health Data Exchange were searched to identify studies reporting the prevalence of bullying victimisation and the longitudinal association between bullying victimisation and internalising disorders. A total of 351 studies met inclusion criteria for the prevalence component of the study. A series of meta-regressions were conducted to estimate the overall pooled prevalence of bullying victimisation by age, sex, and geographic region. The systematic search also identified 23 longitudinal studies reporting the association between bullying victimisation in childhood and adolescence, and the later development of anxiety and/or depressive disorders. The results of these studies were then pooled in a meta-analysis to estimate overall relative risk (RR). For the attributable burden analysis, prevalence estimates were adjusted for the proportion of children and adolescents attending school by sex. Population attributable fractions (PAFs) were calculated via a cohort method for depressive and anxiety disorders to adjust for differences in length of follow-up between exposure (bullying victimisation) and outcome (depressive or anxiety disorders).

### **Results/Outcome**

The estimated global prevalence of bullying victimisation in the past 12 months is 11.3% (95%CI 10.7% – 12.1%). This presentation will also describe the prevalence by age, sex, and geographic region. In addition, is estimated that approximately 30.2% of those who experience bullying victimisation, also perpetrate bullying against their peers. Globally, across all ages and both sexes, bullying victimisation is responsible for 3.7% of the burden due to major depressive disorder, and 5% of the burden due to anxiety disorders. The global attributable burden of bullying victimisation was 14.5% for major depressive disorder, and 15.6% for anxiety disorders for both sexes in the age group 10-24 years.

### **Discussion/Conclusion**

This research establishes the evidence of the temporal relationship between exposure to bullying victimisation and the later development of depressive and anxiety disorders. It also demonstrates for the first time the proportion of the burden of depressive and anxiety disorders that is directly attributable to bullying victimisation. Appropriate bullying prevention and intervention is an opportunity to reduce the incidence of these internalising disorders. Greater access and uptake of strategies that reduce bullying victimisation will in turn reduce the incidence of depressive and anxiety disorders. The final part of this presentation will discuss the scope for improving intervention and prevention strategies in school-based settings, and in clinical practice. The presenter will also share how these results from GBD 2017 are freely and publicly available, and share how region specific results can be used to lobby governments, health and education agencies to allocate resources to interventions.

## **Indirect Effects of Parental and Peer Attachment on Bullying and Victimization Among Adolescents: The Role of Negative Automatic Thoughts**

**Raluca Balan, Anca Dobrean & Robert Balazsi, Babeş-Bolyai University, Romania**

### **Introduction**

The association between parental and peer attachment and youths' bullying involvement is well documented. However, there is little research examining mechanisms linking the quality of relationships with parents and peers to bullying perpetration and victimization. A potential mechanism linking parent and peer attachment to bullying could be through youths' dysfunctional thinking, specifically negative automatic thoughts. Beck's cognitive theory postulates that children develop maladaptive cognitive schemas through negative experiences with both their caregivers and peers. Further, these cognitive schemas are held to manifest on daily life through negative automatic thoughts about self, the world and others, and to guide people's behavior in multiple contexts, including social interactions.

The present study aims to expand on existing research by testing the indirect effects of attachment to mothers, fathers, and peers on youths' involvement in bullying as perpetrators as well as victims via adolescents' negative automatic thoughts, and by promoting understanding of the mechanisms involved in youths' bullying behavior from an integrated interpersonal-cognitive framework. It was predicted that quality of attachment to the mother, to the father, and peers will be each negatively associated with adolescents' negative automatic thoughts, which in turn, will be positively associated with youths' bullying perpetration and victimization. Our second objective was to explore the role of specific themes of the negative automatic thoughts in the association between attachment to parents and peers and involvement in bullying perpetration and victimization. More specifically, we tested the indirect effects of poor relationships with parents and peers on bullying perpetration and victimization via specific cognitive contents of negative automatic thoughts—physical threat, social threat, failure, and hostility.

### **Method/Technique**

Participants included 476 adolescents (199 boys and 277 girls), enrolled in public middle and high schools. The age of participants ranged from 10 to 17 years. Data were collected from several Romanian public schools. Questionnaires were administered in the classrooms during school hours, in the presence of a trained research assistant. Measures included Inventory for Parent and Peer Attachment—Revised,

Children's Automatic Thoughts Scale-Negative/Positive and Adolescent Peer Relations Instrument. The proposed models were tested using a path analysis (i.e., a structural model with observed variables) with AMOS software.

#### **Results/Outcome**

Path analysis indicated that attachment to both parents as well as attachment to peers was indirectly related to both bullying and victimization through their relationship with adolescents' negative automatic thoughts. When particular cognitive contents of negative automatic thoughts were examined, only hostile thoughts emerged as a mechanism explaining the association between poor relationships with parents and peers and bullying involvement as perpetrator, whereas poor attachment with each socialization agent had an indirect effect on bullying victimization via hostility and social threat thoughts.

#### **Discussion/Conclusion**

The current study emphasizes the impact of parental and peer attachment on youths' involvement in bullying behavior and identifies dysfunctional cognitions in the form of negative automatic thoughts as a mechanism linking negative attachment experiences with mothers, fathers, and peers to bullying perpetration as well to victimization. In addition, our study suggests that not all negative automatic thoughts are relevant for explaining the association between poor relationships and bullying involvement. It is only hostility and social threat thoughts that are. Anti-bullying prevention and intervention programs should aim to reduce these negative automatic thoughts and to develop healthy relationships with parents and peers.

### **'More than a Feeling': A Multimodal Study of Emotion Processing in Children with Conduct Problems and Varying Levels of Callous Unemotional Traits**

**Jaimie Northam, David Hawes & Mark Dadds, University of Sydney, Australia**

#### **Introduction**

Children with high Callous Unemotional (CU) traits have unique affective profiles, representing a subgroup of Conduct Problems (CPs) (Frick, Ray, Thornton & Kahn, 2014). When compared to children with CPs and low CU traits, those with high CU traits demonstrate physiological hypoarousal, problems in recognising, orienting and attending to emotionally-salient information, and reduced emotional reactivity, resulting in a range of emotion-processing deficits (Fanti, 2018). These deficits are thought to influence long-term prognoses and key emotional learning processes, including moral socialisation and the internalisation of prosocial rules and values (e.g. Fowles & Kochanska, 2000). However, findings have been mixed and further research incorporating multi-method indices of emotional reactivity is needed to understand these processes and potential implications for clinical practice. The aim of this study was to assess several emotion-processing elements: 1) emotional reactivity (physiologically and behaviourally); 2) attention to social information; and 3) emotional comprehension.

#### **Method/Technique**

The participants were 130 Australian children aged two to eight years, with varying traits (i.e. CP+CU, CP-CU, healthy control). The experimental protocol comprised two stages. Firstly, children watched a six-minute emotion-inducing (fear and sadness) film. Emotional reactivity was measured physiologically (heart rate, galvanic skin response and pupil dilation) and behaviourally (affective responses and emotion-regulation strategies, coded by independent observers), and attention was measured with a screen-based eye-tracker. Secondly, researchers interviewed participants to assess empathic responsiveness, comprehension of the film content and motivation for prosocial action.

#### **Results/Outcome**

Planned analysis includes group (CP+CU vs. CP-CU vs. healthy control) difference testing for emotional reactivity (heart rate, GSR, pupil dilation, affective responses and emotion-regulation strategies), empathic responsiveness and emotional comprehension. Differences between clinical groups will be discussed in relation to aetiological conceptualisations and implications for the treatment of CP subgroups.

#### **Discussion/Conclusion**

Developing understanding of aetiological conceptualisations of CPs is important to ensure the development of enhanced treatment protocols. Differentiating emotion-processing deficits in children with CP+CU and CP-CU may help to achieve this goal. Differences between clinical groups on emotional reactivity (physiological and behavioural), social attention, empathic responding and emotional comprehension will be discussed, with the aim of improving understanding of emotion-processing and emotional learning deficits.

### **The Effect of the Cognitive Behavioral Based Cyberbullying Prevention Program**

**Kevser Yüksel, Ministry of Education, Turkey**

**Ali Çekiç\*, Gaziantep University, Turkey**

#### **Introduction**

The purpose of this research is analyzing the effect of cognitive behavioral cyber bullying prevention program in view of 7th grade students who are sufferers or bullies on cyber bullying and peer victimization experiences.

#### **Method/Technique**

This research processed by explanatory combined techniques contains two parts. In the first part the effect of cyber bullying prevention program has been analyzed. In the second part, the reviews of the participants about this program have been analyzed. In 2016-2017 the first part of the program has been carried out with students of two similar secondary schools in Şahinbey (Subprovince), Gaziantep (Province). There are 78 participants in experimental group and 80 participants in control group. Pre-test data has been collected by applying participants the Revised Cyber Bullying Inventory (RCBI) (Topçu and Erdur-Baker, 2010), Cognition Scale about Bullying for Children (Gökkaya and Sütçü, 2014) and the questionnaire containing personal information form. Later on, cognitive behavioral based cyber bullying prevention program containing 10 sessions has been applied only on experimental group. Nothing has been applied on control group. After applying this program, final test data has been collected by applying same scales on experimental and control groups.

#### **Results/Outcome**

After the normality hypothesis was ensured in quantitative data analysis, by using independent samples T- Test it has been checked if there is a significant difference between experimental and control groups' pretests and if there is a significant difference between experimental and control groups' final tests. Although there was not a significant difference between experimental and control groups before the process, to increase the statistical strength, Covariance analysis (ANCOVA) has been applied on final tests by stabilizing pre-tests of experimental and control groups. According to the results of analysis, it has been reached that participants of cognitive behavioral based cyber bullying program have had a positive effect on doing cyber bullying, suffering from cyber bullying and bullying cognitions.

In second part, to analyze the reviews of cognitive behavioral based cyber bullying program participants, focus group discussion has been carried out with 6 boys and 6 girls from experimental group. 5 evaluation criterias containing subject, time, content, method and activities have been identified and questions based on these have been asked. Participants have been asked 14 open-ended questions the qualitative data gathered from focus group discussion has been analyzed by using descriptive analysis method. According to analysis results, participants of focus group discussion has stated that cognitive behavioral based cyber bullying prevention program has reached its aim (n=12) and the content has been sufficient (n=12).

## **Open Papers 24: (Meta)Cognitive Mechanisms and Treatment**

**Chair: Nexhmedin Morina, University of Münster, Germany**

### **Meta-Analysis of Metacognitive Therapy**

**Nexhmedin Morina, University of Münster, Germany**

**Nicoline Normann, University of Copenhagen, Denmark**

#### **Introduction**

Metacognitive therapy (MCT) continues to gain increased ground as a treatment for psychological disorders. In our meta-analysis published in 2014 (Normann, Emmarik, & Morina, 2014) we reported that preliminary research on the efficacy of MCT indicates that this intervention is effective in treating depression and anxiety disorders. Yet, our meta-analysis was based on a small number of randomized controlled trials. Since then, several clinical trials on the efficacy of MCT have been published. The aim of the current manuscript was to provide a meta-analytic update of the efficacy of MCT.

#### **Method/Technique**

We conducted a new systematic search in 2018 in PsycINFO, PubMed, and the Cochrane Library and further searched for completed trials in trial registry sites. Our inclusion criteria were 1) evaluation of MCT as developed by A. Wells and 2) having a sample size of at least 10 participants in the MCT condition at pretreatment. No a priori restrictions were made on study designs or age. The aims and methods of this meta-analysis have been registered with the Prospero database:

[http://www.crd.york.ac.uk/PROSPERO/display\\_record.php?ID=CRD42018084507](http://www.crd.york.ac.uk/PROSPERO/display_record.php?ID=CRD42018084507). Studies that examined specific MCT techniques in isolation (e.g., attention training) as opposed to the treatment as a whole were excluded. Trials that combined MCT techniques with other types of therapy were also excluded.

#### **Results/Outcome**

Twenty-five trials (15 randomized controlled trials) met the inclusion criteria. The trials examined a variety of psychological conditions and only one trial was conducted with children and adolescents. Results with adult patients revealed large uncontrolled effect size estimates from pre- to post-treatment and follow-up regarding symptoms of the targeted primary complaints, anxiety, depression, and dysfunctional metacognitions. The comparison with waitlist control conditions also resulted in a large effect (Hedges'  $g = 2.06$ ). The comparison with cognitive and behavioral interventions at post-treatment and at follow-up showed effect sizes of 0.69 and 0.37 at post-treatment ( $k = 8$ ) and follow-up ( $k = 7$ ), respectively.

#### **Discussion/Conclusion**

The results indicate that MCT is an effective treatment for anxiety and depression, and potentially for other disorders as well. Current results suggest that MCT may be superior to other psychotherapies, however, more trials with larger number of participants are needed to draw firm conclusions. These results will be summarized and discussed and future directions will be discussed.

### **Targeting Negative Metacognitions as Maintaining Factors in Excessive Worry: Results from a Randomized Controlled Trial Testing a Novel Online Intervention**

**Tove Wahlund, Karolinska Institutet, Sweden**

**Hugo Hesser, Linköping University, Sweden**

**Brjánn Ljótsson & Erik Hedman, Karolinska Institutet, Sweden**

**Sean Perrin, Lund University, Sweden**

**Eva Serlachius & Erik Andersson, Karolinska Institutet, Sweden**

#### **Introduction**

Worry is a common transdiagnostic phenomenon. There is considerable evidence that negative beliefs about the worry (a form of metacognition) are associated with the severity and persistence of excessive bouts of worry. There is also an emerging body of evidence suggesting that metacognitive therapy (MCT) which targets such beliefs is a highly effective treatment for excessive worry when delivered in a face-to-face format. However, further randomized controlled trials from independent research groups are needed. Furthermore, MCT is not widely available in routine mental health services. The aim of the study was twofold. First, we evaluate the efficacy of an internet-delivered version of metacognitive therapy (I-MCT) for excessive worry, relative to a wait-list control group (WL). Second, we investigate whether changes in negative beliefs during treatment mediate changes in the primary outcome (worry severity). We hypothesized that a clear change in negative beliefs about worry in the I-MCT group relative to WL would mediate subsequent reductions in worry.

#### **Method/Technique**

We conducted a randomized controlled trial including 108 excessive worriers allocated to I-MCT or WL with both mediator (negative beliefs about worry), competing mediator (depressive symptoms), and outcome (worry) assessed weekly for 10 weeks. Participants were followed up six and twelve months after treatment.

#### **Results/Outcome**

Results showed, large (controlled) pre-to-post effect sizes for negative beliefs about worry [ $d=1.85$ ] and worry severity [ $d=1.73$ ] with small (non-significant) changes on other non-specific outcome measures (e.g., cognitive avoidance,  $d=0.25$ ). Growth curve modeling revealed that reductions in negative meta-cognitions during treatment mediated reductions in worry, even when controlling for the competing mediator (depressive symptoms).

#### **Discussion/Conclusion**

The potential benefits of I-MCT will be discussed along with the challenges of offering this treatment in an online (only) format, as well as the implications for the meta-cognitive model as applied to excessive worry and for future treatment trials.

## **Long-Term Prediction of Suicidal Ideation with Implicit and Explicit Measures**

**Jakob Scheunemann, Lena Jelink, Brooke Schneider, Judith Peth, Anne Runde, Jürgen Gallinat & Simone Kühn, University Medical Center Hamburg-Eppendorf, Germany**

### **Introduction**

Explicit measures for the prediction of suicidality are subject to several limitations, especially regarding patients' openness in disclosing suicidal thoughts or plans. In contrast, implicit measures have the advantage that responses are harder to influence. Previous studies have successfully used implicit measures, such as the implicit association test (IAT), to capture implicit cognitions about life and death/suicide as well as self-harm with the goal of distinguishing people with previous suicidal behavior from those without. In contrast, prospective studies are sparse, and the longest follow-up period was 6 months. It therefore remains unclear whether implicit measures predict suicidality in the long run and account for variance in predicting suicidality beyond that gained from established explicit measures.

### **Method/Technique**

Seventy-nine inpatients with affective disorders were assessed with a large battery of explicit and implicit measures. Explicit measures included the Beck Scale for Suicide Ideation (BSS), the Beck Hopelessness Scale, and the Suicide Behaviors Questionnaire-Revised, as well as measures of depression (Beck Depression Inventory II [BDI-II], Hamilton Depression Rating Scale [HDRS]). Three implicit association tests were administered (life/death-me/others; self-harm-me/other; self-harm-good/bad), as well as a subliminal priming task, which provides two indices (respectively, how each positive and negative adjectives are closer related to the word "dying" than the word "growing"). Patients were contacted again 18 months later to assess current suicidal ideation (BSS) and depressive symptoms (BDI-II, HDRS).

### **Results/Outcome**

Fifty-two patients were assessed at 18-month follow-up (retention rate 66%). In stepwise multiple linear regression models, the following variables significantly predicted suicidal ideation at follow-up (BSS total score): Gender ( $\beta = -.22$ ,  $p < .05$ ) and age ( $\beta = -.18$ ,  $p < .05$ ), BSS at baseline ( $\beta = .76$ ,  $p < .001$ ) and BDI-II at baseline ( $\beta = -.20$ ,  $p < .10$ ). With regard to implicit measures, a stronger association with "death and me" than "life and me" at baseline (life/death-me/others IAT;  $\beta = .25$ ,  $p < .01$ ) and a closer association of positive adjectives with "dying" than "growing" at baseline (subliminal priming task;  $\beta = -.24$ ,  $p < .01$ ) also significantly predicted BSS at follow-up. Upon entry of the implicit measures in the regression model, the adjusted  $R^2$  increased by .111 points to .675 ( $F(6, 45) = 18.63$ ,  $p < .001$ ).

### **Discussion/Conclusion**

In conclusion, two of five implicit measure indices significantly added prognostic value in the prediction of suicidal ideation after 18 months beyond established explicit measures. These results underscore the potential of implicit measures in the long-term prediction of suicidal ideation. Yet, replications with other patient groups are needed.

## **Psychopathological and Well-Being Changes After a Mindfulness Program: A Network Theory Approach**

**Pablo Roca, Gustavo Diez, Nazareth Castellanos & Carmelo Vázquez, Complutense University of Madrid, Spain**

### **Introduction**

A growing body of meta-analysis and RCTs show that mindfulness-based interventions are a promising treatment for a variety of mental health problems and well-being. However, one of the main research challenges in mindfulness (MF) is to analyze the action mechanisms that underlie clinical changes by using rigorous methodologies (Van Dam et al., 2018, Davidson & Dahl, 2018). A relevant conceptual tool is Network Analysis (NA) (Borsboom, 2017), which allows to mathematically analyse the connections and dynamics between the elements or nodes of the network (symptoms, psychological constructs, etc.). Thus, the aim of the study was to analyze MF-based changes in network patterns between psychological distress, psychological functioning, well-being, mindfulness and compassion variables using NA.

### **Method/Technique**

Data from a sample of 182 participants in an eight-week standardized program of Mindfulness-Based Stress Reduction (MBSR, Kabat-Zinn, 1982) were analysed. The evaluation protocol was applied immediately before and after the program, and included measures of mindfulness (FFMQ, EQ, NAS and MAIA), compassion (SCS, CSP and IRI), psychological distress (DASS), psychological functioning (RRS, WBSI, ERQ and ACS) and well-being (SWLS, LOT-R and PHI).

### **Results/Outcome**

Results showed that the complex network reorganized after the MBSR program, increasing the density and connectivity between the nodes. Specifically, three topological network reorganization features are especially noteworthy: 1) Self-compassion elements were relatively disconnected from well-being measures before the intervention, but they became strongly connected after the MBSR; 2) "Cognitive reappraisal – emotional regulation" was related to rumination, thought suppression and non-reactivity at pre-MBSR, but after the MBSR was related to mindfulness and well-being measures; and 3) Well-being measures were disconnected from each other before the intervention, but they increased their mutual relations after the MBSR. Centrality analysis revealed that a general measure of mindfulness, general well-being and rumination-brooding were the most central in the networks both before and after the MBSR. Furthermore, anxiety, cognitive reappraisal and thought suppression also emerged as hubs after the MBSR. Finally, community analysis detected that whereas the pre-MBSR communities were composed by rather heterogeneous elements corresponding to different families of constructs, the communities of constructs that emerged after the MBSR seemed to be reorganized in a more psychologically meaningful mode.

### **Discussion/Conclusion**

As far as we know, this is the first empirical study using NA to explore the effects of a standardized mindfulness intervention on the reorganization of psychological constructs that are central to that practice. This study, conducted in a general population sample, provides some novel results on the complex multivariate interaction of the variables and mechanisms involved in standardized MF programs which are being extensively used in clinical practice to prevent and treat mental health problems. The use of NA is postulated as a methodological tool that enable to analyse, in an innovative way, the changes in the relations between key psychological variables after MF interventions.

## **Schema Therapy Versus Cognitive Behavioural Psychotherapy in an Ambulant Rehabilitation Setting**

**Alexandra Schosser, Medical University Vienna, Austria**

**Andreas Affenzeller, Christoph Teuffl, Anna Huelsmann, Gabriele Riedl, Nina Pintzinger & Birgit Senft, BBRZ-Med, Austria**

### **Introduction**

Psychiatric rehabilitation promotes recovery, full community integration and improved quality of life for people diagnosed with any mental health condition that seriously impairs their ability to lead meaningful lives. In Austria, the majority of patients treated in psychiatric rehabilitation clinics suffer from affective and/or anxiety disorders, with a high proportion of chronic courses of disease (Sprung et al. 2018).

Schema therapy (ST) is an integrative treatment for chronic axis-I and axis II disorders (Young et al. 2003), with an established effectiveness for personality disorders (Bamelis et al. 2012), and, in addition, emerging evidence of effectiveness in chronic depression (e.g. Renner et al. 2016). The current (and still ongoing) pilot study investigates group and individual ST versus cognitive behavioural psychotherapy (CBT) in a 6-weeks ambulant rehabilitation setting in Vienna, Austria. Catamnesis assessments will be available 6 and 12 months after end of rehabilitation.

#### **Method/Technique**

Treatment is performed as standardized 6-weeks multi-professional rehabilitation program (composed of group and individual psychotherapy, occupational therapy, physiotherapy, social work and weekly psychiatrists consultations), based on either CBT or, since October 2017, based on ST. Questionnaire-based surveys (e.g. BDI, BSI, WHODAS 2.0, HAQ) are performed at time of admission, at time of discharge, 6 and 12 months after discharge. In the ST groups, patients also fill in the Young Schema Questionnaire (YSQ-S3 dt) and the Schema Mode Inventory (SMI v1), the latter repeated at the end of treatment. The current pilot study applies either group ST or CBT (11 sessions) to patients treated in the context of a 6-weeks rehabilitation program. In both groups patients receive additional individual ST or CBT (6 sessions), and the rest of the rehabilitation program described above.

#### **Results/Outcome**

A total of 358 patients (66.7% females, on average 44.9 years), treated from October 2017 to October 2018, were included in the current pilot study. Of those, 91 were randomly allocated to ST and 267 to CBT groups of a maximum of 12 patients each. The majority of patients suffered from affective (81.3%) and/or anxiety disorder (13.7%), with a high proportion of chronic axis-I symptomatology (75.7%). In both groups we found a significant reduction in depression scores (BDI,  $p < 0.001$ ), however with larger effect size in the ST group (Cohen's  $d = 0.68$ ) than in the CBT group ( $d = 0.52$ ). We further found significant changes in SMI scores ( $p = 0.03$ ), especially a significant increase of happy child mode ( $p = 0.011$ ,  $d = 0.28$ ) and a significant reduction in demanding parent mode ( $p = 0.039$ ,  $d = 0.13$ ).

#### **Discussion/Conclusion**

We thus found that both ST and CBT were highly effective with regard to reduction of depression symptoms, with higher effect size in the ST than in the CBT group. Moreover, even in this short time ST setting, we found significant changes in modes as measured with the SMI, especially increased happy child and decreased demanding parent modes. In conclusion, both CBT and ST were shown to be highly effective in patients suffering from chronic depression and/or chronic anxiety disorders, treated in an ambulant psychiatric rehabilitation setting. Nevertheless, the effect sizes were higher in patients treated with ST than with CBT.

## **Open Papers 25: Neural and Biological Mechanisms**

**Chair: Elisabeth Leehr, University of Münster, Germany**

### **Depressed and Anxious – Data from a Transdiagnostic Neurobiological Perspective**

**Elisabeth Leehr, Nils Opel, Lisa Sindermann & Joscha Böhnlein, University of Münster, Germany**

**Thilo Kircher, University of Marburg, Germany**

**Bernhard Baune, The University of Melbourne, Australia**

**Udo Dannlowski, University of Münster, Germany**

#### **Introduction**

Depressive and anxiety disorders represent highly prevalent mental disorders and are responsible for more than 20% of the total cost of disorders of the brain in Europe. Although efficient therapeutic interventions are available, response rates indicate a clinically significant improvement only in about two-thirds of the patients, and not all patients benefit equally – as recent studies demonstrate relatively high rates of treatment dropout and relapse. Thus, one-third of patients may be left as “non-responders” towards a first-line standard treatment – with severe consequences for patients and increasing costs for societies. So far, the existence of comorbidities in either depression or anxiety disorders has been neglected in research. The profound investigation of disorder-specific versus general neurobiological characteristics may give new impulses regarding the development of innovative therapeutic interventions.

#### **Method/Technique**

Including healthy individuals (HC), individuals with depression (MDD) and individuals with depression and anxiety disorders (MDD+Anxiety) from different studies, we conducted two transdiagnostic analyses (A and B) focusing on brain structure (voxel-based morphometry in analysis A and using Freesurfer in analysis B) and polygenetic risk for anxiety disorders. Regarding the brain structure we analysed grey matter volume, cortical thickness and surface. We computed the polygenetic risk for anxiety disorders according the results of a recent meta-analysis (Ottawa et al., Molecular Psychiatry, 2016) and investigated the association between the polygenetic risk for anxiety, trait anxiety and brain structure.

#### **Results/Outcome**

A: Investigation of the brain structure in the three samples resulted in significant volume differences in subcortical just as cortical areas between HC and MDD, as well as between HC and MDD+Anxiety. Interestingly, we also detected volume differences in subcortical and cortical areas between the MDD and the MDD+Anxiety sample. B: Regarding the polygenetic risk for anxiety disorders we found an association with trait anxiety. Furthermore, in HC we found an association between higher polygenetic risk for anxiety disorders and enlarged hippocampus volume, while in MDD a higher polygenetic risk for anxiety disorders was related with larger surface of the rostral anterior cingulate cortex.

#### **Discussion/Conclusion**

Both analyses showed the existence of disorder-specific versus general deviances in MDD and MDD+Anxiety regarding neurobiological characteristics. Still, the lack of a comparison group with individuals with exclusive anxiety disorders is limiting the results. Nevertheless, further research should address replication of these results and researchers are challenged to think of how these neurobiological characteristics could be addressed in disorder-specific versus general (psychotherapeutic) interventions.

## **Within and Between Brain Networks: How Does Cognitive Behavioral Therapy affect Major Depressive Disorder?**

**Huachen Ding, Nanjing Brain Hospital, Nanjing Medical University, China**

**Tianchen Liu, Nanjing Normal University, China**

**Changjun Teng, Nanjing Medical University, China**

**Yuan Zhong, Nanjing Normal University, China**

**Ning Zhang & Chun Wang, Nanjing Medical University, China**

### **Introduction**

Despite widespread use of cognitive behavioral therapy (CBT) for depression, but the mechanisms affecting brain networks remain unclear. Research presents two aspects to clarify the mechanisms of CBT with respect to brain networks. Some studies focus on particular nodes within networks or a specific network, and others focus on global topological network features. Many study describes a previous network differences in depression, including those in intrinsic connectivity networks (ICNs), notably the Default Mode Network (DMN), Salience Network (SN), and Central Executive Network (CEN), as well as interaction with them. But large researches can not estimate the extent of contributions to symptoms based on the vitality of these networks. These studies described features of brain network differences in (12 weeks after treatment, and they did not measure treatment-associated changes from untreated to 6 weeks after CBT treatment. We sought to investigate the therapeutic mechanisms of CBT for depression in the context of the neural network regulation model. Specifically, we sought to determine causal changes in three core resting state functional networks (SN, CEN, DMN) closely related to cognitive function.

### **Method/Technique**

A sample of 60 subjects was included in a study of brain network: 33 patients received longitudinal fMRI resting state scans in three stages (before treatment, after 6 weeks of CBT and 28 weeks of CBT, as well as 27 healthy controls (HCs). Depression severity was assessed on the Hamilton Depression Rating Scale for Depression (HDRS-24). We used Independent Component Analysis (ICA) to extract Granger Causal Analyses to determine causality of three core networks over time.

### **Results/Outcome**

When the Granger causal relationship from CEN to SN was not significant, we found abnormal connectivity between SN to DMN. As CBT progresses, the Granger causal relation from CEN to SN is recovered, restoring connectivity between SN and DMN. Furthermore, while the DMN ultimately improves with CBT, several connectivities to the posterior cingulate cortex (PCC) remain altered relative to HCs.

### **Discussion/Conclusion**

We discuss the similarities and differences between our findings and the results of previous studies. Our innovative point is that CBT affects three resting state networks in sequential order (CEN, followed by SN, and finally DMN) with evidence of a causal mechanism of network recruitment. However, CBT does not restore connectivities to PCC.

## **Enhanced Noradrenergic Activity by Yohimbine and Discriminative Fear Conditioning in Patients with Major Depression with and Without Adverse Childhood Experiences**

**Linn Kuehl, Christian Deuter, Christian Otte & Katja Wingenfeld, Charité Universitätsmedizin Berlin, Germany**

### **Introduction**

Major depressive disorder (MDD) has been associated to changes in the biological stress systems. Regarding the locus coeruleus-noradrenergic system, accumulated evidence suggests an upregulation of central alpha2-receptors, leading to decreased noradrenergic (NA) activity on a central level in MDD patients. The upregulated functioning of the alpha2-receptors seems to be particularly associated with severe stress experiences early in life, e.g. adverse childhood experiences (ACE) such as physical or sexual abuse. Interestingly, the alpha2-adrenergic system has been shown to affect cognitive processes such as learning and memory. Cognitive dysfunctions constitute an important symptom of MDD.

### **Method/Technique**

To investigate the relationship of alpha2-receptor dysregulation with deficits in learning processes in MDD patients, a discriminative fear conditioning paradigm was conducted after double-blind administration of the alpha2-receptor antagonist yohimbine versus placebo. To investigate the role of ACE systematically, we included four groups of healthy participants and MDD patients with and without ACE (MDD-/ACE-: N=44, MDD-/ACE+: N=25, MDD+/ACE-: N=24, MDD+/ACE+: N=24; all without antidepressant medication).

### **Results/Outcome**

Enhanced alpha-amylase and blood pressure indicated increased noradrenergic activity after yohimbine across groups. Overall, fear responses were higher after yohimbine as indicated by skin conductance responses and fear potentiated startle. While we found no significant MDD effect, ACE had significant impact on the ability to discriminate between both conditioned stimuli (CS+ predicting an aversive stimulus, CS- predicting no aversive stimulus), depending on drug condition. Whereas CS discrimination decreased in individuals without ACE after yohimbine, individuals with ACE showed the opposite pattern.

### **Discussion/Conclusion**

An impaired discrimination of threat and safety signals might contribute to enhanced vulnerability following ACE. Differences in the response to yohimbine might be explained by aberrant alpha2-receptor regulation in individuals with ACE. Thus, our findings support the hypothesis of upregulated central alpha2-receptors following ACE and underline the importance to investigate ACE systematically in clinical samples since they may constitute important subgroups with specific clinical features.

## **Neural Mechanisms of Psychological Treatments for Social Anxiety Disorder**

**Katherine Young, King's College London, United Kingdom**

**Michelle Craske, University of California, USA**

### **Introduction**

Psychological treatments for social anxiety disorder (SAD) are not universally effective, with many individuals continuing to experience symptoms after treatment. Neuroscience offers one approach to investigating mechanisms and moderators of treatment efficacy that may ultimately inform treatment development and optimization. Previous work has demonstrated that SAD is associated with amygdala hyperactivity and disrupted prefrontal activity during emotion regulation of social cues. This talk will describe a set of findings from a study investigating how psychological treatments (cognitive behavioral therapy and acceptance and commitment therapy) for SAD impact functioning of these circuitries and whether aspects of neural function predict treatment responses.



### **Method/Technique**

In a randomized controlled trial comparing the efficacy of cognitive behavioral therapy (CBT), acceptance and commitment therapy (ACT) and a wait-list control group, we investigated changes in neural functional connectivity from before to after treatment. Participants with SAD completed two emotion regulation tasks, an implicit and an explicit task, while undergoing functional MRI scanning, both before (n=62) and after (n=42) treatment. Psychophysiological interaction analyses were conducted to assess functional connectivity of the amygdala, assessing: i) changes in connectivity from before to after treatment and ii) predictors of treatment response.

### **Results/Outcome**

From before to after treatment, there was a significant change in amygdala to ventral prefrontal cortical functional connectivity during the implicit regulation task, independent of treatment type. Differences from before to after treatment during the explicit regulation task, however, were specific to treatment type. CBT was associated with enhanced amygdala-medial prefrontal connectivity during explicit 'reappraisal', whereas ACT was associated with enhanced amygdala-visual/motor cortical connectivity during explicit 'acceptance'. Investigation of predictors of treatment response showed that right amygdala-right ventrolateral prefrontal cortex connectivity during implicit emotion regulation significantly predicted treatment response.

### **Discussion/Conclusion**

These findings highlight commonalities and distinctions in potential neural mechanisms of psychological treatment action for social anxiety disorder. Additionally, these findings suggest that psychological treatments enhance functional connectivity in emotion regulation neural circuitries. Finally, predictor analyses suggest that sufficient functioning of neural circuitry supporting emotion regulation capacities may be a 'gateway' to receiving benefit from psychological treatments.

## **Sweating your Way to Overcoming Fear: Brief Exercise-Induced Enhancement of Fear Inhibition**

**Dharani Keyan & Richard Bryant, University of New South Wales Sydney, Australia**

### **Introduction**

Rodent research indicates that acute physical exercise facilitates modulation of fear learning and inhibition. Expression of brain derived neurotrophic factor (BDNF) may moderate the memory enhancing effects of acute exercise. The current study assessed the role of acute exercise in modulating extinction retention in humans, and investigated the extent to which the BDNF polymorphism influenced extinction retention.

### **Method/Technique**

Seventy non-clinical participants engaged in a differential fear potentiated startle paradigm involving conditioning and extinction followed by random assignment to either intense exercise (n = 35) or no exercise (n = 35). Extinction retention was assessed 24hrs later. Saliva samples were collected to index BDNF genotype.

### **Results/Outcome**

Exercised participants displayed significantly lower fear 24 hrs later relative to non-exercised participants. Moderation analyses indicated that after controlling for gender, the BDNF Val66Met polymorphism moderated the relationship between exercise and fear recovery 24hrs later, such that exercise was associated with greater fear recovery in individuals with the Met allele.

### **Discussion/Conclusion**

These findings provide initial evidence that acute exercise can impact fear extinction and this effect is reduced in Met-allele carriers. This finding is in line with the role of BDNF in extinction learning, and has implications for augmenting exposure-based therapies for anxiety disorders.

## **Open Papers 26: Assessment and Treatment of Cognitive Processes in Anxiety**

**Chair: Andre Wannemüller, Ruhr-Universität Bochum, Germany**

### **Short-Term Efficacy of a Worry Postponement Intervention for Generalized Anxiety Disorder**

**Kathleen Tallon, Naomi Koerner, Martin Antony & Colleen Carney, Ryerson University, Canada**

### **Introduction**

Cognitive Behavioural Therapy (CBT) is an evidence-based treatment for Generalized Anxiety Disorder (GAD). However, even after CBT treatment, a significant proportion of people with GAD do not recover. This points to the need to further optimize CBT for GAD. Worry postponement (WP), in which a client is asked to postpone worry until a 30-minute "worry time," is a common component of CBT for GAD. Despite its common use, the efficacy of WP has never been tested in people with GAD. Further, there are two mechanisms proposed to mediate WP's effect: 1. Stimulus control, and 2. Change in the metacognitive belief that worry is uncontrollable. Neither of these mechanisms has been empirically tested. A better understanding of the efficacy and mechanisms of change of WP could help to optimize CBT for GAD. The goals of the present study were to examine, in a sample of people with GAD: 1) The efficacy of WP for reducing worry and GAD symptoms, and 2) The effects of WP on two proposed mechanisms.

### **Method/Technique**

Sixty-seven adults (ages 18 – 57 years) were randomized to one of three conditions: 2-week worry postponement intervention (WP), 2-week worry monitoring intervention (MON), or an assessment only control (AX-ONLY). Participants completed outcome measures at baseline (prerandomization), immediately following the 2-week intervention period, and at a 2-week follow-up. In the WP and MON conditions, participants completed daily worry monitoring using a phone-based application. Primary outcome measures included: the Penn State Worry Questionnaire – Past Week, the Generalized Anxiety Disorder Questionnaire for DSM-IV, and the Metacognitions Questionnaire – 30. Further, participants' daily worry duration, controllability, intensity, and frequency were obtained from their daily phone monitoring. Change in worry frequency was used as an index of stimulus control.

### **Results/Outcome**

All participants showed a significant decrease in past week worry over the course of the study ( $b = -2.21$ ,  $p < .001$ ), with no significant differences between the conditions. Participants in the WP and MON conditions demonstrated a significant decrease in worry intensity over the intervention period ( $b = -.14$ ,  $p < .05$ ), with no difference between conditions. There were no significant changes in GAD symptoms, worry duration, or worry controllability. Proposed mechanisms were investigated. Both the WP and MON conditions had a significant decrease in worry frequency over the intervention period ( $b = -1.04$ ,  $p < .001$ ), with no between group differences. There were no changes across conditions in the metacognitive belief that worry is uncontrollable.

## **Discussion/Conclusion**

This is the first known study to examine the effects of WP in people with GAD. Whereas worry did decrease on some indices over the course of the study, there were no significant differences between WP and two control conditions. Further this study found no evidence that WP has specific effects on two processes that are thought to be mechanisms of action: worry frequency and metacognitive beliefs. The findings of this study demonstrate the need to establish the efficacy of the treatment components used in CBT. Results will be discussed in the context of current theoretical models of GAD.

## **Impact of the Attention Training Technique on Attention Control and Worry in Excessive Worriers**

**Kathleen Stewart, Leah Sack, Martin Antony & Naomi Koerner, Ryerson University, Canada**

### **Introduction**

Generalized anxiety disorder (GAD) is a chronic disorder with a global prevalence of 7.3% (Baxter et al., 2013). One of the most effective treatments for GAD is cognitive behavioural therapy; however, only 39-57% reach remission (Fisher, 2006; Hanrahan et al., 2013). Concentration difficulties are found in 89% of individuals with GAD, suggesting it is a core feature of the disorder (Hallion et al., 2018). Individuals with GAD often become distracted by worry and become “locked in” to a worry spiral, finding it difficult to shift their attention away.

Wells designed the Attention Training Technique (ATT, 1990) to train attentional control so that individuals may interrupt perseverative cycles of worry. The ATT is a 12-minute audio recording of sounds (e.g., bells, clock) and a voice guiding individuals to focus, shift and divide their attention to the sounds. The ATT has shown promising efficacy for depression (Papageorgiou & Wells, 2000; Siegle et al., 2014), posttraumatic stress disorder symptoms (Callinan et al., 2015), and anxiety (Haukas et al., 2018; McEvoy et al., 2017). The ATT is promising for GAD because it encourages one to disengage from worry. Theoretically, it should improve concentration and allow the individual to learn that worry is not uncontrollable. The affordability and brevity of ATT make it especially compelling.

### **Method/Technique**

This study is a proof-of-concept therapy experiment assessing the effect of ATT on attention and worry in the short-term, compared to a control condition. The control condition consists of listening to a recording of the same length, with the same sounds, but with a voice instead repeating neutral sentences, to control for time, attention, and nonspecific factors. The total sample will include 80 participants from the community. To date, 60 participants have been enrolled. Data collection will wrap up by March of 2019. Presence of probable GAD is determined using the Mini International Neuropsychiatric Interview and Penn State Worry Questionnaire (PSWQ). It is predicted that relative to the control condition, ATT will (1) lead to an improvement in attention control, indexed by performance on the Attention Network Task and the Breathing Focus Task and (2) result in a significant decrease in self-reported worry, measured by the PSWQ-Past Week and a daily worry diary. At Visit 1, participants complete outcome measures and then monitor their worry daily for a week at home using an online diary. They return to the lab a week later (Visit 2) to recomplete outcome measures and are randomized to engage in the ATT or the control intervention. Participants listen to the recording for their assigned condition once per day for 7 consecutive days, while continuing to monitor their worry. At Visit 3, participants recomplete outcome measures. Multilevel modelling will be used to test the hypotheses. Although the ATT is recommended for individuals with GAD, more empirical evidence is needed to understand its effects and underlying mechanisms. This randomized controlled trial is the first known study to examine the effects of weekly practice of the ATT on worry and attention control in GAD.

## **Assessing Repetitive Negative Thinking in Real Time to Determine Risk for Affective Disorders**

**Tabea Rosenkranz & Keisuke Takano, Ludwig-Maximilians-University Munich, Germany**

**Ed Watkins, University of Exeter, United Kingdom**

**Thomas Ehring, Ludwig-Maximilians-University Munich, Germany**

### **Introduction**

Repetitive negative thinking (RNT) is a transdiagnostic process shown to play a major role in the development and maintenance of affective disorders, such as depression and generalized anxiety disorder (Ehring & Watkins, 2008). It is, therefore, crucial to design reliable and valid measures to assess RNT in a meaningful way to predict the onset of such mental disorders. So far, two retrospective self-report questionnaires of RNT exist (Ehring et al., 2011; McEvoy, Mahoney, & Moulds, 2010). However, such self-reports may be biased by memory and current mood. Recently, Ecological Momentary Assessment (EMA) has been employed as a promising approach to counter these issues (Conner & Barrett, 2012). By asking participants at random times during the day to record different processes as they occur in daily life, ecologically valid data can be attained. The aim of the presented research was 1) to develop and refine a brief EMA-protocol to reliably measure RNT, and 2) to test the predictive validity of this measure regarding depression and generalized anxiety disorder.

### **Method/Technique**

The instrument encompassed items used in previous EMA-studies investigating rumination or worry. Besides items assessing content, duration, and subjective burden of RNT, three items of the Perseverative Thinking Questionnaire (PTQ; Ehring et al., 2011) were included to assess process characteristics (repetitiveness, controllability, intrusiveness). Baseline and follow-up questionnaires assessed worry, rumination, stress, depression, and generalized anxiety symptoms.

### **Results/Outcome**

A first study was conducted to identify psychometrically strong items and determine the minimum frequency and assessment period of the EMA-protocol necessary to gain reliable data. In total, 150 participants received 8 random daily prompts over 14 days to report their RNT. Based on these data, a frequency of 5 daily assessments and a period of 10 days was found to yield the best trade-off between participant burden and information gain.

Two possible scales with excellent model fit ( $RMSEA < .049$ ) were chosen to test in a second study. The first scale encompassed all three PTQ items and one item assessing burden of RNT, while the second scale included two items commonly used to assess rumination (momentary thinking about problems / feelings), one item assessing burden of RNT, and one item assessing controllability of RNT. Adopting these changes, a second, prospective study was conducted comprising 200 students. Participants received 5 random daily prompts over 10 days at the start of their semester. Follow-up questionnaires measuring depression and generalized anxiety were administered at the end of the semester (four months later).

First results show that the proposed EMA-protocol is a reliable and valid instrument to assess RNT.

## **Discussion/Conclusion**

The final scale and its predictive validity regarding depressive and anxious symptoms will be presented and discussed. Further studies are planned to establish meaningful cut-off scores of this instrument to identify at-risk populations for affective disorders.

## **Effectiveness of Internet-Delivered Cognitive Behavioral Therapy (iCBT) for Generalized Anxiety Disorder (GAD) in a Naturalistic Nationwide Study**

**Ville Ritola, Satu Pihlaja, Eero-Matti Koivisto, Jan-Henry Stenberg & Grigori Joffe, HUS Helsinki University Hospital, Finland**

### **Introduction**

Anxiety disorders are the most common group of mental health disorders and cause significant burden of disease (Craske & Stein, 2016). GAD is a chronic anxiety disorder. CBT is one of the evidence-based first-line treatments for GAD, but its accessibility and affordability are limited. ICBT has been developed to resolve these challenges. In randomized controlled trials (RCTs), therapist guided iCBTs demonstrate outcomes equal to those of face-to-face CBT (Carlbring et al., 2017). While the few existing studies show mostly positive results for iCBT for GAD in regular clinical care, suboptimal adherence has emerged in some (e.g. Newby et al, 2013). Programs and their design, thus, are still in need of further evaluation in real world settings.

This study aims to investigate the effectiveness of a low-threshold Finnish language iCBT for GAD delivered nationwide by the Helsinki University Hospital (HUS) iCBT clinic.

### **Method/Technique**

The study was an observational naturalistic ("real-world") clinical trial.

Any physician licensed in Finland can refer patients to the HUS iCBT for GAD. Prior to referral, they must verify GAD diagnosis and check for exclusion criteria - acute psychosis or mania, severe personality disorder, danger of suicidality and marked cognitive decline. Hence, no further intake interviews are required, and acceptance is based on the referral text. The therapist guided iCBT program consisted of 12 flexibly scheduled sessions and a follow-up session three months after treatment completion.

Participants (n = 494) were recruited from patients entering the iCBT for GAD between February 2016 and September 2017. The two additional inclusion criteria for the study were completion of the first session and the Generalized Anxiety Disorder 7-item scale (GAD-7) to be  $\geq 8$  at pretreatment. Primary outcome measure was GAD-7 and secondary measures were the Penn State Worry Questionnaire (PSWQ) and the Overall Anxiety Severity and Impairment Scale (OASIS).

### **Results/Outcome**

All 12 sessions were completed by 225 (45%) participants, the mean number of completed sessions was 8 (SD = 4.4). Whole sample treatment effect size was large ( $d = 0.99$ ) and rate of symptomatic relief was similar among completers and non-completers. Completers seemed to maintain gains at follow-up. Reliable symptomatic remission was achieved by 40.1%, while 4.0 % showed reliable deterioration.

### **Discussion/Conclusion**

In this low-threshold, flexible-schedule iCBT for GAD, adherence was comparable to that of previous studies on iCBT in regular clinical care. Both completers and drop-outs benefited from the iCBT, and response and recovery were in line with data from a meta-analysis of face-to-face CBT for GAD (Springer, Levy, & Tolin, 2018). Symptomatic deterioration was rare, as it was in a meta-analysis of iCBT RCTs by Karyotaki et al. (2018), confirming an overall protective effect of iCBT for GAD.

Conclusion: Nationwide delivered, low-threshold, flexible-schedule iCBT for GAD is effective in regular clinical care.

## **Internet-Delivered Cognitive Behaviour Therapy for Anxiety Disorders: A Randomized Controlled Trial**

**Reham Aly & Mohamed Ghanem, Ain Shams University, Egypt**

### **Introduction**

During the last 45 years, cognitive behavior therapy (CBT) has gone from being a promising new treatment to the most well-established psychological treatment for anxiety disorders. In several hundreds of randomized controlled trials (RCTs), CBT has been shown to be effective in treating these disorders and is a first-line treatment for these conditions. This is due to superior treatment effects in combination with high safety. In general, long-term follow-up studies indicate that improvements gained after CBT endure over several years. In combination with relatively low intervention costs, CBT is thus a highly promising treatment from a societal cost-effectiveness perspective. Objectives: Several forms of remote CBT have been developed, the general idea is that CBT delivered through the Internet or using telephone communication reflects the content of conventional CBT, but is administered as a form of therapist-guided treatment protocol using remote communication methods e.g. the Internet. Remote CBT consists of modules for therapy, each corresponding to a session in conventional CBT, which the patients practice as they progress through the treatment.

### **Method/Technique**

A group of patients suffering from anxiety disorders was randomized into two groups; one received CBT as usual & the intervention group received CBT using telephone &/or the Internet. Both groups were assessed pre- & post treatment using anxiety questionnaires for anxiety symptom severity & Beck Depression Inventory for symptoms of associated depression. The Quality of Life scale was also applied to all patients participating in the study.

### **Results/Outcome**

Both groups of patients were committed to the treatment program & no differences in drop-out rates were detected between the two groups. Pre- & post study measures indicated a statistical & clinically relevant changes in patients of two groups.

### **Discussion/Conclusion**

Delivering CBT for patients suffering from anxiety disorders in Egypt using remote communication methods (e.g. telephone &/or the Internet) appears to be effective in alleviating symptoms & improving the Quality of Life. Yet some adaptations to the standardized treatment protocol are mandated to render the protocol applicable through remote communication & enhancing cultural reception.

## **Open Papers 27: Understanding and Treating Anxiety in Children**

**Chair: Verena Pflug, Ruhr-Universität Bochum, Germany**

### **The Effectiveness of Psychological Therapies for Anxiety Disorders in Adolescents: A Systematic Review and Meta-Analysis**

**Holly Baker, Cathy Creswell & Polly Waite, The University of Reading, United Kingdom**

**Jessica Karalus, Central and North West London NHS Foundation Trust, United Kingdom**

#### **Introduction**

Anxiety disorders are the most common mental health disorder experienced by children and adolescents, with 10-20% of young people meeting diagnostic criteria for an anxiety disorder. Left untreated anxiety disorders persist into adulthood and are associated with elevated risk of developing depression, substance abuse and suicidal behaviour, and impact negatively on social functioning and education. Adolescence is identified particularly as a time of increased risk for developing an anxiety disorder; rates of anxiety disorders are higher, more severe and more commonly associated with depressive disorders and school non-attendance in adolescents than in children.

Cognitive behaviour therapy (CBT) is the first line treatment for anxiety disorders among young people and has been shown to be broadly effective, with up to 59% of children and young people free of their primary anxiety disorder post treatment. It has been delivered in a number of formats, including individually, in a group, computerised and via bibliotherapy. However the evidence base relating to the effectiveness of such treatments specifically in adolescents remains unclear.

#### **Method/Technique**

This systematic review and meta-analysis examines the findings from randomised controlled trials of psychological treatments (both CBT and non-CBT) for DSM-5 anxiety and related disorders in adolescents (11-18 year olds). This is the first review to focus specifically on adolescents rather than broad age ranges covering children and adolescents. It examines whether psychological therapies (i) are effective in reducing primary anxiety disorder symptoms, (ii) lead to remission from primary anxiety disorders in adolescents, when compared with controls.

#### **Results/Outcome**

Seventeen trials were included in the systematic review (1238 adolescents) and data from 14 trials were used in the meta-analysis (717 adolescents). Publication bias was assessed. Diagnostic and symptom severity outcome measures were analysed. Moderator analysis was carried out examining the impact of the following variables on the effectiveness of treatment: age, gender, ethnicity, primary anxiety disorder type, disorder specific vs generic treatment for anxiety, number of treatment sessions, number of treatment hours, community or clinic sample, type of psychological treatment (CBT vs non CBT), delivery mode of therapy (group, individual, cCBT), type of control or comparison group (passive vs active) and parental involvement in treatment.

#### **Discussion/Conclusion**

The results of the review and meta-analysis will be presented and the key findings will be discussed along with limitations, conclusions and directions for future research.

### **Predicting Outcome of Internet-Delivered Cognitive Behaviour Therapy for Paediatric Anxiety Disorders**

**Maral Jolstedt, Sarah Vigerland, David Mataix-Cols, Tove Wahlund, Brjánn Ljótsson & Eva Serlachius, Karolinska Institutet, Sweden**

#### **Introduction**

Internet-delivered cognitive behavior therapy (ICBT) has been shown to be both clinically- and cost effective for paediatric anxiety disorders. However, studies consistently demonstrate that only 40-60% are in remission after ICBT. Providing ICBT for children who risk not benefiting from it could be a waste of scarce public resources as well as putting an unnecessary burden on patients and their families. Understanding for whom ICBT is most effective is therefore of great importance both to individual families and from a societal perspective. The primary aim of this study was therefore to investigate predictors of outcome of ICBT in the treatment of paediatric anxiety disorders.

#### **Method/Technique**

Participants (N=117) were children, aged 8-12 years, with a principal anxiety disorder of either separation anxiety, social anxiety, generalized anxiety, specific phobia or panic disorder. All participants underwent a generic, parent-assisted 12-week ICBT program (BiP Anxiety) with limited asynchronous therapist support. Data was collected as part of a larger randomised controlled trial and were used to explore predictors of outcome three-months after completed ICBT. Hypothesized predictors of outcome include baseline characteristics (e.g., sex, age, principal diagnosis), clinical severity (e.g., symptom severity, functional impairment, comorbidity), clinicians' "gut feeling" about treatment effect at baseline assessment as well as treatment credibility, and completed modules at week three. Also, this study will investigate whether treatment activity, such as communication with the therapist, number of completed homework assignments and exposure exercises affect treatment outcome at post treatment and whether treatment outcome at post treatment predicts outcome three- and twelve months after completed ICBT treatment. Primary outcome measure was the clinician severity rating derived from the Anxiety Disorder Interview Schedule.

#### **Results/Outcome**

Preliminary results from the predictor regression analysis will be presented. The preliminary results include variables used in the analysis, their significance and interaction effects at three- and twelve months' follow-up.

#### **Discussion/Conclusion**

This trial is one of the largest clinical trials investigating predictors of outcome of ICBT for paediatric anxiety disorders. The results and their clinical implications in the contexts of implementing ICBT in regular care will be discussed.

Internet-delivered therapies has the potential to increase availability (e.g., decreasing waiting time and geographical barriers) to evidence-based treatments while being a cost-effective alternative. Understanding for whom ICBT is effective is of great clinical importance in order to offer treatment to those who benefit from it the most thus using societal resources in a more efficient way.

### **The Influence of State and Trait Empathy on Children's Fear Learning from Others**

**Chris Askew & Molly O'Connor, University of Surrey, United Kingdom**

#### **Introduction**

A wealth of recent research shows that children can learn to fear a novel stimulus if they see it together with someone responding fearfully to it (e.g., Askew & Field, 2007; Gerull & Rapee, 2002). Evidence with adults shows that the level of this vicarious (or observational) fear

learning is influenced by an individual's empathy levels (Olsson et al., 2016); however, it is not known whether this is also the case during childhood. Therefore, the current study investigated the effects of state and trait empathy on children's vicarious learning of fear-related beliefs and avoidance preferences for novel animals.

#### **Method/Technique**

The trait empathy levels of three groups of children (7 to 11 years) were measured, as well as their fear beliefs and avoidance preferences for two Australian marsupials (cuscus and quokka) that are typically unknown to UK children. Children were informed that they would be shown emotional faces and were randomly assigned to one of three state empathy manipulation groups: high, low and control. Those in the high empathy group were asked to pay particular attention to the emotion of the faces, and to imagine how the person felt and what would make them feel that way. Children in the low empathy manipulation group were instructed not to worry about how the person felt and not to let it affect how they felt. The control group did not receive any empathy-related instructions. Next, over 10 vicarious fear learning trials all children were shown pictures of scared faces together with one of the marsupials (i.e., a cuscus or quokka). These were interspersed with 10 control trials in which children saw the second animal (a quokka or cuscus) on its own on the computer screen. Finally, children's fear beliefs and avoidance preferences for the animals were measured a second time.

#### **Results/Outcome**

Observational fear learning increased children's fear beliefs and avoidance preferences in both the high empathy manipulation group and the control group. Within these groups, a higher level of trait empathy was associated with greater vicarious learning. In contrast, no observational fear learning was found for the group of children that had received the low empathy manipulation.

#### **Discussion/Conclusion**

Results of the research replicate previous findings showing that children can learn fear responses for a novel stimulus if they observe someone responding fearfully to it. In addition, the study showed that vicarious fear learning in childhood is related to both state and trait empathy. This supports previous research with adults showing vicarious fear learning is influenced by an individual's general trait empathy levels as well as their empathic appraisals during learning events (Olsson et al., 2016). The current study shows that children's vicarious learning can be prevented by reducing their empathic appraisals for emotional faces. Overall, findings help explain why only some and not all children who observe a negative learning event with an animal subsequently develop a fear or phobia for it. One possible interpretation is that children with more highly developed levels of trait empathy may be more at risk of developing specific fears.

### **Integrating Cognitive Behaviour Therapy Skills for Anxiety into Reading Lessons for Young Struggling Students**

**Amie Grills, Boston University, USA**

**Sharon Vaughn, Greg Roberts & Phil Capin, University of Texas at Austin, USA**

**Melodee Walker, Boston University, USA**

#### **Introduction**

Increasing evidence has accrued demonstrating significant associations among socioemotional behaviors, like anxiety, and academic outcomes. Previous work with early elementary school-aged children who were struggling to learn to read highlighted these findings, with significant concurrent and longitudinal relations found among anxiety and reading achievement (Arnold et al., 2005; Grills et al., 2012, 2013, 2014; Ialongo et al., 1994). Further, children receiving a Tier II reading intervention who reported greater anxiety at the start of their school year were significantly more likely to be categorized as non-responders to intervention at the end of that school year (Grills et al., 2016). Simultaneously, as recognition around the high rates of mental health concerns among children have grown, schools have been increasingly called upon to provide support and interventions. Responding to this, our team of experts from the fields of reading education research and clinical child psychology developed a small group program integrating evidence-based CBT skills with reading instructional practices as a mechanism for improving use of CBT skills within the context of a challenging academic task, reading. Specifically, we have developed a two-year, manualized intervention program that integrates the Strong Students Toolbox (a CBT-based program of anxiety management skills) and a modified version of Strategies/Skills (a supplemental reading intervention). This paper will provide initial results and discussion from this NICHD-funded project.

#### **Method/Technique**

At the beginning of the 2017-18 school year, 525 third and fourth grade students (49% male) were screened for reading difficulties using a standardized reading assessment battery and teacher report. Of the students screened, 127 were determined to be struggling with reading and randomized to one of three intervention conditions: 1) reading + anxiety/stress management; 2) reading + math practice; or 3) classroom business as usual. Students receive intervention for approximately 30 minutes, 3-4 times per week, with a total of 75 intervention lessons received each year for two years. Students, as well as their parents and teachers, completed a comprehensive battery of academic and behavioral measures at the beginning and end of their first and second years in this study.

#### **Results/Outcome**

Effects will be estimated using latent variable models in MPlus 7.4. We will fit separate multi-group ( $n=3$  for the test of differences across the two experimental treatments and the comparison), multilevel growth models representing change in anxiety over the two-year treatment period. Students will be nested in teachers. Model-estimated intercepts (or means) indicating status at post-intervention will be estimated for each outcome and group differences will be evaluated using nested model comparisons. Pairwise comparisons of latent means at intervention completion will include changes in global, test, and reading anxiety for children in the combined (anxiety/reading) intervention compared to children in the reading-only intervention or control conditions.

#### **Discussion/Conclusion**

Findings will be discussed and presented in terms of future directions for multicomponent intervention for struggling readers. Applications of CBT as integrated within instructional lessons will be presented with considerations for how these approaches may be refined for clinical and practical application.

### **Is Social Anxiety Associated with Theory of Mind Ability in Clinically Anxious and Non-Anxious Children?**

**Samantha Pearcey, Bhismadev Chakrabarti & Cathy Creswell, University of Reading, United Kingdom**

#### **Introduction**

Social anxiety disorder (SAD) is one of the most common mental health disorders, with approximately 13% of the population meeting diagnostic criteria for SAD during their life. Individuals typically present for treatment for SAD in early adolescence (median 13 years) and the most extensively evaluated treatment offered to them is cognitive behaviour therapy (CBT). However, outcomes tend to be poorer for children with SAD than for those with other anxiety disorders when using generic CBT (i.e. not anxietydisorder specific). Diagnostic specific

psychological treatments, that typically involve training social communication skills, are more efficacious than generic CBT for childhood SAD. However, it is not clear whether this is a direct result of improvements to social communication skills. Indeed, the nature of social communication deficits in childhood SAD remain unclear. For example, children with conditions conceptualised by social communication difficulties (i.e. Autism spectrum conditions, ASC) are known to be at greater risk of developing SAD (40-50%) than children without these conditions (28%) and some studies have found that children with SAD have fewer social communication skills than those with other anxiety disorders or non-disordered children. However, others suggest that this is a reflection of their inhibited behaviour in social situations and overly negative perceptions of their own social skills, rather than reflecting social communication skills 'deficits'. There is clearly some evidence for a relationship between social anxiety and social communication difficulties, but this evidence is mixed. Furthermore, research methods are hindered by an overlap in observable symptoms of social anxiety and social communication difficulties. In order to overcome this, the current research aims to measure aspects that are thought to underlie ASC's (i.e. conditions conceptualised by social communication difficulties), such as theory of mind (ToM) and assess the relationship with social anxiety symptoms and disorder.

#### **Method/Technique**

ToM was assessed in a sample of 100 children aged 7-12 years, recruited from a local research clinic and the community. Children either had a primary diagnosis of social anxiety disorder (SAD; n = 30), a primary diagnosis of another anxiety disorder and no diagnosis of SAD (Other; n = 23), or no clinical difficulties with anxiety (Com; n = 50). As part of a larger battery of assessments, all participants completed the Leibowitz Social Anxiety Scale for children (LSAS-C) and two ToM measures (Reading the mind in the eyes (RMET) task; Triangles task).

#### **Results/Outcome**

The results will establish whether there is a relationship between symptoms of social anxiety and ToM ability across clinically anxious and non-anxious children. They will also establish whether this relationship is affected by children's clinical group membership (i.e. SAD, Other, Com), age or gender.

#### **Discussion/Conclusion**

These results will help establish whether or not socially anxious children have social communication difficulties in order to help to create more efficient and effective treatments for childhood social anxiety.

### **Open Papers 28: Positive Emotions and Interventions**

**Chair: Simon Blackwell, Ruhr-Universität Bochum, Germany**

#### **Making the Worst of a Good Job: Dampening Appraisals Blunt Positive Affect in Adolescents During Positive Mood Induction**

**Merve Yilmaz, University of Exeter, United Kingdom**

##### **Introduction**

Anhedonia, a loss of interest or pleasure, typically first emerges in early adolescence and becomes increasingly prognostically important by age. Greater anhedonia in youth predicts adult-onset major depression, predict a poor response to anti-depressant and psychological treatment, is a significant marker of suicidal thoughts and chronicity and differentiate suicide attempters from the ideators. Previous work has shown that dampening appraisals (e.g. thinking 'this is too good to last') reduce positive affect and enhance negative affect to positive stimuli in adults. It is unknown whether a similar pattern holds in adolescence.

##### **Method/Technique**

We manipulated dampening appraisals during a positive mood induction in the laboratory and during completion of every day pleasant activities using two independent samples. In study one, 89 adolescents completed an uninstructed positive recall task before being randomised to either control, dampening or amplifying instructions during a second positive recall task. In study two, 24 teenagers were randomised to follow dampening, amplifying, or control instructions via a bespoke smartphone application while listening to happy music of their choice over four consecutive days.

##### **Results/Outcome**

In study one, participants experienced a significantly smaller increase in happiness and a significantly less marked reduction in sadness when recalling a positive memory under dampening instructions, relative to both the amplifying and no instruction control conditions. In study two, they reported a significantly smaller increase in positive mood and decrease in negative mood during the dampening condition, relative to both the amplifying and no instruction control conditions while listening to their playlists.

##### **Discussion/Conclusion**

In summary both studies showed that dampening appraisals resulted in a less of an increase in positive mood during otherwise positive mood induction tasks and activities in laboratory and real-life settings. These results broadly replicate previous findings in adults, suggesting that dampening appraisals hinder positive feelings. Given that elevated dampening appraisals are associated with depressed mood in adolescents, dampening may partly account for why depressed adolescents struggle to experience positive emotions, and represent a promising target for clinical intervention.

#### **Cultivating Well-Being Beyond Symptomatology in Paranoia**

**Carmen Valiente, Universidad Complutense de Madrid, Spain**

**Regina Espinosa, Universidad Camilo José Cela, Spain**

**Alba Contreras, Almudena Trucharte, Juan Nieto, Belén González & Vanesa Peinado, Universidad Complutense de Madrid, Spain**

##### **Introduction**

The promotion of well-being is an essential element in the recovery process of any mental health problem and has been shown to predict remission in psychosis. Even in the context of severe mental illness where there has been a highly negative and pessimistic view of prognosis, there is an increased awareness in the need for a positive movement, involving focusing on well-being and positive psychosocial factors in its treatment.

##### **Method/Technique**

A pre-post design was used to test the acceptability, feasibility and potential benefit of a group intervention that aims to enhance well-being and self-esteem.

### **Results/Outcome**

Results showed that the protocol was feasible and highly acceptable for participants, showing high attendance and adherence rates as well as high satisfaction. On completion of group therapy, participants reported a significant improvement in different domains of subjective psychological well-being, with larger effects in self-acceptance and positive relationships with others. There was also significant improvement in self-esteem and significant decrease in paranoid ideation and anxiety.

### **Discussion/Conclusion**

The results of this pilot study indicate that positive psychology group therapy may be a powerful complementary strategy in mental health promotion among people with paranoid tendencies receiving individual psychotherapy.

## **A Randomized Controlled Trial of Self-Compassion Versus Cognitive Therapy with Behaviour Therapy for Depression and Post-Traumatic Stress Disorder (PTSD)**

**Zhila Javidi, Flinders University, Australia**

**Tracey Sloan, Flinders Psychological Therapy Services and Southern Mental Health Services, Australia**

### **Introduction**

Many people who present for treatment of anxiety and depression attend with longstanding symptoms on a backdrop of adversity, often inclusive of childhood trauma related experience. Typical transdiagnostic symptoms of harsh self-criticism, shame and guilt contribute to complexity (Gilbert, 2009). Emerging evidence suggests that targeting cultivation of compassionate qualities of mind, for self, others, or in receiving compassion from others, as a component of cognitive behavioural-based treatment may lead to improved efficacy, particularly for complex presentations such as these (Germer & Neff, 2013; Gilbert, 2009, 2010; Gilbert & Irons, 2005; Lee, 2009). While there is consistent findings in particular on self-compassion and its inverse relationships with anxiety and depression in college students and community samples, research in clinical populations is limited (Finlay-Jones, 2017). The objective of this study was to determine whether therapeutic options for depression and PTSD are enhanced by skills training and application in self-compassion versus cognitive restructuring to behavioural treatment across a standard episode of care.

### **Method/Technique**

The study compared behavioural therapy combined with either self-compassion or cognitive restructuring (experimental compared with standard treatment) in a single-blind 2 (treatment) x 2 (time) repeated measures randomized controlled trial for depression or PTSD at a publicly-funded outpatient unit. A battery of reliable and valid scales assessing severity of the presenting problem and level of self-compassion were administered at both commencement and end of a 12-week treatment episode. Basic sociodemographic variables were also recorded. Effective randomization was achieved for all variables except self-compassion, for which the standard group reported higher levels than the experimental group. Key analyses comprised 2 x 2 repeated measures ANOVA.

### **Results/Outcome**

Greater efficacy of the experimental protocol was indicated by significant time by group interactions in severity measures over time in the experimental group relative to the standard group. Results represented self-reported improvements in both study groups across all of general psychological symptoms, regardless of initial diagnosis. However, this improvement was significantly better among those whose treatment included training in self-compassion.

### **Discussion/Conclusion**

This study contributes to a relatively fledgling clinically derived research literature on the therapeutic efficacy of self-compassion, providing both researchers and clinicians with valuable insight into the circumstances in which self-compassion may be of potential benefit when incorporated into standard practice. The findings will be discussed and compared with results from other studies, and in terms of clinical implications. Such findings are important due to the need to apply techniques that are both therapeutically and cost effective, particularly for publicly-funded clinics such as the current context.

## **Efficacy of an Internet and App-Based Gratitude Intervention in Reducing Repetitive Negative Thinking and Mechanisms of Change in the Intervention's Effect on Anxiety and Depression: Results from a Randomized Controlled Trial**

**Hanna Heckendorf & Dirk Lehr, Leuphana University of Lüneburg, Germany**

**David Daniel Ebert, Friedrich-Alexander-University of Erlangen-Nuremberg, Germany**

**Henning Freund, Tabor Protestant University of Applied Sciences, Germany**

### **Introduction**

Repetitive negative thinking (RNT) has been identified as a transdiagnostic process that is involved in various forms of psychopathology and seems to be involved in the development and maintenance of mood and anxiety disorders. Interventions targeting the transdiagnostic process of RNT might have the potential to prevent the development and positively affect symptoms of depression and anxiety disorders. Learning to disengage from negative information and training to shift one's attentional focus and to notice and appreciate positive things in life is at the core of gratitude interventions. Consistent with various theories of RNT, training to switch the attentional focus to a positive perspective might help to reduce RNT. Gratitude interventions might however not only be effective in reducing a transdiagnostic risk factor, but might also foster intervention uptake. Due to their focus on the positive they might be perceived as less stigmatizing and might reach individuals that are not reached with traditional interventions. This randomized controlled trial compared a 5-week internet and app-based gratitude intervention (intervention group; IG) with adherence-focused guidance against a care as usual group (CAU) in reducing RNT.

### **Method/Technique**

A total of 260 individuals with elevated RNT were randomized to either the IG or the CAU group. The IG received access to the gratitude intervention. The online gratitude training entailed five one-week sessions, each averaging 45-60 minutes in duration. Participants were encouraged to daily use a gratitude app to take photos or write short notes recording positive moments. Throughout training, participants were in contact with an eCoach, from whom they received reminders, as well as support on demand. Data were collected at baseline (T1), within one week post intervention (T2), and at three (3-MFU) and six-months of follow-up (6-MFU; for IG only). The primary outcome was RNT. Secondary outcomes included other mental health outcomes such as depressive and generalized anxiety symptoms and resilience. ANCOVAs were used to compare the IG with the CAU group. Mediation analyses were conducted to investigate the role of RNT and resilience as underlying mechanisms in the gratitude intervention's effect on levels of depression and anxiety. Subgroup analyses including only individuals with clinically-significant levels of depression and anxiety were used to investigate the effectiveness of the gratitude training in clinical samples.

### **Results/Outcome**

Participants of the IG reported significantly less RNT at T2 ( $d = 0.79$ ) and 3-MFU ( $d = 0.89$ ) as compared to CAU. Improvements were sustained until 6-MFU. Significant, mostly-moderate effect sizes were also identified for other mental health outcomes at T2 and 3-MFU. Furthermore, consistent with a dual-pathway hypothesis, both RNT and resilience were found to mediate the gratitude intervention's effects on anxiety and depression. Subgroup analyses with clinical samples showed significant effects of moderate to large size.

### **Discussion/Conclusion**

The gratitude intervention investigated in this study was found to be effective in reducing RNT. Gratitude interventions affect mental health by two parallel pathways: increasing resources and reducing risk factors. Gratitude interventions might be an acceptable intervention to reduce a transdiagnostic risk factor for various forms of psychopathology.

## **Open Papers 29: Transdiagnostic Perspectives**

**Chair: Dirk Adolph, Ruhr-Universität Bochum, Germany**

### **Differentiating Healthy from Strained and Depressed from Anxious – a Symptom Based Transdiagnostic Research Domain Criteria (RDoC) Approach Towards the Internalizing Disorders**

**Dirk Adolph, Tobias Teismann & Jürgen Margraf, Ruhr University Bochum, Germany**

#### **Introduction**

Affective and Anxiety Disorders frequently co-occur and show substantial overlap in clinical symptomatology. However, the unique mechanisms underlying these symptoms are still an open question. Inspired by the NIMH's Research Domain Criteria Initiative (RDoC) we developed a brief standard protocol assessing basic mechanisms relevant for the development, maintenance and treatment of internalizing disorders. Thereby, mental disorders are considered to fall along a continuum from normal to disordered functioning rather than constituting qualitatively uniform entities (Cuthbert, 2014). We thus used dimensional constructs to clarify sources of homogeneity and heterogeneity within and across the internalizing disorders.

#### **Method/Technique**

To accomplish this, previously validated tasks assessing emotional reactivity, emotion regulation (film-viewing paradigm) fear conditioning, fear extinction and safety learning (classical conditioning paradigm), approach/avoidance tendencies (reaction time task) and relaxation were used. Based on the tripartite model of emotion, reactivity during the tasks were assessed on the subjective level (using self-report), the behavioral level (facial EMG of the M. corrugator supercilii and the M. zygomaticus major, reaction times), and the physiological level (cardiovascular and respiratory markers, electrodermal activity, high-frequency-HRV). Anxiety and Depression symptomatology were assessed with the Brief Symptom Inventory (BSI) and the Depression, Anxiety and Stress Scale (DASS). To date, a total of  $N=191$  patients ( $n=80$  with Affective Disorders,  $n=73$  with Anxiety Disorders,  $n=34$  clinical controls) from our outpatient center, and  $n=60$  healthy controls participated. Within the scope of the current study, we aimed at determining if on a symptom level (1) patients could be separated from healthy controls and (2) depression could be distinguished from anxiety. Data analyses concerning research question (1) were performed with the entire sample, for research question (2) with anxious and depressed patients only.

#### **Results/Outcome**

Results indicate that within the entire sample increased overall symptom severity (DASS sum-score) was predicted by decreased resting HF-HRV and less intense feelings of relaxation (relaxation task). Furthermore, concerning the second research question regression analyses revealed that when controlling for depression symptoms, perturbed safety learning, but not reactivity towards the sad-mood induction predicted anxiety symptom severity within the sample of depressed and anxiety patients. Correspondingly, reactivity towards a sad-mood induction (blunted affect, decreased HF-HRV), but not safety learning predicted depression symptom severity. Group-based analyses did not reveal any differences between patients diagnosed for Depression and Anxiety.

#### **Discussion/Conclusion**

The current findings are in line with data showing an association between HF-HV and general psychopathology (Beauchaine & Thayer, 2015), findings of perturbed safety learning in anxiety disorders (Duits et al., 2015) as well as perturbed reactivity towards a sad-mood induction in depression (e.g. Rottenberg, et al. 2002). The current data speak in favour of a dimensional mechanistic approach to differentiate depression and anxiety on a symptom level and underscores the usefulness of the current paradigms in accomplishing this. In sum, the dimensional mechanistic approach may help to overcome several shortcomings of the classical categorical classification of diseases.

### **New Developments in ICD-11 and DSM-5: Personality Functioning and Maladaptive Traits as Transdiagnostic Moderators of Psychopathology and Targets for Clinical Intervention**

**André Kerber, Freie Universität Berlin, Germany**

**Johannes Zimmermann, Universität Kassel, Germany**

**Tobias Krieger, Universität Bern, Switzerland**

**Christine Knaevelsrud, Freie Universität Berlin, Germany**

#### **Introduction**

Since the introduction of the dimensional assessment of personality functioning and maladaptive personality traits in the „alternative model for personality disorders“ in section III of the DSM-5, this approach to quantification of personality pathology underwent extensive scientific research. It has shown overall superiority compared to categorical personality disorder classification, which led to the replacement of personality disorder categories in the final version of the ICD-11 by dimensional assessments of personality functioning and maladaptive Traits.

Further, subclinical or clinical expressions of maladaptive personality traits seem not only to play a major role in the area of personality disorders, they seem also to be central in the development, course and treatment of general psychopathology, such as affective, anxiety, eating or somatization disorders. In addition, recent metaanalyses have shown that psychological interventions have substantial impact on classic big-five personality traits such as neuroticism and extraversion independently of their treatment goals.

Meanwhile, contemporary CBT comprises more and more transdiagnostic treatments such as schematherapy, ACT, CBASP or the unified protocol which all are targeting enduring maladaptive patterns of thought, behavior and emotion regulation. However, in most intervention studies, changes in personality traits are rarely measured.

In our research we want to answer following questions:



1. Which are the direct and indirect influences of personality functioning and maladaptive traits on course and development of psychopathology such as depression and anxiety?
2. How strong is the indirect effect of maladaptive traits on general psychopathology through recurring patterns of dysfunctional relationships and negative life events?
3. Is successful change of maladaptive traits and personality functioning through clinical intervention predictive of longterm-remission in general psychopathology?

#### **Method/Technique**

Longitudinal assessment of personality functioning and maladaptive traits, negative and positive life events, experience of and coping with stress, depression, anxiety and somatization in samples with and without intervention (N=650). In the intervention sample, intervention features and therapeutic alliance was measured additionally. We calculated direct and indirect effects in structure equation models and treatment effects by propensity scores.

#### **Results/Outcome**

Personality functioning and maladaptive traits measured at T1 had significant longitudinal direct and indirect effects on the development of depression measured at T2. The indirect effects through negative life events and increased stress experiences on depression and somatization scores were strong, overall variance explanation was 68% for depression, and 40% for somatization. Results in the intervention sample showed significant reduction of personality traits through intervention, the amount of trait change predicted significantly the reduction in depression symptoms, variance explanation was 71%.

#### **Discussion/Conclusion**

Personality functioning and maladaptive traits seem to play a major role in the development and treatment of affective disorders. New developments of dimensional assessment of personality pathology in the DSM-5 and ICD-11 should therefore be applied as standard in input diagnostics as well as outcome assessment and should be considered for treatment decisions.

### **A Brief Transdiagnostic Group (the Take Control Course) Compared to Individual Low-Intensity Cognitive Behavior Therapy for Depression and Anxiety: A Randomized Non-Inferiority Trial**

Lydia Morris, University of Salford, United Kingdom

Karina Lovell, University of Manchester and Greater Manchester Mental Health NHS Foundation Trust, United Kingdom

Phil McEvoy, Six Degrees Social Enterprise, United Kingdom

Dawn Edge & Lesley-Anne Carter, University of Manchester, United Kingdom

Tanya Wallwork, Six Degrees Social Enterprise, United Kingdom

Warren Mansell, University of Manchester, United Kingdom

#### **Introduction**

Transdiagnostic approaches have the potential to make a significant contribution to the practice of contemporary cognitive behaviour therapy (CBT). For example, by providing therapeutic understandings and techniques that can be used to address a variety of psychological problems. However, there is no consensus regarding the theoretical approach that best explains and addresses transdiagnostic cognitive and behavioural maintenance processes. This presentation examines the effectiveness of a brief transdiagnostic CBT group based on a particular transdiagnostic theory (Perceptual Control Theory).

The transdiagnostic group, called the Take Control Course (TCC), has been developed for clients with common mental health problems in primary care services. It falls within the CBT family, but has a different focus from 'traditional' or 'second wave' CBT. The reported study evaluates whether TCC is non-inferior to individual low-intensity CBT.

#### **Method/Technique**

Single-blind individually randomized parallel non-inferiority trial comparing TCC to individual low-intensity CBT. Primary outcomes (depression and anxiety scores) were measured at 6-month and 12-month follow-up.

#### **Results/Outcome**

156 clients were randomised. Intention-to-treat and per-protocol analyses of 6-month data indicated that TCC was non-inferior to individual low-intensity CBT on anxiety and depression outcomes and social/other functioning. Intention-to-treat and per-protocol analyses at 12-months found inconclusive evidence of non-inferiority. The average number of treatment sessions attended was low across groups.

#### **Discussion/Conclusion**

Discussion: The TCC was non-inferior across a range of clinical outcomes at 6-month follow-up. However, it was not possible to establish non-inferiority for all outcomes at 12-months. This does not imply that TCC was inferior as there was no evidence for superiority of either treatment. The low sample size at 12-months may have resulted in wider confidence interval levels, which makes it more difficult to establish non-inferiority.

Conclusion: This is the first randomised trial providing evidence for the non-inferiority of a brief transdiagnostic group compared to established individual therapy. The strengths of the trial included single-blind assessments, pre-specified protocol, conservative non-inferiority margin, accounting for clustering by group within analyses and combining a RCT design with a naturalistic service setting. Limitations included attrition at 12-months follow-up and recruitment from one service setting. There are a number of implications for practice including: the utility of a theoretically based transdiagnostic approach, the potential advantage of enabling flexible attendance, and ways in which the credibility of groups can be enhanced. For example, groups can be introduced in ways that reduce potential misconceptions.

### **A Locally Adapted Variant of Group Unified Protocol (UP) for Chinese Adults: A Randomized Controlled Trial**

Candice Powell & Patrick Leung, The Chinese University of Hong Kong, Hong Kong

#### **Introduction**

To address the clinical reality on the comorbidity of common mental disorders (i.e., depression and anxiety disorders), the theoretical preposition of common underlying psychopathological processes among these disorders, and the heavy disease burdens with their resource implications, transdiagnostic theory and treatment have been developed and investigated in the past decade. To date, there are a limited number of randomized controlled trials (RCTs) on transdiagnostic cognitive behavioural treatment with comorbid depression and anxiety, particularly in Chinese contexts. A randomized controlled trial to investigate the effectiveness of a locally adapted variant of group UP for Chinese adults was tested against the treatment-as-usual (TAU).

**Method/Technique**

A total number of 103 participants with common mental disorders, i.e., depression and various types of anxiety disorders, were recruited from the community and randomized into two groups (group UP, N = 54; TAU, N = 49). The participants were followed up for nine months post-treatment.

**Results/Outcome**

The locally adapted variant of group UP showed promising outcomes with significant reduction in depression, anxiety and stress, as well as increase in work and social functioning compared to TAU with moderate to large effect sizes. Treatment gains were maintained or enhanced in the 9-month follow-up.

**Discussion/Conclusion**

The locally adapted variant of group UP is found to be both more efficacious and cost-saving than TAU in treating Chinese adults with multiple mental disorders in one single treatment regime. Given such positive results, this local group UP may be ready for broader application to the local community.

**Effects of Specific Modules of the Unified Protocol in Transdiagnostic Processes of Patients with Emotional Disorders**

**Santiago Zarate-Guerrero, Leonidas Castro-Camacho & Sandra Jimena Baez, Universidad de los Andes, Colombia**

**Introduction**

Cognitive behavioral therapy (CBT) has shown to be an effective psychological treatment for anxiety and depression disorders, showing large and moderate effect sizes compared to other treatments. CBT have been recommended as the first line intervention to treat anxiety and mood disorders. However, despite their effectiveness, some patients do not respond to treatment. Several efforts in clinical psychology try to explain why some people respond to treatments and others do not. First, since diagnostic categories do not provide information about etiological nor maintaining variables, not all individuals receiving the same diagnosis necessarily constitute a homogeneous category and share the same maintenance variables, as there might be different, not yet identified, causal processes. Second, categorical systems for classifying mental disorders do not reflect the dimensional nature of disorders, leading to high levels of comorbidity. The development of transdiagnostic models in psychopathology identifying psychological processes common to different diagnostic categories represents an alternative to address the above difficulties. The most widely investigated is the Unified Protocol for transdiagnostic treatment of emotional disorders (UP). One possible step forward in the design of more individualized treatments, would be matching specific modules aimed at particular causal processes to individual needs. Therefore, the present presentation has the goal to present the results of a clinical intervention in patients with emotional disorders. Specifically, assess the effects of specific modules of the UP matched to specific transdiagnostic individual characteristics on measures of specific common processes and emotional disorder. Second, evaluate the differential respond of individuals with different patterns of emotional processing (top-down, bottom-up or mixed) to each treatment condition.

**Method/Technique**

For the fulfillment of the aims, a Single Case Experimental Design (SCED) using 12 patients with mixt anxiety and depression disorders who receive the UP was performed. The assignment of specific modules of the UP (cognitive reappraisal and emotional awareness) was randomized across types of emotional processing profiles (Top-Down, Bottom-Up, Mixt).

**Results/Outcome**

Results suggest that cognitive reappraisal and emotional awareness modules of the UP may be more specific if trigger specifics transdiagnostic processes depending on emotional processing profile of patients. Specifically, patients with a Top-Down profile gets more better than patients with Bottom-Up with cognitive reappraisal module. Also, Bottom-Up patients benefit more with exposure than with emotional awareness. Finally, specific modules of the UP could lead to changes in transdiagnostic processes such as intrusive cognitions, neuroticism, autonomic arousal and avoidance in patients with different emotional profile classification.

**Discussion/Conclusion**

This results could lead to a better understanding of mechanisms of change in transdiagnostic treatments as the UP. Also, may contribute to the development of a classification system based on emotional processing profiles facilitating clinical judgment in the assignment of modular treatments and triggering the lack of specificity of psychological treatments.

**Open Papers 30: Training and Supervision**

**Chair: Franziska Kühne, University of Potsdam, Germany**

**Guided Assignment of Patients to Trainee Therapists in a University Outpatient Clinic: a Validation of Predictors for More Complex Therapy Courses**

**Anne-Kathrin Bräscher, Kaline Mütze & Michael Witthöft, Johannes Gutenberg University Mainz, Germany**

**Introduction**

Supervised outpatient treatment is a major part of the vocational training when becoming a psychotherapist in Germany. Recent research shows that severity of symptoms of patients are comparable in the educational context of university outpatient clinics and practicing psychotherapists. However, patients in educational contexts show more comorbidities on average (Velten et al., 2018). In order to avoid overburdening trainees, our outpatient clinic developed a system that differentiates two levels of psychological distress of patients at the beginning of the treatment. Patients are assigned to trainees in a manner that trainees a) start with a patient with a lower level of psychological distress and a more optimistic treatment prognosis, and b) do not get assigned more than two patients in a row with high levels of psychological distress and a more difficult prognosis. The present study aims at evaluating this system and at testing whether the level of psychological distress is predictive of therapeutic success.

**Method/Technique**

Based on the level of initial global psychopathology (GSI-BSI), suicidal tendency, increased risk for personality disorder, and prior inpatient treatment, patients (N = 3142) from a university outpatient clinic were classified as highly or little psychologically distressed at the beginning of the treatment. Multiple linear and logistic regressions tested whether this classification is predictive of therapeutic success, operationalized as total reduction in psychopathology (GSI-BSI), response, remission, and premature discontinuation of treatment.

**Results/Outcome**

Patients who are highly compared to little distressed at the beginning of the treatment show a larger total reduction in global psychopathology (GSI-BSI), less frequently achieve response and remission, and more often prematurely discontinue treatment.

## **Discussion/Conclusion**

Predicting more complex therapy courses and less positive outcomes based on the proposed indicators of psychological distress turned out successful. As hypothesized, highly distressed patients had less favorable outcomes at the end of the treatment. In a next step, the perception of the trainees should be assessed in order to verify the benefit of the system from the subjective perspective of the trainees.

To conclude, the classification of patients to different levels of psychological distress before the beginning of the treatment seems to be valid. The system is easily applicable in the clinical routine and provides guidance concerning which attributes trainees should deal with especially carefully in order to avoid various threats of therapy failure.

## **A New Way to Quantitatively Evaluate Continuing Professional Development Tutorials with Augmentation from Qualitative Data**

**Joanne Adams, Michael P Ewbank & Ana Catarino, Ieso Digital Health, United Kingdom**

### **Introduction**

It is well known that CBT therapists struggle with “therapist drift” (Waller, 2009, p. 119) away from the CBT’s evidence base. Ieso offer online CBT to patients using the Ieso method©. 500 therapists deliver CBT (in real time) on a secure platform using synchronous written communication. This results in a unique database of thousands of therapy transcripts from which we have derived evidence of where therapists drift away from CBT, protocols and CTS-R items.

### **Method/Technique**

During 2018 we delivered online tutorials to therapists covering the fundamentals of CTS-R items and how to stay on track during online therapy by teaching our Ieso 8 stage model © which covers assessment/ formulation, use of questionnaires, differential diagnosis, selecting and adhering to a protocol, collaborative review, relapse prevention planning and reflective practise. Based on Lewin/Kolb learning cycle (cited in Bennett-Levy, Westbrook, Fennell, Cooper, Rouf, K., & Hackman, 2004), therapists completed preparatory work before each tutorial, participated in experiential exercises during the tutorial and then completed action plans and reflection exercises afterwards. For CTS-R tutorials this involved scoring themselves for agenda setting, for example, before and after the tutorial to allow evaluation regarding whether learning had been put into practice. However, completion rates were low and this data is subjective; Brosan, Reynolds and Moore (2007) found that therapists over rated their own competence compared to a blind marker who rated their session using CTS and worryingly, found this discrepancy was greater in less competent therapists.

The Ieso Lab have developed a therapy insights model (TIM ©) which is a deep learning model that categorises and counts the number of utterances and words a therapist says around a particular theme, for example, agenda setting (Ewbank, Cummins, Tablan, Bateup, Catarino & Martin, in review). Relating to the delivered tutorials, TIM © provides a quantitative measure of ‘elicit feedback’, ‘change mechanisms’, ‘set agenda’ and ‘set homework’.

### **Results/Outcome**

Early analysis indicates there was an increase in the average number of agenda setting words used in the 3 months following this tutorial versus the 3 months prior to the tutorial. Further analysis will review the other relevant tutorials. In order to additionally seek a qualitative evaluation we interviewed Ieso therapists to analyse how they are implementing their learning into their online practice.

### **Discussion/Conclusion**

TIM © has provided an objective evaluation for 2018’s tutorials and what we have learnt from the model has fed into 2019’s tutorial programme. The model has highlighted associations between aspects of online CBT and clinical outcomes. Based on quantitative data about what is especially important within a CBT session, we can then teach on the quality of these aspects to improve therapists’ recovery rates. Additionally, knowledge of which type of training techniques are effective in improving therapists’ competency is limited (Bennett-Levy, McManus, Westling & Fennell, 2009) and future iterations of this work could involve analysing which techniques have produced the greatest improvement in clinical practice.

## **Experimental Studies of Cognitive Behaviour Therapy Clinical Supervision**

**Sven Alfonsson, Maria Bäckman, Tobias Lundgren & Gerhard Andersson, Karolinska Institutet, Sweden**

### **Introduction**

Clinical supervision has generally been viewed as a necessary and essential part of therapist training based on the proposed causal chain between supervision, therapist practice and treatment outcomes. However, surprisingly little empirical research has been conducted regarding the effects of psychotherapy supervision and the evidence for a causal mechanism in the educational pyramid is very limited. This stands in contrast to the growing demands on evidence-based clinical practice which calls for empirically-informed psychotherapy. There is clearly a need for empirical studies on the effects of clinical supervision. The overarching research question in this project is whether structured clinical supervision affect the in-session competence of therapists and/or patient reported outcomes in Cognitive Behavior Therapy (CBT).

### **Method/Technique**

This project contains a series of randomized controlled studies in which participating therapists receive structured clinical supervision. Supervision sessions are structured according to international guidelines for CBT supervision which include components such as agenda setting, case review, feedback, modeling, theoretical discussions, direct instructions and problem solving. The supervision is focused on each supervisee’s therapeutic competencies rather than a specific patient case. The integrity of the supervision is assessed by recording and blindly coding each session. The main outcome variable, therapeutic competence, is assessed by coding the participating therapists’ therapy sessions with the Cognitive Therapy Scale – Revised (CTS-R) before, during and after the supervision period. Self-report instruments are used to measure supervision satisfaction, treatment outcomes and other important variables. Prior to the main study, a small-n pilot study was conducted and the present report is based on the findings from the pilot study.

### **Results/Outcome**

The results from the pilot study is currently being analyzed statistically and initial results show that participating therapists have significantly increased levels of therapeutic competence after a period of clinical supervision in CBT, according to their CTS-R scores. Therapists in the pilot study reported high acceptance and satisfaction with the structured supervision format and the focus on general therapeutic skills. The supervision was coded and assessed to be of high quality and to have high integrity regarding the supervision protocol used.

### **Discussion/Conclusion**

This project provides empirical support for the beneficiary effects of clinical supervision on therapeutic competencies, at least when supervision follows a structured protocol and focuses on general therapeutic skills. The therapists included in this project had rather high baseline levels of therapeutic competence and it is possible that more inexperienced therapists would benefit even more from supervision. On

the other hand, it is possible that supervision focusing on general skills is best suited for therapists at a moderate skill levels who have basic competence in standard CBT treatment manuals.

#### Conclusion

The results from the pilot study of this project shows that empirical studies on clinical supervision in CBT are feasible and that clinical supervision can result in significantly improved therapeutic competencies in therapists. Further research is needed to develop the structured form of supervision and to identify the crucial targets for clinical supervision.

### **The Mind My Mind Study: The Development of a Measurement of Treatment Fidelity**

**Louise Berg Puggaard, Child and Adolescent Mental Health Centre, Denmark**

**Simon-Peter Neumer, Centre for Child and Adolescent Mental Health, Norway**

**Mette Agner Pedersen & Amanda Schulz Rottbøll, Child and Adolescent Mental Health Centre, Denmark**

**Jon Fauskanger Bjaastad, Stavanger University Hospital & NORCE Norwegian Research Centre, Norway**

**Pia Jeppesen, Child and Adolescent Mental Health Centre, Mental Health Services, Denmark**

#### **Introduction**

The implementation of cognitive behavioural therapy (CBT) rarely includes any fidelity measurement of the delivery of evidence-based treatment, and few fidelity measures are available for CBT, particularly in youth. The aim of this ongoing study is to develop and evaluate a video-observation-based fidelity measurement for a transdiagnostic and modular CBT program for children aged 6-16 years with anxiety, depressive symptoms, and/or behavioural disturbances.

#### **Method/Technique**

The present study is an integrated part of the randomized controlled effectiveness trial (RCET) of the CBT program called Mind My Mind (MMM) versus treatment as usual, including 396 children. The MMM program was implemented in the local Educational Psychological Counselling services in four Danish municipalities and was conducted by 25 psychologists who were trained in CBT and the MMM manual. Altogether, 432 recordings of sessions, representing approximately 20% of the total number of MMM sessions in the trial, were randomly selected using an algorithm to cover an equal distribution across study sites, therapists, and inclusion periods. Based on the 12-item Competence and Adherence Scale for Cognitive Behavioural Therapy scale (CAS-CBT)1, we developed a 13-item scale for the transdiagnostic and modular Mind My Mind program (CAS-CBT-MMM). The CAS-CBT measures adherence and competence of the core elements of CBT in children and adolescents. In order to increase the reliability of the fidelity measurement, we extended the description and operationalized the scoring of the original items covering 1) structure (homework, structure/progress, parental involvement), 2) process and relational skills (positive reinforcement, collaboration, adaptation), and 3) interventions (e.g., exposure, cognitive restructuring). Instead of scoring session goals, we scored the adherence and competence of the delivery of one or two (or even three) specific interventions in each session. A total of 50 specific interventions in the Mind My Mind treatment manual were listed to facilitate the fidelity scoring. Finally, we included a new item aiming to measure the overall competence in the flexible adaptation of the treatment manual to meet the needs of the individual youth/family. A video-rating-team including two senior raters and four psychology students completed 40 hours of training in the fidelity scoring and three days of training in the MMM treatment manual.

#### **Results/Outcome**

The intraclass correlation coefficient (ICC) was used to measure the interrater reliability of the six raters' independent scores of 20 randomly selected video sessions. The results showed ICC > 0.9 on all items of both adherence and competence, except for the adherence score of an extra intervention in the session, which dropped to 0.86.

#### **Discussion/Conclusion**

These preliminary results are promising for the reliability of this CBT fidelity measurement, which was extended and adapted from the original CAS-CBT for use in transdiagnostic and modular CBT programs. The excellent interrater reliability may be attributed to the thorough operationalisations of the rating scale for all items and the organization of regular supervision, discussions and reliability checks, resulting in a stable team of skilful and motivated raters. The CAS-CBT-MMM fidelity measurement can easily be applied to the use in other flexible CBT programs for children.

### **Assessing the Authenticity of Patient Demonstrations: Development and Validation of a Rating Scale**

**Destina Sevde Ay, Florian Weck & Franziska Kühne, University of Potsdam, Germany**

#### **Introduction**

Mental health disorders affect a significant number of people worldwide and there is a series of treatments considered to be highly effective. To sustain and to optimise efficacy of psychotherapy in particular, "competent" therapists are needed. One way to assess a candidate's competence and performance is to make her or him show how a skill is demonstrated (see framework to measure therapist competence; Miller, 1990). For this purpose, the conduct of standardised role-plays has been demonstrated to be prevalent, especially in medicine. Likewise, the use of so-called simulated or standardised patients (SPs), noticeably, is disseminating into clinical psychology and psychotherapy training. In contrast to its widespread use in medicine, advocates of this method delineate the difficulties confronted when simulating a patient with a mental health disorder, e.g. depression. One drawback of the use of SPs may be the lack of realness in their portrayal, which may dampen training effects. To our knowledge, there exists no instrument to assess the authenticity of SPs specifically demonstrating a mental health disorder. Therefore, it was our aim to develop an instrument to measure the perceived authenticity of SPs, defined as the inability to distinguish an SP from an actual patient. We intended to develop a rating-scale that can be used to code an SP's authenticity by independent, objective raters.

#### **Method/Technique**

Part I. First, we generated initial items of the Authenticity of Patient Demonstrations (APD) scale based on the current literature and pre-existing role-play videos. The content of the APD was validated through an online survey with N=10 experts; the number of participants was chosen on the basis of saturation. They judged each item regarding its relevance and comprehension on a five-point Likert scale; free comment fields were provided. The experts' backgrounds varied from licensed psychotherapists to actors with an average of M = 7.93 (SD = 5.10) years of work experience. The APD was then revised taking into account the suggestions made by the experts. Part II. To further validate the instrument, we will perform an online study, and aim to recruit approx. 100 raters. They will use the APD to evaluate a videotaped portrayal of two patient demonstrations. Accordingly, we will use a within-subject design, in which the raters will be randomly allocated to the order of the two videos: case 1 ("authentic") and case 2 ("not authentic").

## Results/Outcome

Part I. Results of the online expert survey revealed that all items except for one were considered to be relevant and comprehensive above-average. Consequently, we eliminated one item from the APD, and split one other item into two separate items as several experts remarked independently. Part II. To assess the internal consistency of the APD, we will report Cronbach's alpha. Further, we will randomly generate rater-pairs out of the whole sample in order to examine interrater reliabilities. Since we will also examine the feasibility of the paradigm, we will consider order effects of the videos ratings (1-2 vs. 2-1).

## Discussion/Conclusion

For illustrative purposes, we will be embedding exemplary video sequences of the two cases within our presentation. Based on the results of the expert survey as well as the online study, we will discuss the psychometric properties of the APD and its implications for practical use. Following the results, recommendations for the use of SPs in psychotherapy training will be presented.

## Open Papers 31: Emotion Regulation and Psychopathology

**Chair: Alvaro Sanchez-Lopez, Complutense University of Madrid, Spain**

### Healthy and Disordered Dynamics in Emotion Regulation Strategies: A Systematic Review and Meta-Analysis of Studies Using Daily Diary and Experience Sampling Methods (ESM)

**Teresa Boemo, Ines Nieto, Carmelo Vazquez & Alvaro Sanchez-Lopez, Complutense University of Madrid, Spain**

#### Introduction

Dysfunctional emotion-regulation is considered a key transdiagnostic factor for the onset and maintenance of both depression (Joormann & Quinn, 2014) and anxiety disorders (Cisler et al., 2010). Consistently, previous meta-analytic research has shown that some emotion-regulation strategies may reflect risk factors for, or protective factors against, these forms of psychopathology (e.g., Aldao et al., 2010). However, previous work has studied emotion-regulation through questionnaires retrospectively assessing the general use of regulatory strategies over long past periods of weeks or months. Therefore, the hypothesis that difficulties to manage emotional responses to daily events lead to longer and more severe distress periods, in turn, evolving into diagnosable depression or anxiety (e.g., Mennin et al., 2007; Nolen-Hoeksema et al., 2008) remains untested.

The emergence of new evaluation methods, such as daily diaries and experience sampling, has allowed to increase our insights on the role of momentary regulatory-affective dynamics to account for psychopathology. Studies using these procedures are aimed to explore temporal causality of emotion-regulation strategies in affective responses to momentary stressors. Moreover, biases associated with questionnaire-based retrospective evaluations are significantly reduced, thereby increasing the ecological validity of the analyzed phenomena.

To date, no systematic quantitative reviews have integrated empirical evidence on the momentary dynamics of individual regulation strategies and emotional functioning in daily life. The results from these meta-analyses would allow to clarify the intra- and inter-individual dynamics of several emotion-regulation strategies (avoidance, acceptance, problem-solving, suppression, rumination, worry, emotional expression, reappraisal, distraction) in accounting for different forms of momentary emotional states (depressed, anxious, positive mood).

#### Method/Technique

For this purpose, a systematic search was performed on various databases (PsychInfo, PubMed) to gather all existing literature reporting quantitative data on emotional regulation dynamics accounting for momentary mood (ESM,  $n = 39$  studies) and daily affect fluctuations (daily diaries,  $n = 40$  studies).

#### Results/Outcome

Random-effects meta-analyses were performed (for ESM and daily diary studies separately), providing overall  $r$ -based effect sizes for:

- The association between the use of each emotion-regulation strategy and distinct affective states at each given time/day level.
- The predictive role each emotional regulation strategy ( $t$ ) on changes in mood/affect in subsequent measurements ( $t+1$ : ESM, in subsequent minutes/hours; daily diary, in next day).

The meta-analyses have already confirmed noticeable personal and technical differences among studies in a number of relevant characteristics (e.g., clinical conditions, age range, type of ESM method, type of diary instruction, number of assessments per day, or total number of assessments per study). Moderator analyses are being performed, considering all these features, together with risk of bias estimations.

#### Discussion/Conclusion

A full report of these results will be provided and discussed in terms of their implications for future prevention and intervention strategies for clinical conditions characterized by emotion-dysregulation.

### Everyday Emotional Dynamics in Major Depression

**Janna Nelson & Anne Klumpparendt, Westfälische Wilhelms-University Münster, Germany**

**Philipp Doebl, TU Dortmund, Germany**

**Thomas Ehring, LMU München, Germany**

#### Introduction

Consistent depressed mood and anhedonia are defined to be core features of major depression (American Psychiatric Association, 2013). This seems to suggest that emotional experiences in depressed individuals are characterized by relatively persistent low mood resistant to the influence of positive events or activities. However, recent studies have shown that abnormalities of emotional functioning in depressed individuals are more complex than captured by this description and become especially apparent when investigating emotional dynamics in everyday life (i.e., Rottenberg, 2017; Thompson et al., 2012). Beyond the average mood state, fluctuations of feelings over time appear to be crucial for psychological health. Indeed, within the last decades research has increasingly linked various patterns of short-term emotional changes to adaptive or maladaptive psychological functioning (Houben, Van den Noortgate, & Kuppens, 2015).

The present study aimed to investigate the everyday emotional dynamics of depressed individuals, especially the role of emotional inertia, emotional context insensitivity, and emotional variability and instability.

#### Method/Technique

Using ecological momentary assessment, 40 currently depressed individuals and 40 healthy controls reported on their current emotional state and current activities 10 times a day for four consecutive days.

### **Results/Outcome**

Results showed no differences in the dynamics of positive affect (PA) between depressed and healthy subjects. As to be expected however, depression was associated with low overall levels of PA in daily life. Depressed participants' negative affect (NA), on the other hand, was found to be more inert than NA in healthy controls, while at the same time being more variable and more reactive to positive events. While somewhat counterintuitive this latter finding is in accordance with previous studies and has been labelled "mood brightening effect" (Bylsma, Taylor-Clift, & Rottenberg, 2011; Peeters, Nicolsen, Berkhof, Delespaul, & deVries, 2003; Thompson et al., 2012). There was also an association between emotional instability and depression, but this was rendered nonsignificant when analyses were controlled for emotional variability.

### **Discussion/Conclusion**

Altogether, emotional dynamics of NA appear to be more prominently disturbed in depression compared to PA. Results support earlier findings on NA emotional variability as well as inertia in depressed patients. In addition, there was some evidence for a mood brightening effect in depression.

These findings help clarify puzzling evidence from earlier research (i.e. evidence of both emotional inertia and emotional instability in depression) and yield relevant theoretical as well as practical implications in the understanding of everyday emotional experiences in major depression.

## **How Does One Prepare for Emotional Information? An Eye-Tracker Study**

**Natalia Poyato & Carmelo Vázquez, Complutense University of Madrid, Spain**

### **Introduction**

Difficulties in handling the anticipation of threatening or aversive stimuli is one of the hallmarks of emotional problems. Yet, the mechanisms of the attentional components of anticipatory responses is not well known yet. The emotional regulation model proposed by Gross (2014) is perhaps the most articulated explanatory framework in this area. In that model, attentional deployment is proposed as one of the first steps involved in the processing of emotional stimuli and responses to them. Yet, although this model has generated a vast amount of research on the use of adaptive (e.g., appraisal) and maladaptive regulatory strategies (e.g. suppression), little is known on the role of attentional mechanisms involved in the generation of emotional reactions.

The aim of this study was to analyze the attentional patterns towards positive or negative stimuli (i.e., emotional faces from the Karolinska Directed Emotional Faces, KDEF) in a group of participants who were anticipating the onset of positive or negative outcomes (i.e., positive or negative pictures from the IAPS) in a comparison with a control group who completed a similar task although without anticipation requirements.

### **Method/Technique**

89 volunteers were assigned to the Anticipation group (AG, N=48) or the Non-anticipation group (NAG, N=41). There were two anticipation blocks (one positive, one negative). Participants were informed in advance that a negative or a positive picture (from the IAPS) would appear at the end of the trial. Each trial started with the presentation of a pair of KDEF faces (happy vs. sad) and participants were asked to freely watch them for 3,500 msec. Immediately after, the anticipated IAPS picture was presented and participants were asked to assess its emotional intensity in a 0-10 scale. In the control group participants were just asked to freely watch the faces (the IAPS picture was replaced by a grey screen). Participants' gaze patterns were measured by an eye-tracking apparatus. Mood was evaluated before and after each task by means of a mood Visual Analogue Scale.

### **Results/Outcome**

A 2 (Face: happy, sad) x 2 (Block: positive, negative) x 2 (Group: non-anticipate, anticipate) ANOVA on the total time spent at looking the faces revealed a significant interaction Face x Block x Group  $F(1,87) = 4.584, p = .035$ . Bonferroni tests showed that anticipating negative IAPS pictures decreased attention towards happy faces and increased attention towards sad faces in the anticipate group. Also a significant difference between anticipate and non-anticipate in the positive block in the sadness face appeared.

A 2 (Block) x 2 (Group) x 2 (Time: pre, post block) ANOVA on participant's mood revealed a significant interaction Block x Group x Time in the happy and sad VAS subscales. Bonferroni tests showed that participants in anticipate group increase the happiness and sadness in positive and negative anticipate respectively. The NAG had a significantly lower level of happiness in both blocks as compared to the AG.

### **Discussion/Conclusion**

The results show that participants present different attentional patterns depending on the anticipated information. Thus, knowing in advance the type of information that will be presented seems to alter automatic attentional patterns. The implications of these results for the clinical field (e.g., training in attention bias modification) will be discussed.

## **Is Impaired Inhibition Responsible for High Level of Daily Rumination and Negative Mood?**

**Monika Kornacka, SWPS University of Social Sciences and Humanities, Poland**

**Celine Douilliez, Catholic University of Louvain, Belgium**

**Piotr Napieralski, Lodz Technical University, Poland**

**Izabela Krejtz, SWPS University of Social Sciences and Humanities, Poland**

### **Introduction**

Rumination, i.e., repetitive negative thinking perceived as difficult to control (Ehring and Watkins, 2008), was identified as a relapse factor in mood disorders. It is also considered as a depression scar, the level of rumination is higher in remitted depressive patients comparing to control population (Joormann, Dkane, & Gotlib, 2006; Nolen-Hoeksema, Morrow and Fredrickson, 1993). On the one hand, the literature suggests that the link between rumination, lower mood and depressive symptoms is apparent not only in self-report measures or laboratory settings, but it is also observed in patients' everyday life (Connolly and Alloy, 2017; Koster et al., 2015; Moberly and Watkins, 2008; 2010). On the other hand, recent studies suggest that inhibition impairment might be an important factor maintaining rumination and consequently increasing negative mood (Yang, Cao, Shields, Teng, & Liu, 2017), but this hypothesis was never previously explored in ecological settings. The aim of the present study was to test in participants' daily life how inhibition impairment affects rumination, mood and the relation between them.

### **Method/Technique**

40 participants (20 remitted depressive patients and 20 healthy controls) participated in a study using ecological momentary assessment (EMA) methodology via a mobile phone application. Their mood and rumination level were assessed 5 times a day through short self-reported questions (Koster et al., 2015) and their inhibition efficiency level (Emotional Stroop Task) was assessed once a day. The EMA

evaluation was applied for 7 consecutive days. Prior to the application use, participants underwent an on-line assessment of depressive symptomatology and trait rumination.

#### **Results/Outcome**

The data was analysed using multilevel modelling with momentary rumination and mood assessment at level 1 (observations), daily inhibition assessment at level 2 (days) and trait measures at level 3 (individuals). The lagged relationship analysis suggests that momentary level of rumination was a significant predictor of prospective level of momentary negative mood. Moreover, it seems that daily inhibition impairment strengthened the relation between momentary rumination and affect. These effects were observed in both remitted depressive patients and control group.

#### **Discussion/Conclusion**

This study is, to our knowledge, the first to measure the link between rumination, affect and inhibition in ecological settings. The results detangle the causal link between rumination and mood suggesting that rumination level is a predictor of prospective negative mood, but not inversely. The results supported also the hypothesis that inhibition impairment is involved in the link between rumination and negative mood. The present study supported, in the ecological settings, the role of inhibition impairment in the maintain of daily rumination and negative mood. These findings open a potential pathway for developing inhibition training to support clinical interventions addressing maladaptive rumination in a perspective of preventing mood disorders relapses.

### **Rumination as a Dysfunctional Coping Style in Women with Premenstrual Dysphoric Disorder in Daily Life**

**Theresa Beddig, Iris Reinhard & Christine Kuehner, Central Institute of Mental Health Mannheim, Germany**

#### **Introduction**

Premenstrual Dysphoric Disorder (PMDD) is characterized by emotional, physical and behavioral changes during the premenstrual phase (late luteal) of the menstrual cycle associated with clinically significant distress and marked impairment of psychosocial functioning. While being outlined as a new diagnostic category in the DSM-5 the mechanisms underlying PMDD are still insufficiently known. Due to high comorbidity with affective and anxiety disorders transdiagnostic coping styles such as rumination might play an important role. Aggravating effects of rumination on depressed moods and endocrine stress responses have been examined for depressed individuals, whereas studies regarding momentary rumination in women with PMDD are still lacking. Therefore, the purpose of this study was to examine menstrual cycle-related variations of momentary rumination, reciprocal relationships between rumination and negative mood states and their associations with endocrine stress activity of women with PMDD in everyday life.

#### **Method/Technique**

The present study applied a longitudinal design using Ambulatory Assessment (AA) with electronic diaries. The menstrual cycle was divided into four phases (menstrual, follicular, ovulatory and late luteal phase) and each phase was covered by two consecutive days of ambulatory assessment. Mood and rumination were measured eight times, saliva cortisol 11 times a day. Participants were 61 women with PMDD and 61 age- and education-matched healthy controls. A diagnosis of PMDD was based on a structured clinical interview

#### **Results/Outcome**

Multilevel models revealed that compared to controls women with PMDD showed a significant increase in momentary rumination toward the end of the cycle. Further we found reciprocal relationships between momentary rumination and negative affect in women with PMDD in their premenstrual phase. Here, in contrast to controls, levels of rumination beyond normal extent at one occasion (t) led to a premenstrual increase in negative affect at the subsequent occasion (t+1) after controlling for initial levels of negative affect. Conversely, in women with PMDD a higher level of negative affect than usual at one time point (t) resulted in a stronger increase in momentary rumination to the subsequent time point (t+1) compared to controls regardless of cycle phase. Cortisol analysis revealed a different relationship between rumination and HPA activity in women with and without PMDD. In controls, higher levels of rumination were linked to stronger cortisol activity even after controlling for daily hassles, while for women with PMDD levels of momentary rumination and cortisol output were uncoupled.

#### **Discussion/Conclusion**

Findings indicate that for women with PMDD rumination as a dysfunctional mode of cognitive processing is able to exacerbate negative mood in the premenstrual phase, suggesting a reciprocal relationship between rumination and mood from moment to moment. Therapeutic interventions focusing on rumination as a coping style to depressed mood may therefore be efficacious for affected women.

This study is funded by the DFG (KU 1464/6-1, 2016-2019).

## PANEL DISCUSSIONS (not sorted alphabetically but by occurrence in Final Program)

### **What Works for Whom, and Under Which Relational Contexts? – Making Clinical Decisions at the Crossroads of Treatment and Relational Processes in the CBTs**

**Convenor and Chair:** Nikolaos Kazantzis, Monash University, Australia

**Discussant:** Mehmet Sungur, Istanbul Kent University, Turkey

**Speakers:** Christine Padesky, Center for Cognitive Therapy, USA; Keith Dobson, University of Calgary, Canada; Lata McGinn, Yeshiva University, USA; Marcus Huibers, Vrije Universiteit, The Netherlands; Stefan Hofmann, Boston University, USA

Advances in the science underpinning Cognitive and Behavior Therapies (CBTs) are bringing us much closer to a point of clarity regarding what works for whom, and under which relational contexts. The next generation of research is helping us to understand dynamic process-outcome relations over time, client characteristics as moderators of treatment effects, causal determinants of relationship qualities, and how targeted treatment processes make a difference to an individual client's outcome. This panel of experts will discuss these advances in science in a practitioner-friendly forum, and aligned with the theme of WCBCT 2019, consider how the practitioner is frequently "at the crossroads" in making decisions about processes in CBT. Panelists will discuss (a) relational and treatment processes in CBTs, (b) how both types of process are important for treatment delivery, and (c) share recommendations for training and supervision on the nested nature of relational and treatment processes (especially how treatment processes selected based on case formulation are adapted based on the qualities of the therapeutic relationship). The aims of the panel are to provide useful conceptual clarity, inspire innovative research directions, and offer practical guidance for those in clinical, supervision, and training roles. Audience feedback and questions will be central to shape the discussion even further.

#### **Implications for everyday clinical practice of CBT**

This panel debate will offer WCBCT 2019 attendees with:

- Clarity in the distinction between the two classes of process in CBT: in-session and treatment processes
- Practitioner-friendly discussion on how both classes of process are central to clinically meaningful change
- The panel will discuss issues for CBT practice, supervision and training

### **Bin ich VerhaltenstherapeutIn? – Verhaltenstherapeutische Identität im 21. Jahrhundert**

**Convenors and Chairs:** Jürgen Tripp, Deutscher Fachverband für Verhaltenstherapie (DVT), Deutschland & Oliver Kunz, Deutsche Gesellschaft für Verhaltenstherapie (DGVT), Deutschland

**Discussant:** Jürgen Tripp, Deutscher Fachverband für Verhaltenstherapie (DVT)

**Speakers:** Eva-Lotta Brakemeier, Philipps-Universität Marburg, Deutschland; Oliver Kunz, Deutsche Gesellschaft für Verhaltenstherapie (DGVT), Deutschland; Jürgen Margraf, Ruhr-Universität Bochum, Deutschland; Ulrich Schweiger, Universitätsklinikum Schleswig-Holstein, Deutschland; Jürgen Tripp, Deutscher Fachverband für Verhaltenstherapie (DVT); Ulrike Willutzki, Universität Witten-Herdecke, Deutschland

Hinter dem Begriff der „Dritten Welle der Verhaltenstherapie“ zeigt sich eine immer weiter zunehmende Vielfalt an therapeutischen Vorgehensweisen und Ansätzen, die aus der Verhaltenstherapie heraus entstanden sind bzw. der Verhaltenstherapie zugerechnet werden. Vor dem Hintergrund, dass auch Elemente aus anderen Verfahren oder Denktraditionen integriert werden, entstehen zu einzelnen Ansätzen immer wieder Diskussionen mit der Frage, ob es sich hierbei überhaupt noch um Verhaltenstherapie handele. Sogar der traditionelle Verfahrensbegriff wird vereinzelt schon in Frage gestellt, da sich Neuentwicklungen nicht trennscharf einem Verfahren zuordnen lassen und von anderen abgrenzen lassen.

Gibt es trotz dieser zunehmenden Vielfalt also noch etwas Verbindendes, eine gemeinsame Basis, über die wir uns gemeinsam als VerhaltenstherapeutInnen definieren? Welche Auswirkungen hat diese zunehmende Vielfalt auf die Aus- und Fortbildung? Sollte zunächst die „klassische“ kognitive Verhaltenstherapie vermittelt werden, sollten neue Ansätze bereits in die Ausbildung integriert werden oder kann es in Zukunft auch viele verschiedene Verhaltenstherapieausbildungen und somit auch viele verschiedene VerhaltenstherapeutInnen geben, die sich selbst dann vielleicht auch sogar eher als SchematherapeutIn, ACT-TherapeutIn, DBT-TherapeutIn, CBASP-TherapeutIn etc. verstehen denn als VerhaltenstherapeutIn?

Kann die Vielfalt der Techniken und Methoden überhaupt noch von einer Person überblickt und in einer therapeutischen Persönlichkeit integriert werden? Ist die Pluralität bereichernd, da sie mehr Wahl- und Entscheidungsfreiheit mit sich bringt und Fortschritte in der Entwicklung und Etablierung neuer Techniken und Herangehensweisen ermöglicht? Oder führt die Pluralität zu Unübersichtlichkeit und führen Offenheit und Integration zu Verwischung von Unterschieden und Beliebigkeit?

Wie sehen wir vor diesem Hintergrund also die Verhaltenstherapie als Verfahren und uns als Verhaltenstherapeuten?

Wir möchten den vier ReferentInnen, die für verschiedene Ansichten in dieser Frage und auch für verschiedene Ausrichtungen der Verhaltenstherapie stehen, Gelegenheit geben in kurzen Impulsreferaten darzustellen, ob und wie sie sich selbst als VerhaltenstherapeutIn verstehen und wie sie die Entwicklung des Feldes beurteilen. Anschließend sollen die verschiedenen Positionen unter Beteiligung des Publikums auf dem Podium diskutiert werden.

Die Diskussion wird von Oliver Kunz (DGVT) und Dr. Jürgen Tripp (DVT) gemeinsam moderiert.

#### **Bedeutung für die klinische Praxis der KVT**

Implikationen für die klinische Praxis wären, eine Reflexion und Klärung der eigenen Identität als VerhaltenstherapeutIn und des Umgangs mit Weiterentwicklungen und Vielfalt im Bezug auf die konkrete Auswahl von Interventionen in der Therapie sowie auf die Entscheidung für Fort- und Weiterbildungen.

### **Treating Scrupulosity in Different Religious Populations**

**Convenor and Chair:** Jonathan Huppert, The Hebrew University of Jerusalem, Israel

**Speakers:** Paul Salkovskis, Oxford University, United Kingdom; Khalid Aljaber, Ministry of National Guard Saudi Arabia, Saudi Arabia; Christine Purdon, University of Waterloo, Canada; Jonathan Huppert, The Hebrew University of Jerusalem, Israel

In the current panel discussion, experts in treating religious Christian, Muslim, and Jewish patients with OCD will discuss the challenges in treating scrupulosity in various religious groups. Each panel member will describe a few of the common manifestations of scrupulosity they have encountered, how they differentiate scrupulosity from normative devout practice, how they introduce the model to their patients, the challenges they face in adapting CBT to their religious OCD patients, and how they have attempted to address the challenges. Questions in



terms of dealing with conflicts between religion and CBT principles, when and how to involve clergy (and whether one should seek dispensations from common practices), how far exposures should go, and how to deal with fear of sin will be discussed. Similarities and differences in dealing with cases from different religions will be considered, and whether religion-specific models of treating OCD are necessary will be debated.

#### **Implications for everyday clinical practice of CBT**

Knowing how to adjust CBT for OCD for religious populations will help the practitioner consider these issues in order to improve adherence and outcomes for patients from different religions. Knowledge of both OCD and religion and the role of clergy are often important, particularly in the many patients with fair to poor insight. Discussion will surround how and when to include clergy, how far to push exposures or behavioral experiments, and how to address theological issues of sin, guilt, and punishment.

### **Addressing Loneliness in the 21st Century: How to Intervene with Evidence-Based Solutions**

**Convenor and Chair: Michelle Lim, Swinburne University of Technology, Australia**

**Speakers: Roz Shafran, University College London, United Kingdom; Lisa Brophy, La Trobe University, Australia; Karra Harrington, Swinburne University of Technology, Australia; Robert Eres, Swinburne University of Technology, Australia**

Chronic loneliness is detrimental to our health, both to physical and mental health. Those who lack strong social connections show a 50% increased risk of an early death, and when we consider loneliness specifically, there is a 26% increase in early death after taking into consideration factors like age, gender, and ethnicity. While current research evidence indicates that loneliness significantly predicts more severe social anxiety, depression and paranoia in nonclinical samples, loneliness is rarely seen as an antecedent to problematic mental health. Furthermore, there are currently misconceptions of what loneliness is and how clinicians can effectively mitigate it.

Different types of solutions from cognitive-behavioural therapy, positive psychology, social and community approaches will be discussed. Additionally, solutions for older adults as well as young adults will be discussed. Given that much of loneliness research has also been in social neuroscience, we will discuss how the brain and biology may influence the impact of solutions that we undertake. More importantly, while loneliness predicts poor mental health and wellbeing, many clinicians still do not correctly identify or assess loneliness. Furthermore, many do not understand that simple solutions such as joining a group do not work for many.

The panel is made up of both researchers and clinicians who are experts in loneliness research. We will outline the current issues and misconceptions about resolving loneliness in the community, including those with mental ill health. The panel members will also discuss new approaches to resolving loneliness in the individual, community, and societal levels. We anticipate an active discussion with the audience with a focus on the various presentation of lonely clients in treatment.

#### **Implications for everyday clinical practice of CBT**

The panel discussion is expected to bring light to the practising clinician who sees lonely clients in clinical practice and mental health services. Assessment, effective solutions, and management of the lonely client will be discussed.

### **Improving Resilience to the Tough Stuff: From Theory to Practice and from the Lab to the Field**

**Convenor and Chair: Jennifer Wild, University of Oxford, United Kingdom**

**Speakers: Birgit Kleim, University of Zurich, Switzerland; Thomas Ehring, LMU Munich, Germany; Jennifer Wild, University of Oxford, United Kingdom; Vincent Walsh, University College London, United Kingdom**

Resilience reflects the ability to withstand, even thrive in response to stressors and trauma. General consensus in the field sees resilience as a dynamic process that can be developed, that will change across the lifespan, and that will buffer against the development of mental and physical health problems in difficult times.

Resilience may be what determines how people react to adversity, how it affects the outcomes of their lives.

We can't stamp out trauma or adversity. But can we change what happens afterwards? Can we reduce rates of mental ill health by training resilience?

This exciting panel debate includes experts from Zurich, Munich, London, and Oxford who, drawing on their cutting edge research in the field, take a position on what resilience is, how it's best measured and how to take findings from the lab to the field to reduce rates of mental ill health.

This panel discussion debates some tough questions facing the CBT of resilience: what is it? How can we build it? How will we know when we have? All four speakers have conducted extensive research in the field with different populations, ages and professions and reveal highly relevant insights for unifying the concept of resilience, advancing the CBT science of resilience and reducing rates of mental ill health.

#### **Implications for everyday clinical practice of CBT**

The panel will unify the concept of resilience and demonstrate that in large part, resilience is a behavioural process. Targeting maladaptive behaviours, such as rumination, persistent negative beliefs and avoidance through the everyday practice of CBT can improve resilience to trauma and stress.

### **CBTs in Latin America: Cultural Aspects in Training and Clinical Practice**

**Convenor, Chair, and Discussant: Carmem Beatriz Neufeld, University of São Paulo, Brazil**

**Speakers: Carmem Beatriz Neufeld, University of São Paulo, Brazil; Eduardo Keegan, University of Buenos Aires, Argentina; Leonidas Castro-Camacho, Universidad de los Andes, Colombia; Natalia Ferrero, Psicotrec Institute – an Affiliated Training Center of the Albert Ellis Institute, Peru**

The CBT in Brazil has achieved greater highlight in the last few years, but it has still come up against some limits. According to the Ministry of Education, there are currently more than 470 psychology courses in the country and, based on the size and population distribution, they are spread unevenly across the country. A research has mapped the CBT teaching in the country pointed to the growth of the frequency of this content in universities, especially in the south, southeast and northeast regions. Despite this, there is still a predominance of more traditional approaches to psychology such as psychoanalysis and humanism in undergraduate courses. Another limiting aspect is the technicist model of teaching in Brazil, which minimizes the critical construction in the therapist's training, favoring the application of protocols and techniques as a mere reproduction without considering the individualized demand. Another characteristic for the therapists' training in the country is the increase in the offer of lato sensu postgraduate courses for this purpose, however, as well as in undergraduate courses, there is also a lack of standardization in the teaching of clinical competences in CBT. A national study pointed to differences in 20 evaluated courses, including whether or not they offer clinical supervision and its frequency, the number of hours required for clinical practice and supervision, the

organization of content and activities for clinical development. In addition, in Brazil there is no evaluation culture, generating a strangeness on the part of supervisors and trainees in objectively evaluating the teaching process, the development of the therapist's competences, the therapeutic process, as well as the final results. There is no culture of using already consolidated educational strategies such as session recording and the use of scales. For example, no educational institution, whether undergraduate or postgraduate, has reported using the CTS-R or other competency measurement scale. There are few reports in the national literature about this type of educational activity, being isolated actions of researchers and specific professionals. In an initial study, a focus group was conducted with eight renowned CBT professors from all regions of Brazil. Among several aspects, some concerns have been raised and are directly related to our culture. For example, it has been pointed out that Socratic Questioning is particularly difficult for beginning therapists because of the cultural practice of counseling and the strong dissemination of unstructured therapies in the country. This cultural aspect also directly impacts the definition of therapeutic goals, considered a skill to be improved in the teaching of Brazilian therapists. Finally, the use of humor was viewed with fear, since its lability and ease of being misinterpreted is great in face of the cultural and interpersonal diversities in the country. There is a need for more in-depth research on this subject since the studies are still initial and there is a lack of information.

### **At the Crossroads of CBT and Existential Thinking – International Perspectives**

**Convenor:** Thomas Heidenreich, University of Applied Sciences Esslingen, Germany

**Chair:** Ross Menzies, University of Technology Sydney, Australia

**Discussant:** Thomas Heidenreich, Hochschule Esslingen, Germany

**Speakers:** Ross Menzies, University of Technology Sydney, Australia; Michael Worrell, National Health Service, United Kingdom; Alexander Noyon, University of Applied Sciences Mannheim, Germany

Existential psychotherapy has traditionally developed with few connections and sometimes harsh criticism from the CBT tradition (and vice versa). Yet, both CBT and Existential Approaches deal with patients who struggle with the givens of human existence such as death, responsibility and isolation. During recent years, existential thinking has been increasingly discussed in empirical clinical psychology and in CBT. For example, a large review (Menzies, Menzies & Iverach, *Clinical Psychology Reviews*, 2014) found evidence that the fear of death may play a major role in a variety of mental disorders and there is increasing experimental evidence for a causal rather than correlational role of death anxiety (R.E. Menzies & Nimrod, 2017 *Journal of Abnormal Psychology*). A study in a German CBT outpatient clinic has shown that existential issues are common in CBT (Grober, Heidenreich & Rief, 2016, *Psychotherapeut*) and it was argued that existential issues may play an important role in the training of CBT Therapists (Worrell, 2018).

This panel debate features experts from different European Countries and from Australia who have worked at the crossroads of CBT and existential thinking. In their opening statements, each speaker will focus on one particular aspect (basic research, training, supervision) of the crossroads of CBT and existential issues: Ross Menzies will present basic clinical research on psychopathology and death anxiety and discuss implications for CBT case conceptualisation as well as treatment. Michael Worrell will present challenges of integrating different aspects of existential-phenomenology into CBT training while Alexander Noyon will focus on the role of existential issues for CBT supervision and personal development of CBT therapists.

#### **Implications for everyday clinical practice of CBT**

Focusing on existential issues in the context of CBT has implications on a number of levels: the level of case conceptualisation (e.g. "does death anxiety play a role with this client?"), personal development ("what is the therapist's stance towards these questions?") and supervision ("does the supervisee adequately address the existential issues at hand?").

### **Training Others to Do CBT with Youth: 8 Essential Questions**

**Convenor and Chair:** Robert Friedberg, Center for the Study and Treatment of Anxious Youth at PAU, USA

**Speakers:** Urdour Njardvik, University of Iceland, Iceland; Siriat Ularntinon, Queen Sirikit National Institute of Child Health, Thailand; Debora Fava, Universidade do Vale dos Sinos, Brazil; Robert Friedberg, Center for the Study and Treatment of Anxious Youth at PAU, USA

Cognitive Behavioral Therapy (CBT) with youth is generally regarded as the gold standard psychosocial treatment. Practitioners and payers alike gravitate toward the approach. However, recent studies reveal that in treatment-as-usual settings (TAU) community settings, clinicians may inaccurately label themselves as CBT oriented practitioners when in fact they are insufficiently trained and/or improperly deliver the approach. Amateurish application of CBT may be considered a Type III error, attenuate effectiveness data, and erode public confidence. In this way, CBT may be a victim of its own success and popularity. Four expert clinicians and trainers schooled in different disciplines in CBT from diverse countries working in multiple settings with various trainees will tackle complex and thorny supervisory issues. The panel includes a clinical psychologist from Iceland who trains Masters degree students, a child psychiatrist from Thailand who supervises child psychiatric and pediatric residents, a Brazilian psychologist who works with school personnel and a clinical psychologist who has trained inpatient psychiatric staffs in the United States. Accordingly, each panelist offers a unique perspective. These four experienced supervisors and trainers will discuss the following questions: 1). What are the core competencies in CBT with youth?, 2). What are the best practices to increase trainees' didactic, experiential, and self-reflective learning?, 3). How do you teach supervisees to construct parsimonious yet robust case conceptualizations?, 4). How do you use behavioral rehearsal in your supervision sessions?, 5). What are your preferred modes of supervision (e.g. videotape, audiotape, co-therapy, live supervision)?, 6). How do you appreciate and address differences in experience and skill level between your trainees? 7). How do you deal with challenging trainees?, and 8). What objective measures do you use to evaluate supervisees' progress? This panel discussion aligns precisely with the Congress theme, Cognitive and Behavioural Therapies at the Crossroads. For CBT to evolve and prosper, supervision must ensure quality control and produce genuinely competent clinicians. Identifying and implementing the best training practices to achieve this goal is the exact aim of this panel discussion.

#### **Implications for everyday clinical practice of CBT**

In order to maintain a unified form of CBT that is faithfully practiced, new generations of CBT clinicians will need to be expertly trained. If neophyte clinicians are poorly prepared, everyday clinical practice is compromised. Patients will not receive a proper dose of treatment and vulnerable young patients will receive ineffective behavioral health care.

## **Open Science and Reproducibility in CBT Research: Where Do We Go from here?**

**Convenor and Chair:** Allison Ouimet, University of Ottawa, Canada

**Speakers:** Michelle Craske, University of California, USA; Peter McEvoy, Curtin University, Australia; Bethany Teachman, University of Virginia, USA

One of the most important developments in social and clinical research over the past decade has been the identification of a “replicability crisis”. Perhaps more important is the recent transition from a focus on problems with replication to a focus on improving transparency in science. It is with this goal in mind that researchers have proposed, developed, implemented, and begun to evaluate diverse strategies including pre-registering methods, hypotheses and data analysis plans; publishing pre-prints online prior to review; making peer reviews public and allowing post-publication review; making publications, data sets, and analysis codes freely available and accessible (i.e., Open Access); and re-working incentives so that they reward rigorous and open research design and methods rather than number of significant results. Although there is debate about the advantages and disadvantages of this Open Science approach, the number of researchers moving in this direction is growing rapidly. For example, pre-print deposits on Open Science Framework (OSF) Preprints increased by 165% in the past year. Despite these exciting advances, Open Science in cognitive-behavioural (CBT) research appears to have lagged behind some other domains. According to the Center for Open Science (cos.io), 154 journals currently offer the option to submit articles as Registered Reports (i.e., submit the methods, analyses, and hypotheses for review prior to collecting data, with acceptance meaning that publication of the final article is virtually guaranteed regardless of the significance of results). Of these, only 9 (.05%) appear relevant to clinical psychology/psychiatry generally or CBT models and treatments specifically. Bridging this gap would have important implications for improving CBT research, and increasing access to treatment advances for those who need it most—the public at large. The goal of the current panel is to discuss current practices in CBT research with regards to Open Science and reproducibility. Specifically, we hope to better understand which processes are/are not in place for increasing transparency in CBT science, explore the experiences that researchers have had to date, including obstacles encountered, potential avenues for facilitating Open Science, and other ways forward as they apply to CBT research conducted by both early career and established researchers. Moreover, we will focus on avenues to increasing dissemination of evidence-based treatment information to clients, policy-makers, and other stakeholders. Panelists will include CBT researchers currently engaging in some Open Science methods, (Dr. Peter McEvoy and Dr. Bethany Teachman) and Editors of CBT-related journals (Dr. Michelle Craske and Dr. Graham Davey), all of whom are international experts who have been involved extensively in CBT research, teaching, training, and/or practice. Although this discussion may include active debate, our overall goal is to identify and articulate next steps in increasing Open Science and reproducibility in CBT research.

### **Implications for everyday clinical practice of CBT**

CBT is often heralded as the most “evidence-based” of available treatments. Indeed, the research literature features an abundance of evidence for CBT models and associated treatments. However, developments in the area of social psychology - namely the “reproducibility crisis” have brought to the foreground questions about all research. The consequent move towards Open Science practices is clearly warranted, and stands to bring about significant improvements in the reliability and transparency of research findings. This move, however, has seen slower up-take in CBT research. This panel discussion aims to identify clear avenues forward, to ensure that scientists, the public, and other stakeholders can feel confident in the findings related to CBT models and treatments. In doing so, we hope to increase Open Science practices in CBT research, and increase dissemination of such research to not only researchers, but also front-line clinicians and clients. Moreover, these practices will enable us to focus on the treatment targets that emerge most robustly in research, and to reduce focus on those that may be extraneous.

## **What Is Insight? Can it Be Used as a Multidimensional Construct Across Disorders?**

**Convenor and Chair:** Asala Halaj, The Hebrew University of Jerusalem, Israel

**Speakers:** Richard Bentall, University of Sheffield, United Kingdom; Katharine Phillips, Weill Cornell Medical College, USA; David Veale, King’s College London, United Kingdom; Jonathan Huppert, The Hebrew University of Jerusalem, Israel

Insight has been shown to be an important concept within psychopathology which has clinical implications across psychiatric disorders. Although commonly studied among psychosis, body dysmorphic disorders (BDD), and obsessive compulsive disorder (OCD), insight has been less researched in relation to other disorders (e.g., anxiety disorders). Moreover, even among these commonly studied disorders, different terms are used to define insight, leading to a lack of consistent definitions of the concept. Even when a clear definition exists, a variety of commonly accepted terms are often used to describe and assess poor insight (e.g., overvalued ideation, fixity of beliefs, poor insight, delusion, poor clinical insight, and low cognitive insight), presenting a range of potentially different experiences. Insight also can be divided into dimensions (i.e., awareness of illness and symptoms, recognition of consequences and need for treatment, self-reflectiveness and self-certainty); these dimensions are clear, well-defined and present in the literature for some disorders (e.g., psychosis), but such dimensions are not mentioned for other disorders. Four diversely experienced researchers who are experts in studying insight in psychosis, BDD, OCD and anxiety disorders will define the domains of insight they deem important and describe its dimensions with specific examples. The aim is to provide clearer definitions of the concepts and dimensions of insight among these disorders. This will help reduce the misconceptions and confusion regarding the terms and provide a better understanding of the concept of insight and its importance, which will be helpful for researchers and clinicians. The importance of insight will be highlighted and described in relation to psychopathology and treatment outcomes. The panel discussion will also focus on whether insight is a multidimensional construct, whether it can be examined across disorders, the differing levels of insight across disorders and whether insight can vary across individuals—and even within patients—at different points either naturalistically or due to treatment.

### **Implications for everyday clinical practice of CBT**

Distinguishing between the different concepts/dimensions and assessing them separately is important, especially when clinicians and researchers evaluate insight before or during treatment. This may help to predict treatment-seeking behavior, treatment failures, and treatment outcomes.

## **Is Buying-Shopping Disorder a Real Disorder?**

**Convenor and Chair:** Michael Kyrios, Flinders University, Australia

**Speakers:** Astrid Muller, Hannover Medical School, Germany; Laurence Claes, University of Leuven, Belgium; Susana Jimenez-Murcia, University Hospital Bellvitge-IDIBELL, Spain; Daniel King, Adelaide University, Australia

Buying-Shopping Disorder (BSD) is beginning to be recognised as a mental health condition characterized by preoccupations about buying/shopping, urges to buy which are experienced as uncontrollable, invasive, irresistible or senseless, diminished control over

buying/shopping, and maintenance of excessive buying/shopping despite adverse social, emotional and financial consequences.

Buying/shopping behavior may be time-consuming, and experienced across a range of contexts such as malls, during sales, when shopping online, and during participation in online auctions. BSD commonly presents with other psychiatric disorders, such as mood, anxiety and other impulse control disorders, binge eating disorder and hoarding disorder. While there is currently a lack of agreed diagnostic criteria, prevalence estimates of 4.9% suggest a widespread problem that might also be on the increase in light of the advent of internet shopping, accessibility to credit cards and increasing materialism with consumer-driven economies.

BSD is now listed as an example of “other specified impulse control disorders” in the coding tool of the recently released 11th edition of the International Classification of Diseases (ICD-11), but it is not included in the ICD-11 as a separate mental health condition. In the most recent 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) [12], BSD was completely omitted, although the specifier “with excessive acquisition” was acknowledged in Hoarding Disorder. More recently, emerging neurobiological and psychological research findings have led some researchers to start conceptualizing BSD as an example of behavioral addiction rather than an impulse control disorder.

While the debate about the nature of BSD continues, its status as a mental health disorder is becoming less controversial, despite concerns that “problems of everyday living” are being medicalized. The current lack of agreement regarding the conceptualization of BSD and its diagnostic criteria is limiting research funding, ongoing research into its etiology, and treatment developments for this disabling condition. As it stands, treatment options are limited and their efficacy is not optimal. Improving our understanding of BSD will likely facilitate greater precision that benefits treatment development. The etiology of BSD remains largely unspecified and evidence-based models to explain the nature and identify causes of the disorder are urgently needed to serve as a basis for interventions.

This Panel Discussion brings together experts from the BSD area, as well as related disorders to discuss the conceptualization of uncontrolled buying and shopping, with a particular focus on BSD. Bringing expertise from neurobiological, psychosocial and identity, behavioral addictions, eating and obsessive-compulsive perspectives, the Panel will also discuss likely diagnostic issues such as criteria and differential diagnosis.

#### **Implications for everyday clinical practice of CBT**

The Panel Discussion will introduce attendees to diagnostic and case conceptualization considerations in managing patients challenged by uncontrolled buying/shopping phenomena. The Panel Discussion will give an overview of phenomena associated with Buying-Shopping Disorder (BSD), diagnostic criteria and deliberations regarding differential diagnosis, BSD assessment measures, diverse conceptualizations of BSD, and treatment considerations such as the limitations of current treatments and factors that treatment could target.

#### **Cognitive-Behavioural Supervision Around the World: Core Competencies and Cross-Cultural Considerations**

**Convenors and Chairs:** Cory Newman, University of Pennsylvania and Center for Cognitive Therapy, USA, and Sarah Corrie, The Central London CBT Training Centre and Middlesex University, United Kingdom

**Speakers:** Fredrike Bannink, Clinical psychologist, CBT trainer/supervisor, lawyer; Eduardo Keegan, University of Buenos Aires, Argentina; David A. Lane, Professional Development Foundation and Canterbury Christchurch University, United Kingdom; Chee Wing Wong, The Chinese University of Hong Kong, Hong Kong

Cognitive and behavioural therapies are developing at a rapid pace and are delivered in an increasingly diverse range of contexts. The competent practice of CBT in this evolving professional climate relies on a knowledgeable and skilled clinical workforce who are not only experts on subject matter but also able to adapt methods to best suit the particular populations they serve and to meet the administrative and regulatory demands of the locales in which they operate. Refining these abilities requires, in turn, the development of supervision methods that are consistent with the empirical knowledge base of CBT in general but also culturally sensitive and responsive to the learning needs of therapists and the clients they treat. This Panel Discussion brings together a group of international experts to compare and contrast ways in which CBT supervision is conceptualized, organized, and delivered in different parts of the world. Panel members representing five countries on four continents will compare and contrast their supervisory practices, taking into account universal principles based on the scientific foundations of CBT, whilst also describing their respective cultural considerations in areas such as norms of beliefs and behaviors (e.g., religion, gender roles), interpersonal customs that have implications for setting professional boundaries (both in therapy and supervision), power hierarchies, and teaching styles. A further focus will be the choice of supervising practitioners (whether established in practice or in training) on protocol-based interventions for specific clinical disorders, unified or generic CBT protocols that span across disorders, and/or process-based CBT. Additionally, the Panel Discussion will grapple with the pros and cons of official competency guidelines for CBT supervision as they are currently (or may be) proposed in different countries. Further, as this conference illustrates, the CBT world is still predominantly Anglo-centric in terms of professional communication. The implications of this state of affairs and the impact on dissemination of findings to supervisors and those whom they supervise across the linguistic spectrum will also be considered. Specific questions pertinent to the above will be highlighted in a single slide so that panelists can offer their opinions and counterpoints, and to allow audience members to formulate answers and participate actively in the discussion. As cognitive-behavioural therapies grapple with a future characterised by volatility, uncertainty, complexity, and ambiguity, the Panel Discussion will seek to discover what we can learn from each other as we share global perspectives on the science and practice of CBT supervision.

#### **Implications for everyday clinical practice of CBT**

Cognitive and behavioural therapies are developing at a rapid pace and are delivered in an increasingly diverse range of contexts for an equally diverse range of clients. If the workforce is to remain suitably knowledgeable and skilled in light of these developments, careful consideration must be given to the types of learning and development opportunity that support optimal practice. Supervision is widely acknowledged to be a foundational pedagogy of nurturing and monitoring the effectiveness of CBT practitioners. However, there is still much to learn about how to deliver this intervention to best effect, especially in light of adaptations arising as a function of local, national and global concerns. By discussing and debating a range of issues relating to the conceptualisation and delivery of CBT supervision, the aim is to uncover examples of good practice across the globe that have the potential to positively impact the delivery of CBT supervision in its myriad forms - in the present and the future.

### **(In)Appropriate Approaches to CBT for OCD**

**Convenor:** Adam Radomsky, Concordia University, Canada

**Chair:** Christine Purdon, University of Waterloo, Canada

**Speakers:** Christine Purdon, University of Waterloo, Canada; Adam Radomsky, Concordia University, Canada; Roz Shafran, Institute of Child Health, University College, United Kingdom; Philip Tata, British Association for Behavioural and Cognitive Psychotherapies, United Kingdom

There have been numerous developments in CBT for OCD since the very early days of Exposure and Response Prevention. These have included a growing emphasis on cognition, a more nuanced approach to the nature and role of exposure, and a departure from traditional hierarchy-based treatments to interventions driven by individualized cognitive case formulations. Many of these developments have been viewed as controversial, and as such, divergent approaches to CBT for OCD have developed. This panel debate will feature discussions of these issues as well as of appropriate vs. inappropriate exposures (e.g., whether to encourage clients/patients to engage in extreme activities), of determining how, when and why to encourage particular exposure exercises, the role of approach enhancing behaviour (i.e., a type of safety behaviour) in therapy and of novel CBT treatment developments and innovations by leading international experts in the nature and treatment of OCD from a cognitive-behavioural perspective.

#### **Implications for everyday clinical practice of CBT**

This discussion will have direct implications for clinical practice as it will focus entirely on how to do CBT with clients/patients struggling with OCD and related problems. Since many therapists struggle with clinical decision making about how, when, and why to implement specific CBT techniques and strategies, it is our hope that attendees will leave this panel with a better sense of how to make these decisions so as to best help their clients and patients with OCD.

### **Where in the World Are We in the Treatment of Youth Anxiety Disorders?**

**Convenor and Chair:** Sandra Pimentel, Montefiore Medical Center and Albert Einstein College of Medicine, USA

**Speakers:** Anne Marie Albano, Columbia University Medical Center, USA; Luis Joaquin Garcia-Lopez, University of Jaen, Spain; Jennifer Hudson, Macquarie University, Australia

Youth anxiety disorders are among the most common class of psychiatric disorders, and cognitive behavioral treatment (CBT) is established as an efficacious treatment. Recent years witnessed advancements in the dissemination of CBT to frontline settings such as schools and primary care, use of novel technologies to deliver standard treatments, optimization of care across development, and universal and targeted prevention efforts. And still, with these advancements, a significant proportion of anxious youth either do not receive our top-line treatments or do not respond to them. What are we missing? This international panel of child anxiety experts will share the latest innovations in the CBTs for anxious youth. Based on their own efforts and collaborations, panel members will address: current efforts conducted by the PROEM Network to implementing early detection, targeted prevention protocols, evidence-based psychotherapy and health interventions in schools (Garcia-Lopez); adapting youth anxiety programs to target the unique needs of anxious adolescents and emerging adults as they transition into adulthood with targeted functional assessment of developmental milestones; use of virtual reality to augment exposure interventions (Albano); delivering CBT to underserved, multi-problem, and immigrant anxious youth and families (Pimentel); and, personalized care approaches for better predicting those youth who may not initially respond to treatment (Hudson). Importantly, the panel aims to address and encourage audience discussion regarding what we may be missing in our intervention science, education and training, and systems of care, and propose potential solutions and strategies for science and practice.

#### **Implications for everyday clinical practice of CBT**

This panel brings together experts from around the world to highlight the latest advancements in CBT for youth anxiety and discuss all that we are getting right in research, training, and care delivery. Importantly, it will also highlight what we may be missing, and next steps and possible solutions for the everyday clinical practice of CBT for anxious youth for those who may not be responding or accessing our evidence-based treatments in the first place.

### **Sustaining "Authentic" CBT in Community Settings: Getting More Practitioners to Join the Party!**

**Convenor and Chair:** Robert Friedberg, CSTAY at PAU, USA

**Speakers:** Nikolaos Kazantzis, Monash University, Australia; Wilson Vieira Melo, Instituto de Terapia Cognitiva de Rio Grande de Sul, Brazil; Rebecca Friedberg, Duncan Channon Advertising, USA; Steinunn Sigurjonsdottir, Litla Kvlomeastooín (Anxiety Disorders Treatment Center for Children and Youth), Iceland

Scholarly journals and scientific texts abound with data supporting Cognitive Behavioral Therapy's (CBT) effectiveness with multiple clinical populations. However, many practicing clinicians ignore these findings preferring instead to deliver care according to their own guidelines. When asked, practitioners working in treatment-as-usual settings see CBT and other evidence-based practices as too rigid, narrow, and irrelevant to their caseload. Further, they do not report reading scientific journals. Clinicians tend to rely on consultation with other practitioners to improve their work. Unfortunately, many clinicians label themselves as CBT practitioners, but there is little in their work that resembles a CBT approach to psychiatric problems. Consequently, the research-practice gap endures prompting Weisz (2004) to ask, "What if researchers gave a party and nobody came?" In order for CBT to remain vibrant and evolve, emerging research must reach more clinicians and practitioners must be coaxed to join the party. The findings generated by clinical science must be made more inviting and accessible. This is precisely the focus of the panel discussion.

Sustaining authentic CBT will require developing new ways to communicate scientific advances and emerging clinical procedures. Experts from various professions (psychology, marketing analytics) in different settings (private practice, clinical training sites, academicians) from different countries (Australia, Iceland, Brazil, USA) will discuss several compelling questions and issues related to this issue. These discussion points include: 1). How can clinicians become more fully engaged as co-engineers of evidence-based practices? 2). How can effectiveness and efficacy research be made more relevant? 3.) How can the material be made more accessible and portable? 4). What are the advantages and disadvantages of distributing information via Twitter, You Tube and Wikipedia as well as other media platforms? 5). How can business-to-business (B2B) and direct-to-consumer marketing principles be employed to propel dissemination and implementation? This panel discussion aligns precisely with the Congress theme, Cognitive and Behavioural Therapies at the Crossroads. Navigating current and future crossroads calls for new strategies. Reasoned actions that shift existing paradigms and orthodoxies are necessary to spur continued progress. Discovering innovative channels for information distribution spread the word about CBT and potentially increase the uptake of evidence-practices. In this way, the crossroads will ideally lead in productive directions.

**Implications for everyday clinical practice of CBT**

Bridging the schism between research and practice has compelling implications for the everyday practice of CT. First, when science is made more accessible and clinically relevant, more clinicians will practice using state-of-the-art procedures. Consequently, patient care is improved. Better outcomes increase public confidence in treatment, reimbursement rates improve, and other financial streams can be developed. Patients then can live healthier lives, practitioners are rewarded, and the field becomes more sustainable.

## PRE-CONGRESS WORKSHOPS (in the following order: full day, half day, German)

### PRE-CONGRESS WORKSHOPS – FULL DAY

#### **Cognitive Behavior Therapy for Personality Disorders**

**Judith S. Beck, Beck Institute for Cognitive Behavior Therapy and University of Pennsylvania, USA**

Cognitive Behavior Therapy (CBT) for clients with personality disorders is based on the original cognitive model described by Aaron Beck, M.D. (Beck, 1963; 1964). This model was greatly elaborated upon in “Cognitive Therapy for Personality Disorders” by Beck et al, 1990, which was revised in 2015, and in “Cognitive Therapy for Challenging Problems” (J. Beck, 2007).

This workshop deals with the challenges of treating clients with personality disorders, clients who, for example, fail to engage in treatment, miss sessions, feel hopeless and stuck, become angry in session, engage in self-harm, use substances, blame others, avoid homework, experience continual crises, and so on. Special attention will be paid to the therapeutic alliance: how to engage clients, how to prevent therapeutic ruptures, and how to use therapeutic ruptures to strengthen the relationship and help clients learn how to view other people more realistically, solve interpersonal problems, decrease their use of unhelpful interpersonal coping behaviors, and improve relationships outside of treatment.

Another difficulty which will be addressed in this workshop is helping clients evaluate and modify their extremely longstanding, negative, dysfunctional, rigid, overgeneralized core beliefs. Finally, we'll address the use of experiential strategies, including changing the meaning of traumatic childhood experiences, to change clients' beliefs at both the intellectual and emotional level of processing.

#### **Implications for everyday clinical practice of CBT**

A national epidemiologic survey has estimated that approximately 15% of adults in the US have at least one personality disorder. A much higher percentage of adults have personality pathology that interferes with treatment. While many therapists are familiar with, and practice, standard CBT (for example, as is used in straight-forward cases of depression), they are often unaware of how to conceptualize and effectively treat clients whose acute disorders are complicated by a personality disorder.

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Matusiewicz, A.K., Hopwood, C.J., Banducci, A.N., & Lejuez, C.W. (2010). The effectiveness of cognitive behavioral therapy for personality disorders. *Psychiatric Clinics of North America*, 33, 657–285.

#### **Adapting Cognitive Behavior Therapy to the Distinctive Features of Eating Disorders**

**Kelly Bemis Vitousek, Hawaii University, USA**

In the nearly four decades since cognitive behavior therapy (CBT) was proposed for the treatment of bulimia nervosa (BN) and anorexia nervosa (AN) (Fairburn, 1981; Garner & Bemis, 1982), a strong evidence base has accumulated to support its effectiveness for BN and binge-eating disorder, with more tempered positive results for AN. Numerous modifications to the initial protocols have been suggested, including elements targeting body dissatisfaction, mood intolerance, interpersonal difficulties, perfectionism, and cognitive inflexibility. Some of these were incorporated into Fairburn's (2008) enhanced transdiagnostic formulation (CBT-E), which has become the dominant approach for adults with eating disorders (EDs). Nonetheless, there is consensus that improved interventions are needed, particularly for individuals with AN. Before concluding that CBT has reached its ceiling of effectiveness for EDs, two directions of inquiry are recommended.

First, despite its transdiagnostic emphasis, the approach has yet to take full advantage of developments in CBT for other disorders. For example, therapist-assisted exposure has clear potential relevance for addressing fear and avoidance in the context of EDs. With focal exceptions, however, exposure techniques have been both underused and attenuated in this area, lagging far behind advances in the anxiety disorder field. Recent proposals to make more systematic, intensive use of exposure in treating EDs are consonant with the existing CBT model – and long overdue.

Second, even as we profit from treatment advances that target common processes across diagnostic groups, we should redouble our efforts to understand and address features that distinguish the EDs from other forms of psychopathology. These include the phenomenology of semi-starvation, the positive valuation of symptoms, and the hard work required to sustain extreme dietary restriction. Although these elements are highlighted in conceptual CBT models of AN, they have received surprisingly little research and clinical attention.

This workshop will highlight several key themes that should inform the design and delivery of modified treatment approaches. Specific recommendations for adapting CBT to the distinctive features of EDs will be outlined and illustrated with numerous clinical examples. Guidelines for incorporating *in vivo* and imaginal exposure will be reviewed in detail, with role-play practice of sample scenarios.

#### **Implications for everyday clinical practice of CBT**

Although the EDs share features with many psychiatric disorders, some of their most distinctive characteristics make a disproportionate contribution to the challenges we face in treatment. This workshop will concentrate on specific clinical strategies for overcoming obstacles to the use of CBT with ED patients, including the effects of semi-starvation, ambivalence about full symptomatic recovery, reluctance to experiment with new behaviors, and the persistence of food-related anxiety and body dissatisfaction despite extended exposure. The session will be geared toward clinicians with a strong general background in CBT and/or familiarity with dominant CBT approaches for EDs.

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#### **Working with Complexity in Psychosis**

**Sandra Bucci, University of Manchester, United Kingdom**

Vulnerability to experiencing psychosis has been linked to a range of adverse psychological, social and environmental circumstances, including attachment and relational difficulties, dissociative processes, poverty, social deprivation, urbanisation, and victimisation, to name a few (Read et al., 2008; van Os et al., 2010). Voice-hearing can be a particularly distressing experience for people with psychosis, and acting on auditory hallucinations remains one of the most distressing and high risk symptoms of psychosis. Command hallucinations are often the most distressing voice-hearing experience for both clinicians to manage and service users to experience. Evidence suggests that cognitive appraisals, the relationship a voice-hearer has with a voice, and the nature of a voice hearer's broader social relationships predicts harm to self and others (Birchwood et al., 2018). A cognitive therapy approach that considers processes in addition to biased appraisals might therefore represent a fruitful therapy option for people with distressing psychotic experiences.

The cognitive model of voices suggests that it is not only the level of voice activity, or the content of voices, that influences distress, but the nature of the relationship with the personified voice that affects distress and subsequent behaviour. This workshop will show how relational

approaches to therapy, incorporating attachment processes, combined with traditional cognitive concepts, can be used to deliver therapy for complex voice-hearing experiences. The cognitive framework that will be used in the workshop is called cognitive therapy for command hallucinations (CTCH; Byrne et al, 2006; Meaden et al., 2013). CTCH is designed to weaken and challenge voice-hearers' beliefs about voice power. CTCH was tested in a large multi-site trial with reductions in the power of the voice and reduced levels of compliance with voice commands (Birchwood et al., 2014).

This workshop is for clinicians who have some experience working with clients who experience psychosis but who are looking to develop their skills in working with clients who present with more complex voice-hearing experiences. The workshop will build on existing cognitive models of voice-hearing and highlight specific factors that clinicians might wish to consider when working with this client group.

#### **Implications for everyday clinical practice of CBT**

Clinicians will practice formulating distressing voice-hearing drawing on attachment and other relational concepts and how these can be integrated into evidence-based cognitive models of voice-hearing.

Clinicians will practice behaviour change strategies that they can use in everyday practice to help reduce the perceived power voice-hearers experience in relation to voices in order to help clients manage distressing voices.

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- Berry, K., Varese, F. and Bucci, S., 2017. Cognitive attachment Model of Voices: evidence base and future implications. *Frontiers in Psychiatry*, 8, p.111.

### **Cognitive Therapy for Social Anxiety Disorder in Adults and Adolescents**

**David M Clark, University of Oxford, United Kingdom**

Social anxiety disorder is common and remarkably persistent in the absence of treatment. It frequently leads to occupational and educational underachievement. Interpersonal relationships are impaired. Dissatisfaction with the way that life is progressing often triggers depressive episodes.

Clark and Wells (1995) proposed a cognitive model that aims to explain why social anxiety disorder is so persistent. A distinctive form of cognitive therapy that targets the maintenance processes classified in the model was developed. Randomised controlled trials in the UK, Germany and Sweden have demonstrated that the new treatment is highly effective. Comparisons with other active treatments have established that cognitive therapy is superior to: two forms of group CBT, exposure therapy, interpersonal psychotherapy, psychodynamic psychotherapy, SSRIs, medication-focussed treatment as usual, and placebo medication. Such a comprehensive demonstration of differential effectiveness is extremely rare in psychotherapy.

This workshop presents the Clark & Wells model and illustrates the key treatment procedures that have been developed from the model.

These include: the self-focused attention and safety behaviours experiential exercise, video-feedback, externally-focused attention training, behavioural experiments, and procedures (discrimination training and memory re-scripting) for addressing early experiences that influence patients' current behaviour in social situations. The treatment procedures are illustrated with case material and videos clips from therapy sessions. Guidance on the use of the most appropriate measures for identifying therapy targets and monitoring progress is also provided.

Finally, the workshop explains why some procedures that are common in other CBT programs (e.g. thought-records, positive self-talk in a phobic situation, exposure hierarchies) are NOT used in Clark & Wells' cognitive therapy program. As social anxiety disorder usually starts in adolescence, the workshop covers how to use the treatment in adolescents as well as adults.

#### **Implications for everyday clinical practice of CBT**

Social anxiety is the most common of the anxiety disorders and is a complication in many other clinical conditions. Research suggests that optimal outcomes are achieved when standard cognitive behavioural therapy approaches are augmented with a series of specialised procedures such as video feedback, training in externally focused non-evaluative attention, and modified PTSD related interventions for socially traumatic earlier experiences. This workshop is therefore likely to be of benefit to a range of clinicians who regularly treat patients with different anxiety disorders.

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### **Reimagining Cognitive Behavioural Therapy for Major Depression: Using a Contextual Framework to Conceptualize and Treat Depression**

**Keith Dobson, University of Calgary, Canada**

Cognitive behavioral therapy for depression has been one of the most intensively studied forms of psychotherapy. It has ongoing evidence for its absolute efficacy, but declining evidence for its superiority over other treatment models for depression. This workshop argues that part of the need is to reimagine CBT for depression in a more holistic manner, and to use recent data on the risk and resilience factors, to build a current and contextualized framework to conceptualize and treat major depression. This workshop will provide a contemporary framework to view depression that builds on proven methods but enhances that framework and thus provides more skills for CBT therapists, more flexibility in treatment, and a significant opportunity to help more patients who struggle with the problem of clinical depression. The focus of the workshop will be on conceptualization and case planning; while major evidence-based treatment methods will be described, this will not be a major focus of the workshop

#### **Implications for everyday clinical practice of CBT**

This workshop will help clinicians to hone their case conceptualization skills, to develop a more comprehensive and contemporary model of major depression and select methods that are likely to be successful when working with depressed clients. From a practical perspective, this approach should yield higher success rates and fewer relapses, more satisfaction among patients, enhanced competence among therapists, shorter wait lists and enhanced patient care.

#### **References**

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## **Schema Therapy for Personality Disorders**

**Eva Fassbinder, University of Lübeck, Germany**

Schema therapy (ST) with the schema mode approach is currently one of the major developments in the treatment of personality disorders (PD). ST is a transdiagnostic approach, but also provides disorder-specific models for most PDs. A number of studies demonstrate effectiveness for treatment based on these models, especially for Borderline Personality Disorder (BPD) and Cluster-C-PDs (avoidant, dependent and obsessive-compulsive PD). The mode model gives a clear structure for the development of an individual case concept, in which all current symptoms and interpersonal problems of the patient and the connection with their biographical context can be accommodated. The therapeutic interventions are adapted to the present mode in the specific situation. ST uses cognitive and behavioral techniques and there is a special focus on experiential techniques (especially chair dialogues and imagery rescripting) and on specific features of the therapeutic relationship ('limited reparenting'). This workshop gives an overview of the theoretical backgrounds and practical application of the schema mode model. Case conceptualization and major ST techniques are illustrated with case examples and participants will train these techniques by means of roleplay.

### **Implications for everyday clinical practice of CBT**

The mode model provides a clear structure to understand the origins and persistence of PD patients' problems. All occurring problems and interpersonal disturbances are explained and worked with in an individual mode model. With the mode model in mind in everyday practice even severe interpersonal problems, which often also affect the therapeutic relationship and cause distress on both sides, are seen as 'survival strategies' to protect the vulnerable part of the patient and can be directly addressed. This and the central attitude of limited reparenting leads to high acceptance of ST in both therapists and patients and low drop-out rates.

### **References**

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## **How to be an Inspiring Trainer**

**Melanie Fennell, Oxford Cognitive Therapy Centre and Oxford Mindfulness Centre, University of Oxford, United Kingdom**

Did you recently finish your own cognitive behaviour therapy (CBT) training and discover you were immediately expected to pass on what you learned to others? Has your training role suddenly expanded, so that you have to design and deliver sessions you have never taught before? Do you only feel secure as a trainer when everyone's attention is on your PowerPoint presentation rather than you? Are you an experienced trainer, looking for an opportunity to reflect and replenish your resources? Or do you simply want to know how to train others more effectively?

Training clinicians to deliver high quality cognitive-behavioural therapy (CBT) presents challenges, even for experienced therapists. Training competences have not yet been defined, and very few clinicians are themselves trained to train others. It is as if, once you know how to do CBT, you should also know how to train others to do it, and do so confidently and well.

This practical, highly interactive workshop offers a framework for designing training events which facilitate active participant engagement in the learning process, and thus achieve the ultimate intention of training: deep processing of material, accurate retention of what has been learned, and a lasting capacity to apply it flexibly in the real world of clinical practice.

The workshop draws on concepts and research from adult education and management development, as well as psychological principles, to show how trainers can create a respectful, collaborative, highly experiential learning culture, reminiscent of the learning culture of CBT itself. It interweaves conceptual material with opportunities for reflection and discussion, and in particular participants will be invited to put what they are learning into practice, applying new ideas to their own training projects.

### **Implications for everyday clinical practice of CBT**

The workshop focuses on helping therapists become effective, confident – even inspirational – trainers of other clinicians, rather than on clinical practice per se. Thus its implications for the everyday clinical practice of CBT are indirect. They lie in the future capacity of participants to contribute to the continuing development of other clinicians, by providing high quality training in CBT.

### **References**

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## **Compassion Focused Therapy for Self-criticism**

**Paul Gilbert, University of Derby, United Kingdom**

This workshop is in two parts. The first part of the workshop will explore the nature of compassion and its origins in the evolution of caring behaviour. Participants will also be introduced to the three basic forms of emotion regulation linking to threat detection, reward detection, and rest and digestive function. These will be explored in regard to how they pattern the autonomic nervous system and how the parasympathetic system in particular is important for the regulation of threat. The second part of the workshop will focus on the forms and functions of self-criticism and how bringing compassion motivation and emotion to the problem of self-criticism facilitates a range of change processes.

### **Implications for everyday clinical practice of CBT**

The core principle of compassion focused therapy is that various aspects of structured therapies work better when they are integrated with an understanding of how affiliative guiding physiological systems regulate threat. Hence for example cognitive reappraisal works better if individuals are guided through the process whereby they can develop breathing exercises and focus on compassion motivation and emotional tone in the reappraisal. Attempting to reappraise difficult beliefs with an emotional tone of hostility is unhelpful hence the need to target change becomes emotional texture of the alternative thoughts. Also the compassionate mind gives an orientation to reappraisal.

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## **Process-Based Cognitive Behavior Therapy**

**Steve Hayes, University of Nevada, USA & Stefan Hofmann, Boston University, USA**

Cognitive Behavioral Therapy (CBT) has been an enormous empirical and practical success over its more than 50+ year history. The situation surrounding evidence-based care has dramatically changed, however, and it is important for CBT to change as well. For decades, evidence-based therapy has been defined in terms of scientifically validated protocols focused on syndromes. That era seems to be passing away and a new generation of evidence-based care has begun to move toward process-based CBT to target core mediators and moderators based on testable theories. This approach could have far-reaching implications for the theory and practice of psychotherapy. It might lead to a decline of named therapies defined by set technologies, a decline of broad schools, a rise of testable models, a rise of mediation and

moderation studies, the emergence of new forms of diagnosis based on functional analysis, a move from nomothetic to idiographic approaches, and a move toward processes that specify modifiable elements. These changes might have the potential to integrate or bridge different treatment orientations, settings, and even cultures.

#### **Implications for everyday clinical practice of CBT**

A process-based approach focuses on how to best target and change core biopsychosocial processes in specific situations for given goals with given clients. This is an inherently more idiographic question that has normally been at issue in evidence-based therapy. Clinicians will learn specific methods of utilizing an idiographic and process-oriented CBT approach.

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### **Cognitive Behavior Therapy for Children and Adolescents with Anxiety Disorders**

**Jennie Hudson, Macquarie University, Australia**

Anxiety disorders are the most common mental disorder in children and young people, yet they often go unrecognised and untreated. Children with anxiety disorders are also at risk of developing other mental disorders such as depression, substance abuse as well as continued anxiety across the lifespan. Effective treatment of anxiety disorders in childhood can prevent the development of other mental health issues later in life.

Cognitive behavioural therapy (CBT) for children with anxiety disorders is efficacious in reducing the presence of anxiety disorders and symptoms. Results from systematic reviews demonstrate recovery rates of approximately 60% (Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, & Harrington, 2004; James, Soler, & Weatherall, 2005). Typically, manual based CBT, such as the Cool Kids program (developed in Australia) includes unified protocol that targets a range of anxiety disorders in children including, Generalised Anxiety Disorder, Separation Anxiety Disorder, Social Anxiety Disorder, Specific Phobia, Panic Disorder, Agoraphobia, Selective mutism, Post-Traumatic Stress Disorder, Obsessive Compulsive Disorder. This is largely due to the high rates of comorbidity between anxiety disorders in childhood. Although separate anxiety disorders can be differentiated in childhood, it is generally agreed that there is an underlying construct of anxiety that can be treated within a broad-based protocol such as the Cool Kids program.

This workshop covers general information on anxiety disorders including diagnostic criteria, assessment techniques and current research findings on factors that maintain anxiety and how this links with treatment approaches. It also provides specific training on how to run the Cool Kids™ anxiety program.

#### **Implications for everyday clinical practice of CBT**

The Cool Kids program is designed to train children, adolescents and their families in anxiety management skills and can be used in clinical, community and school settings. The workshop will teach participants to implement the program within a range of settings.

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### **Emotional Schema Therapy**

**Robert L. Leahy, American Institute for Cognitive Therapy, USA**

Everyone experiences unpleasant emotions, but not everyone develops GAD, PTSD, Major Depression or a psychological disorder. Emotional Schema Therapy is an integrative, social cognitive model that proposes that problems arise as a result of evaluations, interpretations, and predictions about emotional experience that result in problematic coping strategies. For example, an adaptive interpretation of sadness and anger after a breakup would include normalizing the emotion, viewing the emotion as temporary, relating the emotion to values of intimacy, and validating one's own experience. However, our research shows that depression, anxiety, worry, rumination, avoidance, and indecisiveness are the result of viewing one's emotions as lasting indefinitely, out of control, abnormal, shameful, incomprehensible and unacceptable. These beliefs result in unhelpful emotion regulation strategies that perpetuate the negative beliefs about one's emotions. In this workshop we will cover the fundamental Emotional Schema Therapy Model, techniques and conceptualizations that address the major dysfunctional emotional schemas, experiential and cognitive techniques to cope with emotional experience, and methods to enhance emotional enrichment, differentiation and emotional intelligence. This will include discussion of Emotional Perfectionism, Existential Perfectionism, "Pure Mind", Intolerance of Ambivalence, Constructive Discomfort, Successful Imperfection, and Personal Empowerment. In addition, we will discuss how an Emotional Schema conceptualization can assist in understanding how emotional socialization, current beliefs about emotion, and current unhelpful strategies often limit the individual in developing a fully enriched life.

#### **Implications for everyday clinical practice of CBT**

All of the psychological disorders involve difficulties in tolerating or experiencing emotion. The Emotional Schema Model can assist CBT practitioners in assisting clients in enriching their emotional experience, learning from their emotions, relating their emotions to their values, and developing productive strategies for coping with emotions.

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### **Psychological Therapy for Bipolar Disorder – Why? What? How?**

**Fiona Lobban & Steve Jones, Lancaster University, United Kingdom**

Bipolar Disorder affects approximately 1 – 1.5% of adults and is the third most common mental health cause of disability globally. The impact on quality of life can be devastating and rates of suicide are high. However, variation in outcomes between and within individuals, and the value placed on positive aspects of bipolar experiences, highlights important opportunities for psychological therapy. The pros and cons of diagnosis, ambivalence about taking medication, the desire to experience hypomanic highs coupled with fear of depressive lows, and finding ways to achieve personally valued goals whilst managing the more destructive aspects of mood swings are just some of the range of challenges people are likely to bring to psychological therapy.

In this workshop we will explore the lived experiences of bipolar disorder, identifying the key issues that lead people to seek therapy. We will review psychological models of the cognitive and behavioural processes underlying these experiences, and explore how these can be modified to empower people to achieve their valued goals.

In addition to individual face-to-face therapy, we aim to inspire participants to broaden their range of skills by exploring new ways of implementing CBT including how to: involve a relative / friend in the therapeutic process where appropriate; offer group interventions to harness the power of peer support; incorporate the growing range of digital tools being developed for bipolar disorder into their practice.

#### **Implications for everyday clinical practice of CBT**

We are delighted to welcome you to our workshop. Our aim is that you will be intellectually stimulated, actively involved, and have a fun day (we learn better when it's fun). By the end, you will have an in-depth understanding of bipolar experiences and a practical guide to identifying recovery goals. You will have a framework of how to apply your cognitive and behavioural skills to working with this population. You will be familiar with a range of different ways in which psychological therapy can be offered to increase access and choice for the people you work with, and the evidence to support these.

#### **References**

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#### **In the Face of Adversity Build Resilience with Strengths-Based CBT**

**Christine A. Padesky & Kathleen A. Mooney, Center for Cognitive Therapy, USA**

In the face of adversity, even the strongest among us sometimes find it hard to stay resilient. Some people have never felt resilient. In this workshop, Padesky & Mooney teach a 4-step protocol to help clients build a personal model of resilience (PMR). Their protocol and model are easily integrated with classic CBT approaches and other evidence-based therapies. Drawing on the principles of Strengths-Based CBT (Padesky & Mooney, 2012), six key methods are highlighted: (1) how to identify and integrate strengths into CBT, (2) guided discovery approaches used to elicit a personal model of resilience, (3) the timing and rationale for therapeutic smiling, (4) use of imagery and metaphor, (5) the importance of silence for fostering client creativity, and (6) debriefing behavioral experiments through a resiliency lens. Clinical demonstrations, structured participant role plays, and question & answer segments clarify the theory, rationale, methods and application of a PMR. Common therapy pitfalls are identified along with recommended alternative approaches. Participants are strongly encouraged to download and read Padesky & Mooney's 2012 article before attending the workshop. Greater familiarity with this material will foster increased depth of workshop learning (i.e., the more you know, the more you will learn). It can be downloaded from <https://onlinelibrary.wiley.com/doi/full/10.1002/cpp.1795>

#### **Implications for everyday clinical practice of CBT**

This strengths-based approach can be integrated within all forms of evidence-based psychotherapy practice. Just a few sessions is required to boost client awareness and practice of resilience. In addition, there is evidence from pilot research (Victor, Teismann, & Willutzki, 2017) that this 4-step model to build resilience can be used as a brief (3 session) independent intervention to build resilience, self-esteem and well-being and reduce the risk of psychopathology in nonclinical populations such as university students.

#### **References**

- Mooney, K.A. & Padesky, C.A. (2000). Applying client creativity to recurrent problems: Constructing possibilities and tolerating doubt. *Journal of Cognitive Psychotherapy: An International Quarterly*, 14 (2), 149-161. [available from <http://padesky.com/clinical-corner/publications>]
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#### **Using Case Formulation and Progress Monitoring to Guide Cognitive Behavior Therapy**

**Jacqueline Persons, Oakland Cognitive Behavior Therapy Center and University of California, USA**

In a case formulation-driven approach to cognitive-behavior therapy, the therapist develops a hypothesis (formulation) about the factors that cause and maintain the patient's difficulties, and uses it to guide intervention. The formulation aids in many ways, including by helping the therapist integrate interventions drawn from multiple diverse CB models, guide treatment for multiple-problem patients, and solve problems that arise in treatment. As treatment proceeds, the therapist uses the formulation and progress monitoring data to test the formulation, evaluate the effectiveness of the interventions, and solve problems. In this workshop, Dr. Persons begins with a brief description of the conceptual model underpinning this hypothesis-testing approach to CBT, and spends most of the workshop providing hands-on training in the key skills of developing a case formulation, collecting progress monitoring data, and using the formulation and the progress monitoring data to guide clinical decision-making. Teaching methods include lecture, video and audio demonstration, practice exercises, and extensive case examples. Dr. Persons provides numerous handouts, assessment scales, and forms.

#### **Implications for everyday clinical practice of CBT**

Attendees will learn strategies for developing a case formulation for their patients and collecting progress monitoring data, and using the formulation and progress monitoring data to guide clinical decision-making. The presenter will provide numerous examples and forms and tools to aid the clinician.

#### **References**

- Kazdin, A. E. (1993). Evaluation in clinical practice: Clinically sensitive and systematic methods of treatment delivery. *Behavior Therapy*, 24, 11-45.
- Persons, J. B. (2008). *The case formulation approach to cognitive-behavior therapy*. New York: Guilford.
- Persons, J. B., Beckner, V. L., & Tompkins, M. A. (2013). Testing case formulation hypotheses in psychotherapy: Two case examples. *Cognitive and Behavioral Practice*, 20(4), 399-409.

#### **Treating Mental Contamination in Obsessive Compulsive Disorder: A Contemporary Cognitive Approach**

**Adam S. Radomsky, Concordia University, Canada**

Obsessive-compulsive disorder (OCD) is a heterogeneous disorder; common symptoms include washing and checking behaviour, as well as primary obsessions (i.e. repugnant, unwanted, intrusive thoughts, images and impulses). There has been a surge in recent research on each of these forms of OCD, with publications often solidly grounded in a variety of cognitively-based models. Although these models differ to some extent in their explanation of obsessional and compulsive phenomena, they share a number of important features that are consistent with broad cognitive principles. These have enabled a new, primarily cognitive conceptualization of contamination-based OCD, the

assessment and treatment of which will be the main focus of this workshop. We will begin with a review of the theoretical and empirical work conducted on the psychopathology and treatment of contamination-related manifestations of OCD. The workshop will continue with practical instruction on the cognitive-behavioural assessment and treatment of contamination-related OCD, with emphasis on strategies and interventions for mental contamination (contamination-based symptoms that occur in the absence of direct contact with a physical contaminant). Attendees will learn about cognitive case formulation, the importance of ongoing assessment, and specific therapeutic interventions, all following from cognitive-behavioural models of OCD. Although OCD remains a serious and often debilitating disorder, our ability to substantially improve the lives of those suffering from the problem has dramatically increased in recent years. This workshop will capitalize on these recent improvements through the emphasis of new cognitive and behavioural treatment strategies for this challenging disorder.

#### **Implications for everyday clinical practice of CBT**

Traditional CBT approaches to treating OCD rely heavily on exposure and response prevention. These are based in the notion that contamination arises as a result of direct contact with a contaminant

- However, mental contamination, where contamination symptoms arise in the absence of direct contact with a physical contaminant may be under-served by this approach
- Advances in our understanding of mental contamination suggest that cognitively-based approaches may be particularly helpful
- This workshop will provide an overview of theory, research, assessment, case formulation, and treatment strategies for use with clients who present with mental contamination symptomatology.

#### **References**

- Rachman, S., Shafran, R., Coughtrey, A.E., & Radomsky, A.S. (2015). *Oxford guide to the treatment of mental contamination*. Oxford: Oxford University Press.
- Radomsky, A.S., Rachman, S., Shafran, R., Coughtrey, A.E., & Barber, K.C. (2014). The nature and assessment of mental contamination: A psychometric analysis. *Journal of Obsessive Compulsive and Related Disorders*, 3(2), 181-187. doi:10.1016/j.jocrd.2013.08.003
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#### **Variable Length Cognitive Processing Therapy for Post Traumatic Stress Disorder**

**Patricia A Resick, Duke University Medical Center, USA**

Cognitive Processing Therapy (CPT) has been listed as a first rank therapy for PTSD in numerous treatment guidelines and there have been more than two dozen well-controlled randomized controlled trials as well as a number of effectiveness community and veteran studies demonstrating the efficacy and effectiveness of CPT. Although there have been only a few studies thus far examining variable length CPT, it appears to increase the outcomes because of the individualized nature of the protocol. This workshop will give an overview of the usual 12-session protocol and will then present the evidence supporting variable length CPT. The workshop leader will demonstrate how to introduce the concept of variable length treatment and will then show how to determine whether someone is ready to stop early or needs to continue on with more sessions. Demonstrations with recorded examples will be shown.

#### **Implications for everyday clinical practice of CBT**

In everyday practice settings a set-length therapy protocol may not be feasible, needed or may not be sufficient. Being comfortable with discussing how long to treat patients and when to stop is in keeping with usual practice standards and may improve outcomes and reduce drop-out. Keeping fidelity to the CPT protocol but abbreviating or elongating it is a skill that may increase usage of an evidence-based treatment such as CPT.

#### **References**

- Galovski, T.E., Blain, L.M., Mott, J.M., Elwood, L., Houle, T. (2012). Manualized therapy for PTSD: Flexing the structure of cognitive processing therapy. *Journal of Consulting and Clinical Psychology*, 80(6), 968-981.
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#### **Worried Sick? Extending the Application of the CBT from Health Anxiety to Medically Unexplained Symptoms and Long Term Medical Conditions**

**Paul Salkovskis, University of Oxford, United Kingdom**

Cognitive behavioural approaches to health anxiety have been shown to be effective in RCTs in people where the main presenting problem is anxiety focussed on health, and in those seeking medical help in hospital found to have high levels of health anxiety. There are also indications that CBT could be effective in Medically Unexplained Symptoms (MUS) and in Long Term Physical Health problems (LTC) associated with relatively severe psychological distress.

In this workshop, Paul will describe the cognitive behavioural theory of health anxiety and how that has been applied to the development and validation of a treatment which evidence suggests is both effective and cost effective, and which can be relatively easily learned by health professionals. The main components of this treatment will be described and illustrated, with the emphasis on the clinical "how to".

The complex link between health anxiety and problems in general medical settings (both primary and secondary care) will be discussed, and evidence for generalisation to both MUS and LTC evaluated. The adaptations required for the application of the health anxiety treatment in this context will then be outlined, particularly focusing on the fact that anxiety and perception of threat alone will not always account for the maintenance of psychological distress in such problems. A trans-diagnostic model will be detailed which allows the application of a transdiagnostic CBT approach to therapy. However, it is emphasized that attention to specific issues is also required, so the treatment is in fact a hybrid of transdiagnostic and specific elements. The way such treatment should be conducted, from screening, assessment and formulation and engagement through to more active treatment, behavioural experiments and generalization strategies will be outlined in the context of MUS such as IBS, chronic pain, CFS and so on.

The importance of using an empirically and theoretically grounded transdiagnostic approach as a way of ensuring high quality therapy is thus considered in the context of the need to address the specific issues in symptomatically diverse problems such as chronic pain, Irritable bowel, chronic fatigue and so on. Core elements of treatment include engagement and developing a shared understanding supplemented by "modules" addressing specific aspects of MUS in the later stages of treatment, with behavioural experiments cutting across both aspects of the treatment. Treatment fundamentals and details will be discussed and, where possible, demonstrated.

This workshop provides the foundation for CBT for health anxiety and its application to a range of presentations including MUS and LTC in addition to where health anxiety is the primary problem.

#### **References**

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- Salkovskis, P. M., Gregory, J. D., Sedgwick-Taylor, A., White, J., Ophers, S., & Ólafsdóttir, S. (2016). Extending Cognitive-Behavioural

Theory and Therapy to Medically Unexplained Symptoms and Long-Term Physical Conditions: A Hybrid Transdiagnostic/Problem Specific Approach. *Behaviour Change*, 1-21.

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Sorensen, P., Birket-Smith, M., Wattar, U., Buemann, I., & Salkovskis, P. (2011). A randomized clinical trial of cognitive behavioural therapy versus short-term psychodynamic psychotherapy versus no intervention for patients with hypochondriasis. *Psychological Medicine*, 41(2), 431-441.

### **Transforming the Lives of Children, Parents, and Communities Through Evidence-based Parenting Support**

**Matthew Sanders, The University of Queensland, Australia**

This workshop provides an overview of the Triple P multilevel system of parenting interventions and their application to a broad range of child social and emotional problems. A self-regulation framework in actively teaching parenting skills is discussed and demonstrated. A population based model of evidence base parenting support is described with specific case exemplars to highlight how parenting interventions can achieve population level change, benefiting children, parents and communities. Strategies for dealing with vulnerable and high risk parents are discussed including parents with mental health problems, relationship problems, and parents affected by substance abuse. Procedures for promoting fidelity of intervention are discussed. A series of case scenarios are used to develop participant clinical problem solving and formulation skills. The workshop will cover the full spectrum of evidence based interventions from media and communication strategies, seminars, discussion groups, intensive group and online programs and enhanced individual programs for complex cases. Organisational and implementation factors related to sustainability and fidelity will be discussed.

#### **Implications for everyday clinical practice of CBT**

This workshop will introduce participants to Triple P as an effective, multi-level system of parenting intervention that includes variants for both prevention and treatment of child and adolescent social, emotional and behavioural problems

#### **References**

Sanders, M. R., & Mazzucchelli, T. G. (Eds.). (2017). *The Power of Positive Parenting: Transforming the Lives of Children, Parents, and Communities Using the Triple P System*. Oxford University Press.

Sanders, M. R., Burke, K., Prinz, R. J., & Morawska, A. (2017). Achieving population-level change through a system-contextual approach to supporting competent parenting. *Clinical Child and Family Psychology review*, 20(1), 36-44.

## **PRE-CONGRESS WORKSHOPS: HALF DAY**

### **Brief Integrated Motivational Intervention for Alcohol and Cannabis Use : A Cognitive/Motivational Approach for People with Serious Mental Health Problems**

**Alex Copello, University of Birmingham, United Kingdom**

It is very common for people with serious mental health problems to experience difficulties associated with the use of alcohol and/or cannabis. This can mean they are also more likely to experience a number of problems which can impact significantly on their mental health, such as repeated hospital admissions and not accessing support which could help them in their recovery. People with these challenges are also more likely to have problems with their physical health and die much earlier than those without these challenges. However, it can be very difficult for someone to reduce alcohol and/or cannabis use. An admission to a mental health hospital can provide an opportunity (a 'teachable moment') for people to reflect on their life and think about whether they want to make changes. This period of reflection might give staff an opportunity to talk to people about some of the benefits of reducing their alcohol/cannabis use, including benefits to their mental and physical health and to their day-to-day life. The Brief Integrated Motivational Intervention (BIMI) aims to use the 'teachable moment' and opportunistically respond by engaging in a motivational dialogue with those affected. It is an evidence based structured cognitive/behavioural/motivational approach developed to help people in these circumstances. It involves offering short structured conversations with staff to help people reflect on the impact of alcohol and/or cannabis use on their life and how this may affect their hopes and goals for the future.

#### **Implications for everyday clinical practice of CBT**

The workshop will offer participants an opportunity to consider their practice in response to substance use in people with severe mental health problems. The key components of the Brief Integrated Motivational Intervention (BIMI) will be introduced. The aim is that participants will be able to incorporate strategies learnt during the workshop into their discussions with people experiencing these problems and hence into their everyday practice either within in-patient units or more widely when working with people with serious mental health problems.

#### **References**

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Graham, H., Copello, A., Griffith, E., Freemantle, N., McCrone, P., Clarke, L., Walsh, K., Stefanidou, CA; Rana, A; Birchwood, M. Pilot randomised trial of a brief intervention for comorbid substance misuse in psychiatric inpatient settings. *Acta Psychiatrica Scandinavica* 2015:1-12.

Graham, H. L., Copello, A., Griffith, E., Clarke, L., Walsh, K., Baker, A. L. & Birchwood, M.(2018) Mental health hospital admissions: a teachable moment and window of opportunity to promote change in drug and alcohol misuse. *International Journal of Mental Health and Addiction*. p. 1 - 19

### **Inhibitory Learning and Regulation During Exposure Therapy: From Basic Science to Clinical Application**

**Michelle Craske, University of California, USA**

The therapeutic strategy of repeated exposure is effective for fears and anxiety disorders, but a substantial number of individuals fail to respond. Translation from the basic science of inhibitory extinction learning and inhibitory regulation offers strategies for increasing response rates to exposure therapy. This workshop will present the application of these strategies, including prediction error correction ('violation of expectancy'), variability across stimuli and contexts to enhance generalization, interference with hippocampal activation to enhance context generalization, bridging techniques to retrieve exposure memories in novel contexts, induction of positive valence, and linguistic processing ('affect labeling') of feared stimuli.

#### **Implications for everyday clinical practice of CBT**

Tailor methods for conducting exposure therapy to facilitate response rates and reduce return of fear

#### **References**

Craske, M.G., Treanor, M., Conway, C., Zbozinek, T., & Vervliet, B. (2014). Maximizing exposure therapy: An inhibitory learning approach. *Behaviour Research and Therapy*, 58, 10-23.

Craske, M.G., Hermans, D., & Vervliet, B. (in press). State of the art and future directions for extinction as a translational model for fear and anxiety. *Philosophical Transactions B*

### **Integrating Couple-Based Approaches in Behavior Therapy for Children**

**Nina Heinrichs, University of Brunswick, Germany**

Cognitive-behavior therapy for children has paid increasing attention to the role of parents in the etiology and maintenance of mental disorders in children and adolescents. There are several meta-analyses focusing on potential effects of including parents into the treatment of the child, specifically for younger children. Effect sizes vary by disorder and are usually the most prominent in interventions with children with oppositional-defiant disorder. Furthermore, family conflict is a well-established risk factor for mental disorders, and although less well researched, likely also for maintenance of treatment success. Fairly often, conflictual interactions are also occurring during treatment, in-session, between a parent and a child or between two parents as a couple. This workshop will demonstrate how to deal with conflictual interactions, specifically between parents as a couple, when the child was brought into treatment. A specific focus will be on couples in marital discord or with relationship distress. This workshop will, however, not deal with mediation after divorce. The workshop will present how to integrate components of empirically supported treatments for couple distress when managing parents and their interactions in child treatment. A specific focus on communication and conflict management as well as mutual support strategies and dyadic coping (as prominent and modifiable risk and protective factors in relationships) will be visited and practiced based on case examples.

#### **Implications for everyday clinical practice of CBT**

Parents struggling as a couple and in their partner role as a parent (e.g. in their parental alliance) can be frequently observed in clinical practice. How to deal in session with these (dysfunctional) behaviors of parents is a challenge for every child CBT therapist. It may be very useful to learn some basic techniques how to address these issues when delivering services to children and their families

#### **References**

- Heinrichs, N., Cronrath, A.-L., Degen, M. & Snyder, D. K. (2010) The link between child emotional and behavioral problems and couple functioning. *Family Science*, 1: 3, 152-172
- Benson, L. A., McGinn, M. & Christensen, A. (2012). Common principles of couple therapy. *Behavior Therapy*, 43 (1) , 25-35.

### **Cognitive Behavior Therapy for People with Irritable Bowel Syndrome (IBS): Introducing Regul8 Manualised Treatment**

**Rona Moss-Morris, King's College London, United Kingdom**

Regul8, an eight-session tailored cognitive behavioural therapy (CBT) programme for treating IBS, was developed as a potential cost-effective way of providing help to those individuals with IBS. The therapy on which Regul8 is based has been developed over 18 years using rigorous empirical study. The cognitive behavioural treatment mechanisms included in Regul8 are based on empirical studies predicting the onset and maintenance of IBS symptoms. The CBT is therefore specific to IBS rather than CBT for a related mood disorder. The content was further developed and modified through early clinical trials (Kennedy et al., 2005; Moss-Morris et al., 2010). The effectiveness of the patient manual together with 8 hours of telephone therapist contact time has been confirmed in a large effectiveness trial (n=520) which followed patients for up to one year (Everitt et al., 2018).

The Regul8 patient manual consists of 8 chapters including: (1) Understanding your IBS and the link between symptoms, thoughts, feelings and behaviours; (2) Assessing your symptoms in relation to stress and daily routines; (3) Changing behaviours in response to symptoms, developing consistent eating, activity and exercise routines; (4) Identifying your unhelpful thought patterns; (5) Generating alternative thoughts; (6) Managing stress and sleep (7) Managing emotions; (8) Managing flare-ups and the future.

This Workshop will focus on core aspects on this manualised approach. The first will be how to engage patients with physical symptoms in a behavioural based therapy. The use of explanatory models which include physical as well as psychological explanations of symptoms will be demonstrated. Specific IBS avoidance and safety behaviours will be identified alongside methods to address these. Finally, the importance of symptom and illness cognitions and high personal expectations will be discussed.

#### **Implications for everyday clinical practice of CBT**

The workshop is most appropriate for therapist who use CBT in everyday practice. It provides an introduction to treating IBS specially using CBT. The Regul8 manual for patients and the related therapist manuals are readily available for use. We have also developed a Regul8 interactive and tailored web-based treatment. We are currently working to bring this software to the market as it offers a low intensity version of the treatment. Patients work through the website and are provided some minimal support by an experienced therapist (around 2.5 hours of therapy time).

#### **References**

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- Spence, M. J. & Moss-Morris, R. (2007). The cognitive behavioural model of irritable bowel syndrome: a prospective investigation of patients with gastroenteritis. *Gut* 56, 1066-71.

### **Culturally Adapted Cognitive Behavior Therapy (CA-CBT) for Traumatized Refugees**

**Ulrich Stangier, Shahryar Kananian & Marwan Yehya, Goethe University Frankfurt, Germany**

Approximately every second asylum seeker suffers from trauma-related disorders requiring treatment, among them Posttraumatic Stress Disorder (PTSD), depression, anxiety, and somatic symptoms. Easily accessible, low-threshold treatments are needed that take the cultural background into account. CA-CBT is a well evaluated, transdiagnostic intervention for refugees, using psychoeducation, problem-solving, meditation, and Yoga-like exercises. The programme can be delivered in individual or group setting. CA-CBT is a promising transdiagnostic treatment, serving as an initial low-threshold therapy in a stepped care approach which may be followed by trauma-focused interventions such as Narrative Exposure Therapy and Cognitive Processing Therapy.

The workshop presents a comprehensive approach that focuses on the modification of dysfunctional emotion regulation processes (e.g., intrusive memories, rumination, grief, anxiety, anger) and dysfunctional behaviors (e.g., self-harming or violent behavior). The workshop offers: a) a short introduction to diagnostic features of traumatized refugees, b) a transdiagnostic model to understand mental health problems, and c) specific cognitive, emotion-focused and body-focused interventions depending on patients' individual need. Special focus is placed on the assessment and implementation of culture-specific aspects in refugees from Middle East.

#### **References**

- Hinton D., & Good B. (2016). *Culture and PTSD: Trauma in Global and Historical Perspective*. University of Pennsylvania Press.
- Schauer, M., Neuner, F., Elbert, T. (2011). *Narrative Exposure Therapy (NET). A Short-Term Intervention for Traumatic Stress Disorders* (2. Ed.). Cambridge/ Göttingen: Hogrefe
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- Kaysen, D., Lindgren, K., Zangana, G. A. S., Murray, L., Bass, J., & Bolton, P. (2013). Adaptation of cognitive processing therapy for treatment of torture victims: Experience in Kurdistan, Iraq. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5(2), 184-192.

### **A Cognitive Behavioural Systems Approach to Sexual and Couple Problems**

**Mehmet Sungur, Marmara University, Turkey**

Did you recently finish your own cognitive behaviour therapy (CBT) training and discover you were One of every two to three marriages end up in divorce and many other negative consequences emerge following an unsuccessful marriage. This presentation will start by discussing the reasons why people insist to marry despite the high (45-50%) divorce rate and some catastrophic outcomes following unhappy marriages and divorce. Surprisingly, despite the trauma of divorce, the majority will choose to repeat the experience as the breakdown is seen as the other partner's fault. The presentation will carry on by discussing whether the problem in a failing relationship is really the problematic partner and what makes the distinction between happy (successful) and unhappy marriages.

In cognitive behavioural systems approach the therapist attempts to reframe the problem as a result of interaction between the partners rather than arising from one of the partners. This is to shift the couple's thinking from the illness model to the interactional model. In this approach, the focus of therapist attention is the relationship rather than the individual and thus communication training, reciprocal negotiation and mutual problem solving become very important components of treatment. The workshop will progress by explaining how the therapist may at one moment be working behaviourally trying to help the couple communicate better and solve their problem directly or working at a cognitive level to teach couple to identify automatic thoughts, distorted thinking and how to modify the cognitive processes that lead partners to exhibit certain repetitive patterns of behaviour. It will also discuss the advantages of working on a systems level to explain their lack of co-operation and progress and provide meaning to what seems meaningless to couples and therapists. Different types of couple problems demand different therapeutic skills and responses. Whatever treatment approach is used, a good assessment and formulation is of great importance for a successful intervention, particularly in those couples presenting with relationship and sexual problems. Making conceptualizations, setting targets and homework assignments with the couple will also be discussed.

Some therapy failures with relationship problems may result from a mismatch between the intervention applied and the specific needs of the couple. This presentation will try to help simplify the process of making choices about which intervention may be most effective with which couple and how therapists may select interventions which are appropriate to the different levels of complexity and rigidity in a couples interaction by using an innovative system. Challenges and critiques to the old and new DSM criteria will be made and basic therapeutic interventions to sexual problems will be discussed.

#### **Implications for everyday clinical practice of CBT**

Sexual and relationship problems have negative impact on majority of couples in daily life. An increasing number of couples come forward to seek help for couple and sexual problems. This workshop will help improve therapists competence to handle a variety of couple-relationship-sexual problems.

#### **References**

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### **Somatic Symptoms in Psychopathology: Understanding the Mechanisms and Optimizing Treatment**

**Omer Van den Bergh, University of Leuven, Belgium & Michael Witthöft, University of Mainz, Germany**

Somatic symptoms (e.g., pain, fatigue, dizziness) are highly prevalent in psychopathology. They are intricately related to depressive and anxiety disorders, they occur in trauma- and stress-related disorders and they are the core of somatic symptom and related disorders. In addition, a substantial number of patients in primary and secondary medical care consults for somatic symptoms that cannot be linked to bodily dysfunction and are considered nonspecific, functional and/or stress-related. In psychotherapy, it is often not clear whether and how such symptoms should be targeted. Commonly, such symptoms are considered epiphenomena of a larger cognitive-emotional problem that is focused upon.

In this workshop, we will discuss critical evidence prompting a new model to understand the (often loose) relationship between somatic symptoms and bodily dysfunction that is based on a predictive processing view on the brain. In this view, experienced symptoms emerge as a result of two counterflowing and continuously interacting streams of information. One represents prior predictions of the brain and the other represents prediction errors related to somatic input. Depending on prior expectations (and their precision), symptoms may be more or less closely related to somatic input. From this view, we derive clinical implications for a comprehensive assessment and theory-based and mechanism-oriented treatment. In particular, we will discuss how stress-related physiology and nocebo-mechanisms dynamically interact to produce vicious circles and self-fulfilling prophecies maintaining somatic symptoms on the longer term. We will discuss and demonstrate new ways to counter such mechanisms.

#### **Implications for everyday clinical practice of CBT**

The workshop aims at developing a transdiagnostic understanding on how somatic symptoms come about in psychopathology. This implies understanding the role of stress-related physiology in interaction with central processes in the brain that moderate the strength of the relationship between the symptoms and somatic input, as well as developing intervention techniques that counteract the symptoms. Because somatic symptoms that are little or not related to physiological dysfunction are highly prevalent in several diagnostic categories in psychopathology as well as in medical consultations in primary and secondary care, the workshop should benefit the practitioner in a variety of clinical settings.

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### **Cognitive Behaviour Therapy for Body Dysmorphic Disorder**

**David Veale, King's College London and South London and Maudsley NHS Trust, United Kingdom**

Body Dysmorphic Disorder (BDD) is defined as a preoccupation with a perceived defect in one's appearance, which is not noticeable to others. The preoccupation is associated with a distorted "felt" impression with many "safety seeking" behaviours such as mirror gazing, skin-picking, ruminating or constant comparing of one's perceived defect to others. People with BDD often use strategies to camouflage and avoid situations and activities. They may have a poor quality of life, are socially isolated and are at high risk of committing suicide. Cognitive behaviour therapy and SSRI medications are recommended for treating BDD. CBT targets the various processes that maintain the preoccupation and distress.

#### **Implications for everyday clinical practice of CBT**

CBT is the only evidence based psychological therapy for BDD and may be helpful for treating other body image problems with body shame (e.g. eating disorders, disfigurement).

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## PRE-CONGRESS WORKSHOPS: GERMAN (HALF DAY ONLY)

### Cognitive Behavioral Analysis System of Psychotherapy (CBASP): Wo KVT, Psychoanalyse, und interpersonelle Ansätze sich kreuzen

**Eva-Lotta Brakemeier & Isabel Schamong, Philipps-Universität Marburg, Deutschland**

Das Cognitive Behavioral Analysis System of Psychotherapy (CBASP) wurde von McCullough störungsspezifisch für chronisch bzw. persistierend depressive PatientInnen entwickelt. In CBASP werden *schulenübergreifend* behaviorale, kognitive, psychodynamische und interpersonelle Strategien integriert.

Im Workshop wird zunächst die spezifische Psychopathologie der chronischen Depression herausgearbeitet, die durch frühe Misshandlungserfahrungen, eine Wahrnehmungsentkopplung von der Umwelt sowie interpersonelle Probleme gekennzeichnet ist. Danach wird praxisnah unterstützt durch Videobeispiele, Demonstrationen und Übungen gezeigt, wie die spezifischen CBASP-Strategien (Liste prägender Bezugspersonen, Übertragungshypothese, Interpersonelle Diskriminationsübung, Kiesler Kreis, Situationsanalyse, Diszipliniertes Persönliches Einlassen) direkt an dieser Psychopathologie ansetzen. Abschließend wird die aktuelle Studienlage hinsichtlich der Wirksamkeit und der Grenzen des Ansatzes vorgestellt, wobei darauf basierende Weiterentwicklungen wie *CBASP@OldAge* und *CBASPPersonalized* zur Diskussion gestellt werden.

Insbesondere soll im Workshop immer wieder diskutiert werden, ob und wie sich die KVT, Psychoanalyse und interpersonelle Ansätze im Rahmen der CBASP-Therapie kreuzen

#### Bedeutung für die klinische Praxis der KVT

CBASP lässt sich am besten als eine interpersonelle Lerntherapie verstehen, wodurch die Nähe zur KVT deutlich wird. Im Vergleich zur traditionellen KVT werden KVT-Therapeuten weitere Strategien vorgestellt, welche insbesondere hilfreich erscheinen zum Umgang mit interaktionell schwierigen Situationen in der Psychotherapie (wie z.B. Umgang mit wütenden, suizidalen, vermeidenden, reaktanten, verliebten Patienten).

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### Mitgefühl in der Paartherapie: Einführung und psychobiologische Auswirkungen für Partnerschaft und Gesundheit

**Beate Ditzen & Corina Aguilar-Raab, Universitätsklinikum Heidelberg, Deutschland**

Partnerschaft und Paarinteraktionen haben einen bedeutenden Einfluss auf die psychische und körperliche Gesundheit und sogar auf das Überleben des Einzelnen. Dieser Einfluss wird über psychobiologische – u.a. über hormonelle – Mechanismen vermittelt. Im Workshop wird der Frage nachgegangen, wie Hormone in konkreten Paarinteraktionen wirken und umgekehrt – ob und wie das Paarverhalten einen Einfluss auf Hormone hat. Aus diesen Daten der Grundlagenforschung werden Implikationen und konkrete Methoden für die Psychotherapie abgeleitet. Am Beispiel einer Achtsamkeits- und Mitgefühlsbasierten Gruppenintervention für Paare wird dies anschaulich beleuchtet.

#### Bedeutung für die klinische Praxis der KVT

Der Workshop soll die Bedeutung des Paarkontextes für psychische Störungen und deren Behandlungen herausarbeiten unter besonderer Berücksichtigung von Variablen, die die Interaktionsfähigkeit betreffen. Hierzu gehören Achtsamkeit und Mitgefühl als Qualitäten einer aktiven und erlernbaren Beziehungsgestaltung, die sich nicht nur auf die Psychopathologie sondern auch auf die physische Gesundheit Einzelner bezieht.

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### Offen und Engagiert: Der Beitrag von ACT

**Andrew Gloster, Universität Basel, Schweiz**

Die Akzeptanz- und Commitment-Therapie (ACT) ist eine neuere Entwicklung innerhalb der Verhaltenstherapie, deren Ziel die Verbesserung „psychischer Flexibilität“ ist. Viele Studien zeigen, dass psychisches Leid entsteht, wenn Menschen versuchen, ihr inneres Erleben zu vermeiden (experiential avoidance). Denn Erlebnisvermeidung führt oft zu rigidem und unflexiblem Verhalten und damit zur Beeinträchtigung problem- und zielbezogenen Handelns. ACT-Klienten lernen, dass Erlebnisvermeidung keine Lösung, sondern das eigentliche Problem ist. Sie lernen zu unterscheiden, was sie kontrollieren und was sie nicht kontrollieren können. Durch Praktizieren von Achtsamkeit und Akzeptanz gelangen sie zu größerer Flexibilität im Umgang mit aversiven Körperempfindungen, Gedanken und Gefühlen. Sie wählen und formulieren wieder persönlich wichtige Lebensziele, was sie im Kampf gegen ihr eigenes Erleben oft lange vernachlässigt haben, und lernen, diese trotz emotionaler und kognitiver Barrieren wieder in Handlungen umzusetzen, um so wieder ein wert- und sinn erfülltes Leben zu führen.

#### Bedeutung für die klinische Praxis der KVT

Das ACT Modell wird flexibel angewendet. Teilnehmer lernen wie „Offenheit“ und „Engagement“ dabei eingesetzt werden können. Dabei werden Symptome nicht als Barrieren erlebt.

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## **Borderline und Mutter sein – wie kann das gelingen? Ein Gruppentraining für Mütter mit Borderline-Störung**

**Babette Renneberg und Charlotte Rosenbach, Freie Universität Berlin, Deutschland**

Schwierigkeiten in der Emotionsregulation und eine instabile Beziehungsgestaltung sind Hauptmerkmale der Borderline Persönlichkeitsstörung (BPS). Permanente Krisen und extreme Schwankungen in der Stimmung, dem Selbstwert und der Identität gehören zum Alltag der Betroffenen. In Stresssituationen reagieren sie häufig impulsiv und selbstschädigend, zeigen missbräuchlichen Substanzkonsum oder selbstverletzendes Verhalten.

Mütter mit einer BPS sind daher bei der Erziehung ihrer Kinder mit besonderen Herausforderungen konfrontiert. Kinder von Müttern mit BPS haben ein erhöhtes Risiko für eine maladaptive Entwicklung. Um den Teufelskreis der Weitergabe von Problemen der Emotionsregulation zu durchbrechen und Mütter mit BPS in ihrer Erziehungsaufgabe zu unterstützen, wurde ein Gruppentraining auf Basis von kognitiv-verhaltenstherapeutischen Techniken und Ansätzen der Dialektisch-behavioralen Therapie (DBT) konzipiert. Zentrales Anliegen ist es, positive Interaktionsmuster und Erziehungskompetenzen zu stärken und somit eine gesunde Entwicklung der Kinder zu fördern. Im Workshop wird das konkrete praktische Vorgehen demonstriert (Video) und in Rollenspielen geübt.

### **Bedeutung für die klinische Praxis der KVT**

Bei der Behandlung der BPS (so wie auch anderer psychischer Störungen) stehen vorwiegend die Probleme der Patient\*innen selbst im Fokus. Meist geht es zunächst um die Reduktion selbstverletzenden Verhaltens, die Förderung von Emotionsregulationsstrategien und einer adäquaten Beziehungsgestaltung. Auch wenn Einzeltherapeut\*innen um die Kinder der Patient\*innen wissen, werden diese bzw. die Schwierigkeiten mit der Mutterrolle selten thematisiert.

Der Workshop soll zum einen auf die Notwendigkeit, die Kinder vor Müttern mit BPS „mitzudenken“, hinweisen. Zum anderen sollen konkrete Interventionsstrategien für die Praxis vermittelt werden. Das Training „Borderline und Mutter sein“ ist das erste störungsspezifische Manual für die Förderung von Erziehungskompetenzen von Müttern mit BPS.

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## **Behandlung von Trennungsängsten und Phobien im Kindesalter**

**Silvia Schneider, Ruhr-Universität Bochum, Deutschland**

Trennungsängste und Spezifische Phobien gehören zu den frühesten Angststörungen im Kindesalter und sie sind zugleich Schrittmacher für Angststörung, Depressionen und Substanzmissbrauch/-abhängigkeit im Erwachsenenalter. Die frühe Behandlung dieser Störungsbilder ist somit dringend geraten, um langfristig ungünstige, schwere Verläufe zu verhindern. Im Workshop wird ein speziell auf diese Ängste zugeschnittenes Behandlungsprogramm das „Trennungsangstprogramm Für Familien (TAFF)“ vorgestellt. Es handelt sich hierbei um einen familienbasierten Behandlungsansatz bestehend aus 4 Sitzungen mit dem Kind, 4 Sitzungen mit den Eltern und 8 Sitzungen mit Eltern und Kind gemeinsam. Inhalte des Therapieprogramms sind Psychoedukation, die Bearbeitung dysfunktionaler Gedanken der Eltern und des Kindes, Förderung der Erziehungskompetenzen der Eltern, Autonomieförderung des Kindes sowie hochfrequente Konfrontationsübungen in vivo. Die Effektivität bis zu einem Jahr nach Abschluss des TAFF-Programms konnte in zwei randomisierten kontrollierten Studien bei Kindern im Alter zwischen 5 und 14 Jahren nachgewiesen werden. Es zeigte sich, dass der explizite Einbezug der Eltern in die Behandlung des Kindes vergleichbar gute Behandlungsergebnisse erbringt wie Behandlungsansätze, bei denen das Kind alleine behandelt wird. Diese Befunde decken sich mit Studienergebnisse anderer Forschergruppen aus Europa, USA und Australien. Ein aktuelles durch das Bundesministerium für Bildung und Forschung gefördertes Projekt versucht in einer groß angelegten multizentrischen Studie diese Befunde genauer zu untersuchen und differentielle Effekte für einen familienbezogenen vs. Kind-alleine Behandlungsansatz zu analysieren ([www.kiba-studie.de](http://www.kiba-studie.de)).

### **Bedeutung für die klinische Praxis der KVT**

Angststörungen im Kindesalter sind Schrittmacher für Psychopathologie des Erwachsenenalters und keine zeitbegrenzten flüchtigen Entwicklungsexzesse. Die Früherkennung und Behandlung ist daher dringend geboten. Wie auch im Erwachsenenalter ist die Konfrontation in vivo der zentrale Wirkmechanismus für die Behandlung. Gleichzeitig scheint jedoch gerade für das Kindesalter eine gewisse Zurückhaltung bei der Anwendung dieser effektiven Methode vorzuliegen. Der Kurs möchte u.a. auf aktuelle Neuentwicklung in der Konfrontation von Ängsten im Kindesalter eingehen und Mythen und Ängste in der praktischen Umsetzung dieses Behandlungsansatzes diskutieren. Fallbezogen wird die erfolgreiche und altersadäquate Umsetzung von hochfrequenter Konfrontation bei Kindern (mit/ohne Elterneinbezug) eingeübt.

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## **Cognitive Restructuring and Imagery Modification: Eine neue imaginationsbasierte Therapie zur Behandlung der Posttraumatischen Belastungsstörung**

**Regina Steil & Meike Müller-Engelmann, Goethe-Universität Frankfurt, Deutschland**

Cognitive Restructuring and Imagery Modification (CRIM) ist eine neue Kurzintervention, die zunächst entwickelt wurde, um das Gefühl der Beschmutztheit bei Opfern sexualisierter Gewalt zu reduzieren. Die Intervention beginnt mit einer kognitiven Umstrukturierung. Hierbei wird berechnet, wie oft sich die Hautzellen der Patientin seit dem letzten Kontakt mit dem Täter erneuert haben. Da das rationale Wissen alleine oft nicht ausreicht, um die Gefühle der Patientin wirkungsvoll zu verändern (Steil, Jung & Stangier, 2011), greift der zweite Teil der Intervention auf imaginative Techniken zurück, die eine größere Nähe zu realen Erfahrungen aufweisen als kognitive Interventionen alleine. In einer randomisiert kontrollierten Studie erwies sich CRIM nicht nur als wirksam zur Verringerung des Gefühls der Beschmutztheit, sondern war auch mit einer bedeutsamen Reduktion der Symptome der Posttraumatischen Belastungsstörung (PTBS) verbunden (Jung & Steil, 2013). Die Intervention wurde deshalb in einem zweiten Schritt erweitert, um auch andere belastende Selbstbilder bei PTBS-Patienten verändern zu können (Müller-Engelmann & Steil, 2016). Beispiele hierfür sind der Eindruck, der Welt nach einem Überfall hilflos ausgeliefert zu sein oder sich nach einer sexuellen Gewalterfahrung wertlos zu fühlen. In einer Pilotstudie zeigten sich dabei starke Effekte auf die Symptome der PTBS (Cohen's  $d = 2.53$  in der Clinician Administered PTSD Scale).

Im Verlauf des Workshops soll CRIM mittels Videobeispielen zunächst vorgestellt werden. Anschließend erhalten die Teilnehmer die Gelegenheit, die Interventionen im Rahmen von kurzen Rollenspielen selbst auszuprobieren.

### **Bedeutung für die klinische Praxis der KVT**

Bei CRIM handelt es sich um eine Kurzintervention, die sowohl mit anderen etablierten und evidenzbasierten Interventionen zur Behandlung der PTBS, z.B. Expositionsbildung und kognitive Therapie, kombiniert werden kann als auch als alleinige Intervention eingesetzt werden kann, wenn wenig Zeit für eine Behandlung zur Verfügung steht.

Ein weiterer Anwendungsbereich besteht darin, die Intervention zu nutzen, um zu Beginn einer längeren Behandlung schnelle erste Erfolge zu erzielen und hierdurch die Behandlungsmotivation vor allem stark betroffener Patientinnen und Patienten zu erhöhen.

#### **Literatur**

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## IN-CONGRESS WORKSHOPS (in the following order: English, German)

### IN-CONGRESS WORKSHOPS: ENGLISH

#### **Involving Parents in the Treatment of Young Adults with Anxiety Disorders**

**Anne Marie Albano & Lauren Hoffman, Columbia University, USA**

It is widely known that 22% of emerging adults (EAs; roughly ages 18 to 28) suffer with anxiety disorders, with age of onset occurring before age 15 years. Despite comorbidity with depression and substance use disorders, only 16% to 20% of EAs seek mental health treatment. EAs with anxiety more often fail to complete school, attain employment, and form meaningful romantic or social relationships, resulting long term dependence on the family. Parental overprotection and over involvement, including parental modeling and reinforcement of anxious and avoidant behavior, are associated with the maintenance of anxiety disorders and depression in youth. Given that gold-standard, patient-focused CBT for anxiety in youth is limited in maintaining long-term benefit and protection from relapse, and that persistent anxiety and/or relapse sets up continual reliance on the family, the LEAP model of CBT was developed to address the EA-parent interaction. The goal of LEAP is to decrease EA anxiety, improve overall independent functioning, and to address parental factors (parents' history of anxiety, parenting beliefs, overprotective and overcontrol behaviors) to improve overall outcomes of treatment.

This half-day workshop will focus exclusively on the modules for inclusion of parents in the LEAP model of treatment for emerging adults with anxiety and will consist of:

- (i) Review of the tasks and goals of adolescence and emerging adulthood, and the interaction of development and anxiety, to focus on an understanding of these stages to assist youth and parents in the psychoeducation phase of treatment.
- (ii) Assisting the parents and youth in identifying patterns of overprotection that occurred through time, to address and challenge the beliefs and attitudes of the parents and youth that result in the maintenance of these patterns. Guided imagery, mindfulness, a structured developmental assessment, and cognitive restructuring tasks are utilized in these modules.
- (iii) Developing and implementing "transition plans" for parents to let go of overprotecting behaviors, youth to accept responsibility and consequences, and parents to move into healthy advisor roles, accomplished through perspective taking, exposure exercises, family-based problem solving.

#### **Key learning objectives**

Participants will acquire the following skills:

1. Use of a developmental assessment method to conduct a family session to pinpoint developmental milestones that are unmet by the youth and taken over by parents, and then develop a transition plan for transferring responsibility to the youth.
2. Use cognitive restructuring, perspective taking, and family communication to uncover parent and youth beliefs about risk, failure, and related feared outcomes.
3. Training in the use of modeling and role playing to address parents' and youth "having the conversation" and developing a behavioral contract about expectations, follow through, and consequences for emerging adults who are fully dependent on the parents.

#### **Implications for everyday clinical practice of CBT**

Clinicians are often hesitant to incorporate parents into treatments for young adults, which leaves an incomplete understanding of the contextual factors involved in ongoing problematic anxiety, as well as unchanged parent-youth adult patterns of relating to one another. The aim is for participants to understand family interactions concerning anxiety, everyday normative developmental tasks, and expectations for functioning of the youth and parents, to bring these issues to light through specific exercises, and then apply intervention methods to change these family patterns and facilitate long term response. If young adults improve in their basic functioning, this decreases conflict and increases self-efficacy overall.

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#### **Schema Therapy**

**Arnoud Arntz, University of Amsterdam, the Netherlands**

Schema therapy is an increasingly popular treatment for personality disorders and other chronic conditions. Studies show high treatment retention rates and good effects. Many clinicians and patients like the approach as schema therapy gives them tools to understand complex problems and techniques to address a wide range of issues. This workshop will discuss the schema mode model as it can be applied to a range of disorders, the use of specific techniques (notably experiential techniques), as well the specific therapeutic relationship used in schema therapy. Some techniques will be shown (video) or demonstrated and if time suffices, participants will be invited to practice techniques in role plays.

#### **Key learning objectives**

1. To understand the schema mode model of complex forms of chronic (personality-related) psychopathology and how to apply it to a specific case.
2. To understand the specific therapeutic relationship formed in schema therapy and to be able to apply the basics in clinical practice.
3. To understand the basic experiential and relationship techniques and to apply them in their basic form.

#### **Implications for everyday clinical practice of CBT**

Participants will be able to better understand complex representations of various forms of psychopathology as encountered in their clinical practice, by applying the schema mode model. Moreover, participants will understand how patients can flip from one schema mode to another, how each schema mode needs its own therapeutic approach, and what basic techniques are to address each mode. They will be able to apply basic ST techniques in their clinical practice.

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## Cognitive-Behavioral Couple-Based Treatment of Depression

**Donald Baucom, University of North Carolina at Chapel Hill, USA, & Melanie Fischer, Heidelberg University Hospital, Germany**

Cognitive-behavioral couple therapy (CBCT) is a highly efficacious approach for assisting couples experiencing relationship distress, and individual cognitive behavioral therapy (CBT) is highly efficacious for treating depression. However, these issues are not separate as relationship distress and depression are highly comorbid: In 50% of couples seeking couple therapy either one or both partners experience depressed mood. Likewise, approximately 50% of depressed individuals who have a partner are also relationally distressed. Treatment research strongly suggests that targeting individual depression in its interpersonal context can facilitate more effective treatment. Therefore, this workshop will focus on how to address both depression and relationship distress while working with the couple conjointly. The workshop demonstrates how to integrate (a) efficacious intervention principles from individual therapy into a couple treatment format, along with (b) well established CBCT interventions for treating relationship distress. Participants will be taught three different approaches to treating depression in a couple context and how these three approaches can be combined to provide optimal intervention for these complex cases. The workshop will include videotapes and live role plays demonstrating these techniques. Clear principles for developing treatment plans for specific couples will be presented, with a discussion of how therapist can apply similar principles to other types of psychopathology as well, in addition to depression.

### Key learning objectives

1. Learn the difference between couple therapy and couple-based interventions for psychopathology
2. Learn principles for deciding whether to treat depression in a couple versus individual treatment format
3. Understand how to integrate individual CBT principles into a couple treatment for depression
4. Understand the main interventions used in couple-based CBT for depression and their sequencing to focus on relationship distress versus depression
5. Discuss applications to other forms of psychopathology

### Implications for everyday clinical practice of CBT

The implications for the everyday practice of CBT are wide ranging, both for therapists who primarily work with individuals and those who work with couples. Individual therapists who use CBT to treat depression frequently encounter clients who also experience relationship distress (ca. 50% of depressed individuals in relationships). Likewise, couple therapists who treat relationship distress frequently encounter couples in which one or both partners experience clinically significant levels of depressed mood (ca. 50% of couples presenting for couple therapy). Importantly, research has shown that individual therapy for depression is less effective if relationship distress is also present; couple-based interventions can mitigate this issue. Further, relationship distress is a risk factor for depression (or relapse), and depression increases the likelihood of future relationship distress. However, few clinicians are specifically trained to incorporate partners into the treatment of depression, or to address depression in a couple context in a targeted way. Thus, utilizing couple-based, cognitive-behavioral interventions represents a paradigm shift in mental health care for adults.

This paradigm shift has begun to take place in England, demonstrating that such efforts are feasible. The workshop co-leaders have been training clinicians in the National Health Service in England in cognitive-behavioral couple therapy as part of the Improving Access to Psychological Treatments (IAPT) initiative. Initial effectiveness findings suggest that these efforts have been quite successful (Baucom et al., 2018).

The proposed paradigm shift extends beyond the treatment of depression in a couple context; the intervention principles that will be taught in the current workshop are applicable to other disorders as well, including anxiety disorders, PTSD, OCD, and eating disorders (Fischer et al., 2018).

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## A Practical Guide to Adapting Cognitive and Behavioural Therapies for Muslim Service Users

**Andrew Beck, ELCAS, University of Manchester, United Kingdom**

The past 10 years have seen unprecedented demographic changes in many European countries as refugee and migrant groups from a wide range of predominantly Muslim countries become citizens. Many of these new arrivals have experienced considerable trauma and loss both prior to their migration and during their journeys. There is a growing body of research evidence that suggests the mental health needs of these communities are likely to be high as a result of these difficult experiences and that these needs are likely to be unmet. In addition many European countries have existing and well established Muslim communities and there is a compelling body of research demonstrating that even 3rd and 4th generation members of these communities are not receiving the same quality of evidence based mental health services as white majority communities.

Research suggests that ethnic and religious minority service users have worse outcomes in CBT and other therapies but that developing therapist competence in cross-cultural assessment and treatment can lead to improvements in therapy outcomes.

### Key learning objectives

Workshop participants will be able to:

1. Understand the nature of the Muslim diaspora across Europe and North America and appreciate the diversity of traditions and practices within that community.

2. Understand the differences between religious and cultural practices in these communities and how they interact.
3. Be able to confidently assess presenting problems and ask about cultural, religious and family contexts to gain a better understanding of how these fit into the presenting problems.
4. Be confident in asking service users about their experiences of racism and islamophobia and to be able to incorporate these experiences into formulations.
5. Be confident in understanding the limits of current disorder specific models in cross-cultural contexts.
6. Know when and how to use routine outcome measures to inform assessment and progress monitoring in a cross-cultural setting.
7. Be able to use Islamic religious values as a strength and asset to enhance therapy engagement and outcomes.
8. To understand the important role of families in the lives of many Muslim service users and how to use these as an asset in treatment.
9. Understand the role of religious practices and belief in Djinn, supernatural forces, magic and curses and how many Muslim service users are likely to explain mental health difficulties in these terms and have already sought spiritual or magical treatment for them prior to using mental health services.
10. Understand how to assess whether these spiritual treatments can be compatible with CBT and how to manage when they are not.
11. Reflect on their own beliefs and consider the degree to which these may influence the provision of CBT to this population.

#### **Implications for everyday clinical practice of CBT**

This framework for adaptation will enable therapists to adapt the core principles of CBT for service users with many different ethnic and Islamic identities.

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#### **A Cognitive-Behavioral Approach to Weight Loss and Maintenance**

##### **Judith S. Beck, Beck Institute for Cognitive Behavior Therapy, USA**

The prevalence of overweight and obesity is an increasing national and international public health crisis. A growing body of research demonstrates that cognitive behavioral techniques are an important part of a weight loss and maintenance program, in addition to exercise and changes in eating (see, for example, Stahre & Hallstrom, 2005; Shaw et al, 2005; Werrij et al, 2009; Spahn et al, 2010; Cooper et al, 2010). An important element that is often underemphasized in weight loss programs is the role of dysfunctional cognitions. Several studies (Stotland & Zuroff, 1990; Osberg et al, 2008) show that many dieters hold a number of unhelpful beliefs about food (e.g. "Food is a source of comfort,") and about dieting in general (e.g. "Weight is controlled by genetics.") While most people can change their eating behavior in the short-run, they generally revert back to old eating habits unless they make lasting changes in their thinking by learning how to identify and respond to dysfunctional beliefs.

#### **Key learning objectives**

Participants in this workshop will learn how to:

1. Teach dieters specific "predieting" cognitive and behavioral skills.
2. List techniques to deal with hunger, craving and emotional eating.
3. Use strategies to motivate the reluctant or inconsistent client.
4. Facilitate long-lasting changes in eating.

#### **Implications for everyday clinical practice of CBT**

This interactive workshop presents a step-by-step approach to teach dieters specific behavioral skills and help them respond to negative thoughts that interfere with implementing these skills every day. Participants will learn how to engage the client and how to solve common practical problems, such as lack of time, family difficulties, traveling and celebrations. They will learn how to teach clients to develop realistic expectations, motivate themselves daily, reduce their fear of (and tolerate) hunger, manage cravings, use alternate strategies to cope with negative emotion, and get back on track immediately when they make a mistake. In addition, participants will learn how to help clients deal with feelings of disappointment, discouragement, deprivation, apathy, or rebelliousness.

Techniques will be presented to help dieters respond to dysfunctional beliefs related to food, eating, self-discipline, and unfairness—and other cognitions that undermine their motivation and sense of self-efficacy. Acceptance techniques, for example, can help dieters come to grips with the necessity of making long-lasting changes and maintaining a realistic, not an "ideal" weight that they can sustain for their lifetime.

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#### **Exposure Therapy Applied to Eating Disorders: Terrified Patients and Anxious Clinicians**

##### **Carolyn Becker, Trinity University, USA, & Glenn Waller, University of Sheffield, United Kingdom**

Exposure therapy is a critical component of evidence-based treatment for both eating disorders (EDs) and anxiety-based disorders (AbD: including PTSD and OCD), which often co-occur. Successful treatment of EDs sometimes yields remission of comorbid anxiety, but not always. As such, ED therapists need to be prepared to treat anxiety directly. Exposure is widely recognized to be highly effective at reducing

anxiety, be it associated with EDs, AbDs, or both. However, remarkably few clinicians use exposure. Exposure can be delivered in everyday practice, but is often delivered in ways that omit key elements, reducing effectiveness. One common reason for this omission is clinicians' fear of distressing patients. Another concern is that many clinicians employ outdated methods in delivering exposure, reducing its potential impact. This workshop will detail the rationale for exposure in ED and AbD treatment, how it works, and why it requires both patients and therapists tolerating their own anxiety and overcoming safety and avoidance behaviours. Case examples will be used throughout the workshop.

#### **Key learning objectives**

At the end of this session the attendee will be able to:

1. Describe key steps in implementing exposure, including recent recommendations
2. Explain what patients learn during exposure
3. Identify both patient-based and clinician-based safety and avoidance behaviors, and how these interact

#### **Implications for everyday clinical practice of CBT**

The aim of this workshop is to increase eating disorder clinicians' every day use of exposure in the treatment of eating disorders and co-occurring anxiety-based disorders. Given that exposure is both a highly effective CBT technique and underutilized, this should increase the everyday effectiveness of CBT for eating disorders and co-occurring anxiety.

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### **From Critical Self to Compassionate Self: A Self-Practice/Self-Reflection Workshop for Therapists**

#### **James Bennett-Levy, University of Sydney, Australia**

Contemporary CBT now incorporates ideas from such diverse sources such as neuroscience, evolutionary theory, cognitive science, behavioural science, meditation traditions, and clinical practice. Furthermore, the training of CBT therapists is starting to evolve from reliance on conventional training methods such as reading, lectures/workshops, modelling, role-play; there is increasing recognition that experiential methods of learning 'from the inside out' such as self-practice/self-reflection (SP/SR) and mindfulness and compassion programs may enhance and deepen those core therapy skills which make a difference to client outcomes.

This workshop has three primary aims:

1. to introduce participants to ideas drawn from cognitive science about how clients can shift from one 'way of being' (e.g. Critical Self) to another (e.g. Compassionate Self)
2. To experience strategies drawn from compassion focused therapy, CBT and positive psychology designed to create a shift in ways of being from Critical Self to Compassionate Self
3. To frame these experiences within the SP/SR paradigm, so that participants not only experience the strategies for themselves, but "cross the reflective bridge" to consider the implications for their work with self-critical clients.

#### **Key learning objectives**

Participants will

1. Understand the cognitive science foundations of the Ways of Being model (Bennett-Levy et al., 2015)
2. Acquire skills derived from compassion focused therapy, CBT and positive psychology to create new Ways of Being - in this case from Critical Self to Compassionate Self.
3. Experience the value of an SP/SR approach to professional and personal development. This may lead to new understandings about how best to acquire therapy skills.
4. Deepen understanding of the importance of reflection in embedding new therapy skills

#### **Implications for everyday clinical practice of CBT**

CBT advances by creating more effective therapies and more effective therapists. The aim of this workshop is to do both. Underpinning many mental health problems are high levels of self-criticism and low levels of self-compassion. This workshop is aimed at building therapists' range of compassion-based strategies to address a key transdiagnostic vulnerability factor (self-criticism) underlying poor mental health. A further aim is to provide an experience of SP/SR which for some therapists may provide new avenues for developing and learning new skills.

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### **Mindful Parenting in Mental Health Care**

#### **Susan Bögels, University of Amsterdam, the Netherlands**

Despite its inherent joys, the challenges of parenting can produce considerable stress. These challenges multiply- and the quality of parenting may suffer- when a parent or child has mental health issues, or when parents are in conflict. Even under optimal circumstances, the constant changes as children develop can tax parents' inner resources, often undoing the best intentions and parenting courses. Mindful Parenting (Bögels & Restifo, 2014) is an eight-week structured mindfulness training program, based on MBSR, MBCT and MSC. It is designed for use in mental health care contexts, for parents who have mental health problems that interfere with parenting, or whose children have mental health problems. The program's eight sessions focus on mindfulness-oriented skills for parents, such as parenting with beginner's mind, awareness and acceptance of strong emotions in parent and child, mindfully responding to (as opposed to reacting to) parenting stress, fostering compassion., and taking care of ones inner child The program is now also adapted for other settings such as prevention. In this workshop the theoretic underpinnings of Mindful Parenting, the rationale, and the build-up of the program, are outlined, and demonstrated with several imaginary and meditation practices that participants can experience. Video-examples are also shown. The effects of Mindful

Parenting in a mental health care context on outcomes such as parental and child psychopathology, parenting stress, and parenting, are presented, and mediating mechanisms, such as general mindfulness, mindful parenting, and parental experiential avoidance, are discussed. Furthermore, results of Mindful Parenting in a preventive context are reviewed.

#### **Key learning objectives**

1. Insight in theories, working mechanisms and effects of mindful parenting
2. Overview of the 8-week mindful parenting program
3. Experiencing the key practices of mindful parenting
4. Assessment of parent and child effects

#### **Implications for everyday clinical practice of CBT**

Mindful parenting can be used while guiding parents with children with mental disorders, and parents with mental disorders that interfere with parenting, but is also relevant in somatic settings (for example parents of children with chronic somatic conditions), and for any parent who experiences stress or wants to improve the quality of their parenting, and as a general attitude for professionals working with clients, as we “parent” our clients!

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Bögels, S.M. (2018). *Eltersein - Die Ganze Katastrophe: Achtsam mit Kindern wachsen*. Freiburg: Arbor Verlag (This is a selfhelp book for parents, also available in Dutch and soon in English)

### **Repairing Attachment-Related Ruptures as a Tool to Treat Depressed and Suicidal Children and Adolescents**

#### **Guy Bosmans, KU Leuven, Belgium**

Although the effectivity of CBT for children and adolescents has been robustly proven over many RCT trials, the effect sizes of CBT in these populations leave often much room for improvement. Accumulating research shows that CBT treatment effects are dependent on the quality of patients' attachment development. Treatment is significantly more effective if patients are securely attached or can trust in the availability of support by primary caregivers.

Attachment has long been critically evaluated by CBT therapists because of the vagueness of its core concepts, because of the difficulty to capture attachment in treatable behavior, and because of the widespread assumption that attachment develops early in life and remains largely unaltered. However, recent research has put scientific steps forwards regarding these critiques. First, it has been shown that attachment needs to be considered a cognitive schema or script about how care unfolds, which affects information processing biases, and which translates in more or less support seeking behavior during distress. Second, this support seeking behavior or difficulties in support seeking can be easily observed. Moreover, this support-seeking behavior has been proven to be critical for (mal)adaptive development, as support seeking attenuates the negative impact of exposure to stress on the development of psychopathology. Third, research contradicts the stability of attachment, but rather shows that attachment needs to be considered a complex dynamic process consisting of state-like experiences affecting trait-like characteristics. This showed that attachment-development can be constantly affected by changing the context. One new, but increasingly studied strategy to restore ruptures in secure attachment development, is Attachment-Based Family Therapy. This therapy focuses on repairing ruptures in the relationship between adolescents and parents in order to treat suicide and depression. It is a 16 week treatment that has proven to be highly effective and that has been recommended as the best treatment for these problems in a meta-analysis conducted by John Weisz (2006). Meanwhile we have developed similar strategies to improve attachment development in middle childhood.

#### **Key learning objectives**

In this workshop, participants will

1. learn to recognize ruptures in parent-child attachment relationships
2. learn skills to help parents and children discuss ruptures in the relationships
3. get insight in the strategies that can help to repair ruptures in parent-child relationships

#### **Implications for everyday clinical practice of CBT**

This approach might create a more fruitful relational home-context that could enhance the beneficial effects of the high quality intervention strategies developed within (C)BT.

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### **Recovery Oriented Cognitive Therapy for Individuals without Insight**

#### **Aaron Brinen, Drexel University School of Medicine, USA**

Insight into the idea that an individual has a mental illness can seem like a prerequisite for successful treatment and recovery from serious mental illness. For many of these individuals, they do not interpret their experiences (hallucinations and delusions) as symptoms, some clinicians say they lack insight. For some individuals, the very treatment designed to address this lack of insight can increase conviction that the symptoms are not a part of an illness, make the delusions or hallucinations worse and precipitate avoidance of treatment. Recovery-oriented cognitive therapy (CT-R) for serious mental illness is an empirically-supported treatment that operationalizes recovery and resiliency in a collaborative way. This INTRODUCTORY workshop will introduce through lecture, video, and role-play the basic protocol of CT-R and how to start using it to circumnavigate the “insight” requirement and engage the individual directly in the recovery process. CT-R applies across the range of severity, and includes a way to understand these challenges (low energy, disorganization, grandiosity, hallucinations, aggression, self-injury, etc. ) that can keep the individual from engaging and getting the life of his choosing, along with strategies for action to promote that life to its fullest. This workshop will review the process of developing a formulation (beliefs, compensatory strategies, and emotions) and strategy for long term resolution of the symptoms with or without eventual identification of the

experiences as symptoms of an illness. The strategy is grounded in the CT-R protocol of activating a competing network of beliefs and an adaptive mode of functioning, collaborating on development of aspirations, increasing/evaluating the role of activity in the individual's life, and reinforcing belief networks to make the adaptive mode dominant.

#### **Key learning objectives**

1. Name three reasons for individuals refusing they have a mental illness.
2. Explain the methods for using the Recovery Oriented Cognitive Therapy protocol for flourishing in the absence of insight.
3. Develop a formulation for individuals
4. Describe strategy for change for overcoming obstacles in the absence of insight.

#### **Implications for everyday clinical practice of CBT**

For clinicians treating individuals with psychosis, they will better engage individuals in moving towards their aspirations while helping restructure unhelpful or inaccurate beliefs that maintain pathology. For clinicians not working with psychosis, they can see ways to deemphasize pathology and labeling, while producing similar, durable change.

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#### **From Skill to Specialism: Increasing Expertise as a CBT Supervisor**

**Sarah Corrie, Central and North West London NHS Trust, United Kingdom, & David Lane, Professional Development Foundation, United Kingdom**

Supervision is increasingly regarded not just as an activity offered to novices in order to enable them to qualify as professionals but as a lifelong engagement in the development of expertise. CBT supervisors may need to work in a very different way when supervising experienced practitioners rather than early career therapists. As a result, the field will benefit from drawing on the research literature on expert practice and practice theory, in addition to passing on their CBT-specific knowledge and skills. Drawing on key references and research, the workshop will present an introduction to some of this theory, examine the factors influencing the development of expertise and consider how we can best conceptualise the practices involved in supervision. The workshop will primarily focus on an overview of the necessary practices that follow on from the theory to support supervisors in re-examining their contribution to the learning and development of those whom they supervise based on reflection on their own work.

#### **Key learning objectives**

Through participating in the workshop, participants will:

1. Acquire knowledge of how to facilitate the development of expertise in themselves and in those they supervise
2. Understand the context in which they are delivering supervision
3. Gain experience of applying this knowledge to a case example
4. Gain an understanding of how they can apply new concepts and theories to their work with those whom they supervise currently
5. Practice delivering supervision through a role-play exercise

#### **Implications for everyday clinical practice of CBT**

More than ever before, professional practice is evolving at a rapid rate. Unprecedented changes at the social, economic and political levels are shaping not just what kinds of psychological interventions are offered, but also how they are delivered. This evolving landscape has major implications for the training, support and development of the CBT workforce. In particular, there is a growing need to consider how we equip the workforce to respond to an increasingly broad range of client groups seeking CBT, at the same time as navigating both an expanding knowledge base and the demand to deliver interventions in compressed time frames. However, relative to other areas of practice within CBT, the training, development and support needs of the CBT workforce have not always been given the attention that they deserve. Supervision is one of the key ways in which practitioners are trained and developed and is increasingly understood to be a specialism in its own right. The potential implications of this workshop include helping those involved in delivering supervision find new ways of building their own expertise in order to better support the evolving needs of the workforce delivering CBT interventions now and in the future.

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#### **Integrating and Optimising Imagery Rescripting in PTSD – from Practice to Research to Practice**

**Sharif El-Leithy, Traumatic Stress Service, United Kingdom, & Hannah Murray, University of Oxford, United Kingdom**

Imagery rescripting techniques are increasingly integrated into CBT, to directly modify the emotional impact of distressing mental imagery and associated meanings. Distressing imagery is a hallmark symptom of PTSD; hence imagery rescripting has found a particular application in this area. There is growing evidence that imagery rescripting can stand-alone as a treatment for PTSD symptoms including nightmares, as well as potentially enhancing the efficacy of imaginal reliving within trauma-focused CBT (Tf-CBT).

However there are gaps in our understanding more generally about how imagery rescripting works and what makes an effective imagery rescript. The existing literature describes a range of rescripting techniques across disorders, and for key emotions/meanings in PTSD such as fear, helplessness, guilt, shame and disgust. Despite this, there is also limited clinical guidance on how to select and implement techniques effectively, how to routinely integrate them into Tf-CBT, and how to overcoming common obstacles and difficulties in their application.

The workshop sits at the crossroads between basic process research and routine clinical practice. With reference to cognitive models of PTSD and memory, we will provide an overview of the imagery rescripting literature and its application in both simple and complex PTSD presentations. We will also present novel results from a number of quantitative, qualitative and single case studies of imagery rescripting conducted in routine clinical settings. From this we will derive a clinical framework to help participants effectively implement rescripting techniques, integrate them within a Tf-CBT model, and formulate and overcome common obstacles.



### Key learning objectives

1. Learn about the range of rescripting techniques applicable in PTSD treatment
2. Understand how to conceptualise imagery rescripting within existing cognitive models of memory and PTSD
3. Learn practical ways to implement these techniques effectively and creatively while maintaining fidelity to cognitive models.

### Implications for everyday clinical practice of CBT

The workshop will equip therapists working with PTSD and other trauma-related difficulties with principles, conceptual frameworks and practical skills to help them effectively integrate imagery rescripting techniques into their work.

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## Emotion Regulation Skill Development: A Transdiagnostic Approach for Young Adults with Co-Occurring Substance Use and Mental Health Disorders

### Kate Hall, Deakin University, Australia

Emerging adulthood (the period from 18 to 25) has been recognised as a critical period in psychological development and could be defined as a cross road in ensuring a healthy adult developmental trajectory. This period is therefore a time of risk and vulnerability and is associated with the highest risk for the onset of mental health disorders and is the peak age for the initiation of substance use. High levels of diagnostic ambiguity are commonplace in young adults, requiring novel CBT approaches.

Young people across Western cultures are struggling to effectively navigate the transition from adolescence to adulthood. Mental health and substance use concerns in this age group are a National priority in Australia. Internationally, emerging adulthood has been deemed a critical period in emotional development. Addressing emotion regulation skill development at this critical stage is an essential adjunct to CBT for all practitioners delivering mental health and substance use interventions to young adults.

Deficits in emotion regulation are relevant to the aetiology and maintenance of depressive, anxiety, eating, substance and borderline personality disorders. Adaptive emotion regulation involves (a) awareness and acceptance of emotions, (b) the ability to control impulsive behaviours when experiencing negative emotions, and (c) the ability to use appropriate strategies to manage emotions in order to achieve desired goals. Therefore, building skills in emotion regulation is essential for long term healthy social emotional development and mental health and wellbeing.

The purpose of this workshop is to apply an emotion regulation framework to the unique clinical needs of young adults. It will be proposed that emotion regulation skill development as a crucial adjunct to our current cognitive and behavioural treatments for young adults with anxiety, depressive, eating, and substance use disorders. An exemplar intervention ERIC, an emotion regulation skills program, will be provided to enhance application to everyday practice.

### Key learning objectives

1. Consolidate knowledge on the critical life stage and transition from adolescence to young adulthood.
2. Become familiar with the three main theoretical models of emotion regulation.
3. Appraise the evidence for emotion regulation as a transdiagnostic construct across anxiety, depressive, substance, eating and borderline personality disorders.
4. Gain knowledge in adaptive versus maladaptive emotion regulation strategies and their association with psychopathology.
5. Become familiar with the 8 domains of an exemplar emotion regulation skills training program - "ERIC: helping young people regulate emotions and control impulses; eric.org.au".
6. Engage in reflective practice regarding the integration of an emotion regulation framework into treatment.
7. Build skills in increasing emotional literacy in young adults.
8. Build skills in addressing rumination and avoidance in young adults.

### Implications for everyday clinical practice of CBT

During the workshop participants will undertake self-reflection regarding their own use of emotion regulation strategies and gain knowledge in emotion regulation frameworks through both theory and 3 case studies. Demonstrated skill development will be observed through the participants' use of ERIC tools, which will be made available to all participants: eric.org.au. Skills that can be applied in everyday practice of CBT with young adults will be practiced in pairs and consolidated in small group exercises. Assessment of the learning outcomes will also occur through application of an emotion regulation framework to case examples, contribution to small group and larger group discussion.

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## A Resilience Universal Program to Prevent Psychopathology and Its Application to the Clinic.

### Daniel Hamiel, Cohen Harris Resilience Center Tel Aviv Israel and Interdisciplinary Center Herzlia, Israel

This workshop should be understood as part of a current innovative psycho-social approach to psychotherapy, directed to address masses of people who might need psychological assistance, based on principles of the 3rd wave CBT and of Low Intensity CBT Interventions (LICBT-I). This workshop will demonstrate a prevention program that can be used also as short term psychotherapy for individuals. The interventions are based on a program originally implemented in schools to prepare children to cope with routine and traumatic stressors. During 2004-2018, we have trained thousands of teachers and counselors in Israel, to deliver resilience to their students (700,000 nationwide). Recently, the program has been endorsed by the Ministry of Education to be part of the regular curriculum of every school in Israel. A series of empirical studies has shown the effectiveness of the program concerning the children's functioning, the teachers self-efficacy and pedagogical performance, and the classroom atmosphere. Based on this program we have developed and implemented resilience enhancement programs for different age groups and different population (e.g., for parents and educational staff of infants in day-care centers, for parents and educational staff of autistic kids, for adolescents at risk in boarding schools, for junior students in the university, for

physicians and their patients, and for the elderly (delivered by volunteers) to cope with the challenges of this age. We already adapted the intervention to different cultures (Israeli Muslims, Refugees from Africa, Orthodox religious Jews and the program is now under research in Norway).

The objective of this workshop is to describe a preventive program to enhance resilience in the community in with the individual patient. The program in it's community version is delivered by mediators in different community settings: in the education setting, in the medical primary care clinics, hospitals, universities, institutions for the elderly and more. An advantage of the program is the ecological use of the class setting and the teachers as "clinical mediators", and the dissemination of simple but effective clinically-informed methods to help clients confront everyday stressors and process feelings and experiences. Techniques found effective in the therapeutic setting mainly the 3rd wave CBT, have been "translated" into educational didactics to be used easily by every person. The program integrates emotional, physiological and cognitive behavioral techniques as well as methods to regulate the focus of attention (e.g., mindfulness). I will review the theoretical background and emphasize on practicing the various techniques and how to implement the program in different setting.

#### **Key learning objectives**

1. To understand the theoretical background of the program and it's components.
2. To learn how to implement the principles and techniques with groups in different settings and with individuals in the clinic.
3. To experience and practice some of the tools in the workshop.

#### **Implications for everyday clinical practice of CBT**

The workshop directed to address masses of people who might need psychological assistance, based on principles of the 3rd wave of CBT and of Low Intensity CBT Interventions (LICBT-I) in a prevention way. However It will also help to implement the innovative methods and the new techniques not only in workshops like those that described here but with individuals in the clinic.

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L. Wolmer\*, D. Hamiel\*, N. Laor. (\*equal contribution) Preventing children's post traumatic stress after disaster with teacher-based intervention: A controlled study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 2011, 50:340-348. (\*equal contribution)

### **An Introduction to Process-Based Acceptance and Commitment Therapy**

#### **Steven Hayes, University of Nevada, USA**

Acceptance and Commitment Therapy (ACT) is a process-focused and evidence-based approach to psychotherapy that rethinks even our most basic assumptions of mental well-being. In this short introductory workshop, Dr. Hayes will provide an overview of the psychological flexibility model on which ACT is based, show how it flows from a relational view of human cognition, and describe how therapists can use flexibility processes to develop individualized treatment interventions. Participants in this workshop will (1) learn the six core processes of change that together comprise the psychological flexibility model, and (2) examples of clinical methods that can move these processes.

#### **Key learning objectives**

Attendees will be able to

1. Describe the six psychological flexibility processes
2. Show at least one method for increasing each of the flexibility process
3. Describe how a focus on psychological flexibility alters the view of traditional CBT methods

#### **Implications for everyday clinical practice of CBT**

All comprehensive process-based therapy models need to address issues of affect, cognition, attention, self, motivation, and overt behaviour. ACT does so in a unique way due to its functional contextual view of cognition. When psychological flexibility processes are understood, therapists always have alternatives to pursue in session that are evidence-based at the level of processes of change, even when existing protocols and methods fail.

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### **Culturally Adapting CBT for Diverse Populations: An Evidence-Based Approach**

#### **Wei-Chin Hwang, Claremont McKenna College and Independent Practice, USA**

What are cultural adaptations? How do we culturally adapt psychotherapy in a clinically sound and evidence-based manner for those from diverse backgrounds? This workshop discusses how culture influences mental health processes and identify areas for cultural adaptation. Top-down and bottom-up frameworks to culturally adapt therapy will be introduced. Concrete examples from a culturally adapted treatment manual that I developed for use with Chinese Americans and tested on in a randomized controlled trial will be presented. The goal of this workshop is to gain both breadth and depth of understanding, as well develop practical clinical tools to use with diverse populations. Culturally adapting therapy is important because research demonstrates that ethnic minorities and non-White populations are less likely to receive quality health services and evidence worse treatment outcomes when compared with White populations. Although considerable progress has been made in establishing and defining efficacious and possibly efficacious treatments for the general population, relatively little is known about the efficacy of evidence-based psychological practices (EBPPs) for people from diverse backgrounds. Addressing this issue is critically important because non-White populations evidence barriers in access, delay and utilize mental health treatments at lower rates, and evidence worse outcomes. The information that will be presented in this CE workshop will be based off of a U.S. National Institutes of Mental Health (NIMH) funded clinical trial focused on creating a culturally adapted intervention for Chinese Americans and testing its effectiveness against nonadapted CBT. This study was the first NIMH funded outcome study on an Asian American group. Moreover, it is the first study that tests adapted versus unadapted psychotherapy.

#### **Key learning objectives**

By the end of this workshop, participants should be able to...

1. Understand the rationale and need for culturally adapting psychotherapy.

2. Utilize theoretical and community participatory frameworks for developing evidence-based psychotherapy
3. Utilize conceptual frameworks to develop culturally adapted evidenced-based clinical interventions.
4. Enhance one's ability to culturally adapt psychotherapy and improve clinical effectiveness when working with specific ethnocultural groups.

#### **Implications for everyday clinical practice of CBT**

This workshop has implications for those who want to more effectively utilize CBT when working with ethnic minority and diverse populations.

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- Hwang, W., Myers, H. F., Chiu, E., Mak, E., Butner, J., Fujimoto, K. A., Wood, J. J., & Miranda, J. (2015). Culturally adapted Cognitive-Behavioral Therapy for Chinese Americans with depression: A randomized controlled trial. *Psychiatric Services*, 66(10), 1035-1042.
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### **Cognitive Behavioral Analysis System of Psychotherapy (CBASP) for the Treatment of Chronic Depression: a Global Perspective**

**Jan Philipp Klein, Lübeck University, Germany, & Favorite Todd, University of Michigan, USA**

Treating patients with chronic depression can be challenging for the clinician. These patients might appear withdrawn, anxious, or even openly hostile. This behavior can be an obstacle for establishing a trusting therapeutic relationship. It can be understood however against the background of the pervasive maltreatment these patients have often endured with significant others. The 'Cognitive Behavioral Analysis System of Psychotherapy' (CBASP) was specifically developed by James McCullough to treat patients with chronic depression.

#### **Key learning objectives**

In the end of the workshop, participants will have learned new strategies for the establishment of a trusting therapeutic relationship with their (often interpersonally traumatized) chronic depressive patients. They will also get the chance to discuss culturally sensitive ways of implementing these strategies.

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### **Cognitive Behavior Therapy for Decision Making: Helping Clients Avoid Problematic Choices**

**Robert Leahy, American Institute for Cognitive Therapy, USA**

Most areas of psychopathology involve problems in decision making including avoidance, passivity, impulsiveness, procrastination, excessive reassurance seeking, and substance abuse. Although cognitive and social psychology have elaborated problematic processes in decision making very little of this has been applied to CBT. Effective therapy often involves helping clients evaluate their decisions and pursue alternatives that they otherwise might avoid. It is suggested that going beyond simple cost-benefit analysis will be helpful to clinicians and clients. In this presentation we will review the following problems in decision making: loss aversion (framing decisions as losses only), arbitrary false dichotomies ("It's either A or B"), the endowment effect (placing greater value on the status quo), risk assessment (miscalculating probabilities and magnitudes of outcomes), myopic (short-term) focus, intolerance of uncertainty (demanding certainty and equating uncertainty with bad outcomes), faulty heuristics (e. g. , basing decisions on emotions, salience, recency, or accessibility), and making decisions focused primarily on avoiding regret. A wide range of techniques will be reviewed, including clarification of priorities, enhancing future self-perspective, examining opportunity costs, framing choice as risk vs. risk, developing pre-commitment strategies, reversing sunk-cost effects, and reducing the impact of regret and post-decision rumination. Affective forecasting--that is, overprediction of emotion following events in the future-- often contributes to anticipatory regret, with predictions leading to beliefs in greater impact of events than is warranted by the facts. In addition, some decision makers have idealized beliefs about decisions, rejecting ambivalence as an inevitable part of the tradeoffs underlying decision making under uncertainty. Specific decision styles are more likely to contribute to regret, including maximization, emotional perfectionism, intolerance of uncertainty, and over-valuation of "more" information rather than relevant information. In this presentation we will examine how regret is linked to hindsight bias, maximization rather than satisfaction strategies, intolerance of uncertainty, rejection of ambivalence, refusal to accept tradeoffs, excessive information demands and ruminative processes. Specific techniques will be elaborated to balance regret with acceptance, present utility, and flexibility to enhance more pragmatic decision processes, reverse ruminative focus on the past and replace self-criticism with adaptive self-correction. Participants are invited to consider decisions in their own lives in light of the material in this presentation.

#### **Key learning objectives**

1. Describe the most problematic errors in decision making
2. Learn how to reduce regret-oriented processes in decision making
3. Identify more practical strategies for evaluating risk assessment
4. Assist clients in reversing their habitual errors in decision-making
5. Reduce Maximization and Emotional Perfectionist Strategies to improve satisfaction

#### **Implications for everyday clinical practice of CBT**

Since therapy almost always involves decision making and change the clinician can be more effective in conceptualizing resistance to change and more adept in implementing strategies that enhance more pragmatic decision-making.

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### **Schema Therapy for Children and Adolescents (ST-CA)**

**Christof Loose, Psychotherapy Practice and Centre for Schema Therapy Dusseldorf, Germany**

Schema Therapy (ST) is an enhancement and development of cognitive behavioral therapy, and particularly integrates emotions, but also developmental aspects centrally in their diagnostic and therapeutic considerations. It is based on a model of schemas, modes and the basic needs and "their fate" during the life course. Therefore, ST - in terms of technical and strategic variant of CBT – seems to be also and especially in the field of child and adolescent therapy particularly suited to generate action-guiding, diagnostic and therapeutic concepts. The aim of the workshop is to establish and/or to improve a better and profound understanding of ST-CA.

#### **Key learning objectives**

In this workshop, first the schema therapeutic conceptual model, the underlying theory, and requirements in the therapeutic attitude are briefly outlined. Related to the children's age one of the 18 schemas described by Young are outlined with their typical child and adolescent cognitions, coping strategies, and parental characteristics.

#### **Implications for everyday clinical practice of CBT**

ST-CA helps to clarify adaptive and maladaptive schemas, functional and dysfunctional modes, and emotional core needs, that are often "behind" the symptoms. It offers easy-to-learn exercises that therapists can immediately apply to day-to-day challenges and emotional problems as well as the complex difficulties typically tackled with schema therapy (e.g. in Borderline PD).

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### **Facilitating Emotion Regulation in Cognitive Therapy for Persistent Depression**

**Richard Moore, Private Practice, United Kingdom**

Cognitive Therapy is a treatment whose efficacy has been well established in depression. Despite this, a majority of patients fail to respond fully and continue to experience persistent or recurrent depressive symptoms. Various alternative approaches have been proposed to address this, but there is so far little evidence of superior outcomes. This workshop will propose that the persistence of depression may in part be due to difficulties in regulating emotions both in everyday life and within therapy sessions.

In many cases of acute depression, helpful emotion regulation is achieved through the use of standard cognitive therapy procedures. Identifying relevant problems and automatic thoughts is accompanied by distressing emotions, which are then addressed through re-evaluating negative thoughts and developing coping strategies. In cases of persistent depression, this helpful regulation of emotion frequently does not occur without some adaptation of therapy style and procedures.

This workshop will consider familiar clinical presentations where insufficient or excessive emotional arousal impedes the successful outcome of therapeutic interventions. The problems this presents to the therapy process will be illustrated through clinical examples. Through formulation of patients' unhelpful emotion regulation strategies, the workshop will explore how these strategies may be linked to dysfunctional assumptions and beliefs. Adaptations of the therapeutic style to help to foster helpful levels of emotional arousal will be illustrated through clinical examples and practiced through role play exercises.

#### **Key learning objectives**

The workshop will aim to be of benefit to therapists at all levels of experience who struggle in applying standard CT for depression with patients who have more persistent presentations.

Through attending this class, participants will learn to:

1. Recognise the effect of difficulties in emotion regulation on presentations of patients with persistent depression and consider how these difficulties may adversely affect therapy
2. Adapt the cognitive model of depression in order to formulate how difficulties in emotion regulation may contribute to persistence
3. Consider and practice how to adapt the style of therapy to manage levels of affect in the session and enhance engagement in the therapeutic relationship

#### **Implications for everyday clinical practice of CBT**

For many patients, unhelpful strategies for regulating distress can frustrate progress in therapy by pervasively thwarting various types of therapeutic intervention and technique. Understanding and addressing such negative impacts can help to make best use of therapy time whatever the particular intervention, level of therapeutic expertise or duration of therapy.

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### **Integrative CBT for Bipolar Disorder**

**Cory Newman, University of Pennsylvania, USA, & Robert Reiser, University of California, USA**

A growing body of research on psychosocial treatments for bipolar spectrum disorders suggests the efficacy of a hybridization of CBT that also draws from the empirically-supported findings of Family-Focused Therapy (FFT), Interpersonal Social-Rhythm Therapy (IPSRT), Mindfulness-Based Cognitive Therapy (MBCT), and Dialectical Behavior Therapy (DBT). Citing research from Canada, China, Spain, the U.K., the U.S., and other countries, the workshop will highlight the core CBT methods that have shown promise in the treatment of bipolar disorder, emphasizing the therapeutic relationship, case formulation, and interventions that build clients' knowledge base and self-help skills. Among these important interventions are self-monitoring (e.g., mood charting, recognition of prodromes), psycho-education (about CBT in general and bipolar disorder in particular), activity moderation (being activated, but not excessively goal-directed), rational responding (to depressive thinking as well as hyper-positive thinking), safety planning (for those clients who are at risk for suicide), and related homework

assignments. The workshop will describe a “recovery-oriented” approach that emphasizes individual case conceptualization, that respects the clients’ goal of improving quality of life (i.e., not just reducing symptoms), and that takes into account the stage of their illness (e.g., an early stage that involves making peace with the diagnosis). The workshop will also briefly summarize family interventions (e.g., communication skills), sleep hygiene methods, mindfulness practices to lower anxiety, and DBT skills approaches (e.g., emotion self-regulation). Attention will be paid to the importance of inter-disciplinary collaboration with practitioners who are prescribing the clients’ medications, to empathizing with clients regarding the need to take medications long term, and to helping the clients spot and modify inaccurate beliefs about medication. The goal of reducing clients’ self-stigmatization will also be described, along with methods of helping clients decide on when, how, and with whom to disclose their illness. Cross-cultural issues will also be acknowledged, such as the clinically sensitive management of risky, excessive goal-driven behavior in the context of societies that positively reinforce such behavior and offer ample opportunities to over-extend (e.g., “manico-genic” environments).

#### **Key learning objectives**

Participants in this workshop will learn to:

1. Educate clients about bipolar disorder in a way that empowers them.
2. Apply a wide range of interventions that target the clients’ thinking patterns and self-awareness, behavioral routines, relationships and general communication, health habits (including sleep hygiene), and beliefs about pharmacotherapy.
3. Apply safety-planning methods with bipolar clients who may be at risk for self-harm.

#### **Implications for everyday clinical practice of CBT**

This in-Congress workshop will serve as a concise, densely-packed tutorial in how to apply the widest range of CBT-related methods that have empirical support in the treatment of bipolar disorder. Participants will be able to individualize the treatment, offer maximum collaboration with and respect for the clients, be ready to respond appropriately and effectively to sudden shifts in clients’ functioning, and promote clients’ wellness behaviors (from sleep hygiene to safety planning to improving hope and the quality of life). In addition to teaching clients core CBT self-help skills, clinicians will be able to help clients navigate important family interactions, manage their pharmacotherapy with self-respect and prudent decision-making, and to be mindful and well self-regulated. With these methods, clinicians will be able to provide robust short-term courses of CBT as well as ongoing, long-term care.

#### **References**

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### **Self-Reflection and Self-Experience in Combined CBT and Schematherapy Training**

**Marie Ociskova & Jan Prasko, University Hospital and Palacky University Olomouc, Czech Republic**

Self-reflection in cognitive behavioral therapy and schematherapy is a continuous process which is essential for the establishment of a therapeutic relationship, professional growth of the therapist, and the ongoing development of therapeutic skills. Recognizing own emotions, cognitions, and whole experience is a basic skill from which stem other skills necessary for both therapy and emotional self-control.

Therapists who are skilled in understanding their inner experiences during sessions with clients can better understand the client, be more empathetic, make better decisions, distinguish their needs from their clients’ needs, and consider an optimal response at any time during a session. Self-reflection may be practiced by the therapists themselves using traditional cognitive behavioral therapy and schematherapy strategies, or it may be learned during the supervision.

Very important part of self-reflection is personal therapy of the therapist. Experiential training and personal therapy have rich traditions in various therapies as strategies to enhance self-awareness and therapist skills. We have organized integrated CBT and schematherapy training in which trainees were targeting their own problems, working with cognitive restructuring, exposures, early maladaptive schemas, modes, communication skill training, and experiential strategies like rescripting in imagination, role playing, and therapeutic letters.

The goal the present workshop consists of three components:

Teaching the skills of self-reflection using cognitive and experiential techniques

Challenging the schemas and coping using cognitive and experiential techniques

Working with life problems using imagination, role playing, exposure and skills training

#### **Key learning objectives**

Participants will acquire the following skills:

1. self-reflection using cognitive, imaginal, and role playing strategies
2. cognitive and emotional work with schemas
3. work with own life problems using imagination, role playing, exposure and skills training

#### **Implications for everyday clinical practice of CBT**

Self reflection helps therapist to better understand themselves and the client, improves therapeutic relations and defend against burn out.

#### **References**

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### **Inference-based Therapy for OCD**

**Kieron O'Connor, University of Montreal, Institute of Mental Health, Canada, & Henny Visser, Marina de Wolf Centre, the Netherlands**

inference based treatment has been shown effective in treating OCD and offers a non-phobic non-anxiety provoking treatment. It considers obsessional doubt is arrived at by a series of reasoning devices and in particular inferential confusion where investment in remote possibilities and distrust of the senses trumps perception of reality. A wealth of empirical research supports inferential confusion as a key factor in OCD.

### Key learning objectives

1. Review the main principles of Inference based Approach (IBA) to treating Obsessive Compulsive Disorder (OCD)
2. Evidence based distinctions between IBA and traditional CBT
3. Step by step illustration of the IBA program using case illustrations and audience interaction.

### Learning points

The attendees will take away practical and theoretical knowledge of OCD and of IBA; the information on steps and tools of the IBA program; the nuts and bolts of application to diverse clinical cases; predictors of successful outcome. A certificate of attendance will be provided.

### Implications for everyday clinical practice of CBT

Inference based therapy offers a non-threatening alternative to dealing with obsessional doubts and does not require immediate exposure so avoiding difficulties with exposure but focuses on changing reasoning. It seems effective in subgroups which are difficult to treat with standard CBT such: overvalued ideas and repugnant obsessions. Unlike other cognitive models IBA proposes that the obsession begins with the initial doubt and understanding that this initial doubt is a pathological doubt not justified in the here and now is essential to resolve and eliminate the obsession.

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### Brief Behavioural Activation (Brief BA) for Adolescent Depression

#### Laura Pass & Shirley Reynolds, University of Reading, United Kingdom

Behavioural Activation (BA) appears to be a very effective treatment for depression in adults and may be a promising treatment for young people. We have adapted brief BA (BATD-R; Lejuez, et al., 2011) for use with adolescents (Brief BA; Pass & Reynolds, 2014). Brief BA is designed to be delivered by a range of professionals who do not require specialist qualifications or extensive training. Brief BA has been piloted with promising outcomes in adolescent mental health services, and we are currently evaluating Brief BA delivered in secondary schools with positive findings to date.

Key elements of the Brief BA for adolescents include:

- A focus on engaging young people in BA
- Scaffolding therapy based on developmental/cognitive constraints
- The involvement of parents/carers
- A focus on identifying young people's values
- Including problem solving and contracting, with parental involvement
- Session by session workbooks for young people and their parents

Brief BA involves 6-8 weekly sessions of up to 1 hour, and a 30 minute review session one month later. Brief BA is simple to explain, easy to understand and reasonably straightforward to incorporate into an adolescent's life. Pilot data shows that engagement in treatment has been very good, that Brief BA is acceptable to young people, parents and school staff, and leads to reductions in depression symptoms and improved functioning in most young people (Pass, Lejuez, & Reynolds, 2017; Pass et al., 2018).

This workshop will demonstrate the use of Brief BA with adolescents who are experiencing clinically significant depressive symptoms. It will focus particularly on how to engage young people in treatment, how to identify their values and link values to activities, and how to work with parents and young people as well as relevant others including school staff. Case examples will be used to highlight specific challenges and techniques.

### Key learning objectives

Participants will acquire the following knowledge and skills:

1. Understand how Brief BA draws on behavioural theory to treat depression in adolescents
2. Engaging depressed young people and their parents or carers in brief BA
3. Helping young people to identify their values in three key areas - self, people that matter and things that matter
4. Linking young people's values to activities and planning these in to daily life
5. Dealing with conflict and disagreement between young people and parents/carers

### Implications for everyday clinical practice of CBT

Brief BA provides a low intensity alternative to current evidence-based psychological therapies. In the context of multi-disciplinary CAMHS it may also be an appropriate part of a stepped care pathway for depression in adolescents, and a promising intervention to apply in the school setting.

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### Crisis Response Planning for Preventing Suicidal Behavior

#### David Rozek, University of Utah, USA

Crisis Response Planning (CRP) is a brief personalized problem-solving tool used to promote the use of individual-specific coping strategies during an acute suicidal crisis. The CRP intervention has demonstrated efficacy (Bryan et al., 2017a) in 1) reducing suicidal behavior by

76%, 2) reducing suicidal ideation faster than treatment as usual (TAU), 3) reducing psychiatric inpatient days in comparison TAU, 4) reducing negative mood states (Bryan et al., 2017b), and increasing optimism (Rozek et al., 2018). This workshop is designed to enhance individuals' knowledge about crisis response planning for managing acute suicide risk, and to increase their ability to confidently and competently administer this intervention with at-risk individuals. The first half of the workshop provides didactic knowledge about suicide, the development of the crisis response plan intervention, and its empirical support, all of which are designed to increase knowledge. The second half of the workshop includes clinical demonstrations by the instructor and skills practice by attendees, which are designed for individuals to acquire skill competency.

Outline of the training curriculum:

- I. Introduction
  - a. What a crisis response plan is and is not
  - b. Essential elements for suicide prevention interventions
  - c. Empirical evidence supporting the crisis response plan
- II. Understanding suicidal behaviors
  - a. The functional model of suicide
  - b. Stable and dynamic properties of suicide risk
  - c. Common reactions to suicidal individual
- III. The narrative assessment
  - a. Mechanics and general approach
  - b. Clinical demonstration
  - c. Role play
- IV. The crisis response plan
  - a. Mechanics and general approach
  - b. Clinical demonstration
  - c. Role play

#### Key learning objectives

1. To describe the primary motives for suicidal behavior
2. To effectively conduct a narrative assessment of the index suicidal crisis
3. To identify the core components of a crisis response plan
4. To help a suicidal individual identify and implement strategies that can reduce their suicide risk

#### Implications for everyday clinical practice of CBT

Crisis response planning (CRP) is a technique that is based on the cognitive model and theoretically and practically fits within cognitive and behavioral based treatments for other disorders. The CRP is a technique that can be integrated into treatment in order to directly address suicidal ideation and behavior.

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#### The Willpower Workshop: Seven Steps to Sustaining Therapeutic Change

##### Frank Ryan, Imperial College London, United Kingdom

Willpower is defined as a flexible cognitive resource that can be facilitated, diverted or depleted, particularly when engaged in effortful therapeutic change in the context of overcoming addiction and co-occurring disorders. The core components of willpower are motivation, working memory and attentional control. In the workshop, therapeutic interventions that directly or indirectly boost motivation and cognitive control will be described and demonstrated. These include strategies that promote self-regulation such as goal maintenance and working memory training.

Sustaining willpower also requires self-compassion, avoiding self-blame in the face of setbacks and engaging the support of others. The content is based on a seven-step approach which utilises CBT strategies, combined with an emphasis on cognitive or neural fitness:

- Willpower is a shared and hence limited cognitive-motivational resource that requires careful stewardship: identifying situations where willpower is compromised is key to sustaining therapeutic gains.
- Overcoming habits places particular demands on willpower. Selecting one goal at a time, or prioritising a series of specific sub-goals, optimises willpower.
- Willpower can be enhanced by practicing self-restraint in diverse domains that promotes cognitive flexibility and boosts self-efficacy.
- Compassion and optimism foster willpower; emotional negativity depletes it.
- Willpower is usually challenged in ways that can be anticipated, allowing for coping strategies to be rehearsed.
- Reinforcing effort in pursuing therapeutic goals is vital, as the rewards delivered by willed effort are often delayed and uncertain.

The workshop should be relevant to practitioners who encounter clients presenting with addictive disorders, or those needing to sustain lifestyle, dietary changes or smoking cessation.

#### Key learning objectives

Participants will learn:

1. In therapeutic contexts willpower depletion- a type of "mental exhaustion" - can occur when efforts are being made to reverse established behaviour patterns, especially in the context of addiction.
2. This can challenge the therapeutic alliance, weaken therapeutic engagement and compromise outcomes.
3. Promoting willpower, defined as motivated cognitive control, is therefore a core therapeutic activity.
4. Deploying willpower effectively depends on cognitive processes of limited capacity (working memory and attention focus) in the face of relatively capacity free automatic processes (distraction and attentional bias)

5. In addition to being a limited cognitive resource willpower is also a shared or universal competence. This means that if intensive effort is required in one domain e.g. a demanding task at work, residual capacity to pursue therapeutic goals, such as overcoming craving might be jeopardised. Accordingly care planning needs to anticipate and protect against excessive cognitive load whenever possible.
6. Conversely, as a shared but eminently flexible resource, willpower can be practiced and strengthened in diverse domains that potentially boost cognitive flexibility and resilience in the therapeutic arena. Moreover, this can boost self-efficacy or beliefs about willpower in a manner likely to promote persistence in the pursuit of therapeutic goals.
7. Motivation needs to be explicit, expressed through clear and repeated description of therapeutic goals and the associated benefits. Because the rewards that follow defaulting to the addictive behaviour (e.g. smoking; drinking alcohol, gambling) are predictable and almost immediate they have more motivational power than the deferred and less certain benefits of restraint. Participants will learn to ensure clients recognise this distorted reward valuation and assign more salience to the more valuable rewards of sustaining change. Further, clients are explicitly praised and validated for continued engagement in therapeutic sessions and between session work, depicted as an investment in their future health and wellbeing.

#### **Implications for everyday clinical practice of CBT**

Understanding both the limitations and strengths of willpower can be helpful for both therapist and client in CBT. Cognitive and motivational processes can be targeted directly in therapeutic interventions for addiction under the well-understood term "willpower". Viewed as a flexible cognitive resource that can be facilitated, diverted or depleted this provides a novel cognitive-motivational framework which can foster a collaborative therapeutic alliance.

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#### **Schema Therapy for Chronic Depression**

**Alexandra Schosser, BBRZ-Med and Medical University Vienna, Austria**

Schema therapy is an integrative treatment for chronic axis-I and axis II disorders (Young et al. 2003), with an established effectiveness for personality disorders such as borderline, narcissistic, Cluster-C, paranoid and histrionic (Bamelis et al. 2012). Besides, emerging evidence suggests the effectiveness of schema therapy in chronic major depression (e.g. Renner et al. 2016).

#### **Key learning objectives**

Participants will acquire the following skills:

1. risk factors for chronic depression
2. early maladaptive schemas (EMS) and modes in chronic depression
3. bypassing dysfunctional coping modes that hinder behaviour pattern breaking in chronic depression
4. implementation of schema therapy for chronic depression in an multi-professional psychiatric rehabilitation setting

#### **Implications for everyday clinical practice of CBT**

Treatment approaches for chronic depression include, among others, cognitive therapy (CT) and cognitive behavioural analysis system of psychotherapy (CBASP). However, in a number of studies, the initial treatment effects for chronic depression were often not maintained. Several studies have shown that schema therapy targets important underlying risk factors to chronic depression, and thus might be a potentially effective treatment for chronic depression.

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#### **Advances in CBT for Perfectionism**

**Roz Shafran, UCL Great Ormond Street Institute of Child Health, United Kingdom, & Tracey Wade, Flinders University, Australia**

There is substantial evidence showing that perfectionism is a transdiagnostic phenomenon that is elevated in people with a range of mental health disorders including anxiety disorders, depression and eating disorders. Perfectionism is also a risk factor for the development of psychopathology and can be associated with poorer therapeutic outcomes. There is now evidence for the efficacy of CBT for perfectionism delivered in a variety of formats and successful treatment of perfectionism can also reduce symptoms across a range of disorders. This workshop will focus on teaching clinicians the key skills required in the delivery of cutting-edge CBT for perfectionism as either a stand-alone intervention or as an adjunct to the treatment of a specific disorder.

#### **Key learning objectives**

The aims of this workshop are for participants to gain understanding and skills in the Assessment, Formulation and Treatment of CBT for Perfectionism including:

- How and when to address perfectionism in the context of other psychopathology
- Providing scientifically based psychoeducation e.g., around the usefulness of perfectionism for achievement
- Use of imagery and self-compassion techniques

#### **Implications for everyday clinical practice of CBT**

As perfectionism is a transdiagnostic process that cuts across anxiety disorders, eating disorders and depression, the workshop has relevance to many clients presenting for treatment and multiple areas of clinical work.

#### **References**

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- Shafran, R., Egan, S., & Wade, T. (2018). *Overcoming perfectionism: A self-help guide using cognitive behavioural techniques*, 2nd edition. London, UK: Robinson.



## **Treating the Fear of Cancer Recurrence: Conquer Fear**

**Louise Sharpe, The University of Sydney, Australia**

Fear of the cancer returning is a ubiquitous problem for cancer survivors and for some, the fear becomes so severe that they are disabled by it. Until recently, there was little evidence-based for treating fear of cancer recurrence. However, based on a cognitive-processing model of the development of clinically significant fear of cancer recurrence, the ConquerFear program was developed. The model suggests that for all people who face cancer, they challenge their values and find a new normal, but some get stuck and unable to do this. It is thought to be metacognitions, such as “Worrying will help me find a recurrence sooner and may save my life” or “This worry will cause me to become so stressed it will bring back my cancer”, lead people to get stuck in a cycle of vigilance and rumination that increase the fear of recurrence. As such, ConquerFear is a five session face-to-face intervention for fear of cancer recurrence, which includes components of acceptance and commitment therapy, meta-cognitive therapy and self-regulation theory. The program does not directly challenge the likelihood that the cancer will return, which for all survivors is a possibility. Rather the program teaches patients skills to help them observe, accept and not engage with intrusive thoughts about the cancer, including detached mindfulness, attention training and worry postponement. At the same time, survivors are helped to focus on important values in life and challenge beliefs about the benefits or harms of worry. In our randomized controlled trial of 222 cancer survivors, those who received ConquerFear improved significantly more on fear of cancer recurrence and a range of secondary outcomes in comparison to a relaxation training group matched for time and attention. This workshop will cover the nature of fear of cancer recurrence, the theoretical rationale for ConquerFear and the skills covered in the intervention manual. Participants will be provided with the intervention manual.

### **Key learning objectives**

1. To understand the nature of fear of cancer recurrence, particularly when it presents at clinical levels.
2. To understand the theoretical rationale as to why some people develop clinically significant levels of fear of cancer recurrence and others do not.
3. To gain experience and feel confident in delivering the therapy components to cancer patients.

### **Implications for everyday clinical practice of CBT**

Cancer is being increasingly identified early in the course of the disease and, partly due to early identification and partly due to improved treatments, patients are more commonly surviving for decades after their initial diagnosis. More than 50% of these patients report moderate or higher fears of their cancer recurring. Increasingly, these patients present to mental health services with comorbid anxiety difficulties, such as GAD or illness anxiety disorder, which are strongly focused on their fears of the cancer recurring and their inability to focus on the future. This workshop is therefore directed at those with a good working knowledge of cognitive and meta-cognitive therapies for anxiety, but will help them learn to adapt these skills specifically for dealing with patients who have been successfully treated for cancer, but live with the fear of that cancer returning.

### **References**

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## **Compassion-Focused and Vulnerability Training for Gender and Sexual Minority Clients**

**Matthew Skinta, Independent Practice, USA,**

Barriers to interpersonal relationships resulting from minority stress, including rejection sensitivity, internalized stigma, fear of compassion, self-criticism and shame, are common transdiagnostic sources of distress among gender and sexual minority (GSM) clients. Patterns of interpersonal guardedness increase isolation, reduce the quality of important social relationships, and shorten the duration of meaningful romantic relationships. These patterns, which derive from the reduced perception of safeness in the social environment, are also linked to an impaired ability to reassure the self in the face of setbacks. Data are increasingly showing that they also predict reduced physical and mental health. Novel interventions, such as functional analytic psychotherapy (FAP) and compassion focused therapy (CFT), offer process-oriented approaches that can be implemented independently or alongside CBT protocols targeting presenting problems to increase client's interpersonal skills and enhance the capacity for vulnerable, authentic and compassionate relationships with oneself and others.

The goal of the FAP + CFT approach that is outlined in the present workshop consists of three components: (i) Providing GSM clients with information about how their evolved brain and mind processes and their history, including exposure to bias in the form of minority stress, impacts giving and receiving warmth, care and compassion in relationships. (ii) Using the therapeutic approach to model a warm, secure base to experiment with vulnerable behaviors to explore the difficult emotions that arise in trying new interpersonal behaviors. (iii) The introduction of exercises that allow a client to build intra-personal and interpersonal skills to deal with self-criticism, shame and rejection sensitivity, and generalize new behaviors outside of the therapy room.

### **Key learning objectives**

1. Understanding a GSM client's difficulties through the lens of the evolutionary model (the notion of 'tricky mind/brain', the evolved emotion regulation systems and motivations, and how their imbalance is linked to mental health difficulties).
2. Conceptualizing how patterns resulting from minority stress may be conceptualized as in-session client behaviors.
3. Explaining the relationship between the development of a minority sexual orientation and gender identity and the experience of shame and self-criticism.
4. Practicing the use of therapeutic warmth, genuineness and compassion to facilitate and reinforce in-session behavioral change.
5. Helping the client to develop compassion for the self and for others, and to open up to the compassion from others as a way to deal with shame and self-criticism.

### **Implications for everyday clinical practice of CBT**

The incorporation of FAP and CFT skills in psychotherapy with GSM clients may enhance psychotherapy outcomes regardless of diagnosis. This is due to both the transdiagnostic aspects of minority stress, as well as shame, such that both processes lead to greater psychological distress and a greater likelihood of recidivism of existing psychological difficulties. Enhancing access to meaningful connection within existing relationships or creating a context for new relationships to flourish would likely be beneficial and enhance outcomes regardless of the specific diagnosis a client has presented to care with, and promote resilience in the face of future stressors.

## References

- Skinta, M. D., Hoeflein, B., Muñoz-Martínez, A. M., & Rincón, C. L. (2018). Responding to gender and sexual minority stress with functional analytic psychotherapy. *Psychotherapy*, 55(1), 63.
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## Conceptualising and Treating High-Risk and Complexity: What Does Dialectical Behaviour Therapy Have to Offer?

**Michaela Swales, Bangor University, United Kingdom**

Severity of mental health problems presenting to services appears to be on the rise. Suicidal and self-harm behaviours are increasingly frequent; repetition and use of multiple methods of harm is a common issue for staff to address in both adult and child & adolescent mental health contexts. Dialectical Behaviour Therapy (DBT) was the first cognitive-behavioural treatment to demonstrate efficacy in the treatment of personality disorders. Initially developed as a treatment for repetitive suicidal and self-harm behaviours in adult women with a diagnosis of Borderline Personality disorder (BPD) (Linehan, 1993), DBT is considered the best tested of the treatments for BPD (Stoffers et al, 2013) and has been adapted for use with a range of client groups (Swales, 2019). Studies in routine clinical practice (Swales, et al, 2016; Flynn et al, 2018) indicate that these outcomes are also deliverable outside of clinical trials. This workshop will highlight aspects of DBT that may relate to its effectiveness in cases of high-risk and complexity and consider what these aspects of the treatment may tell us about working with clients in these circumstances.

### Key learning objectives

- To understand the three theories underpinning DBT's conceptualization of client problems
- To understand the application of a targeted approach to risk and complexity within DBT
- To understand the main treatment strategies within DBT: problem-solving and validation
- To experience applying dialectical approaches to clinical problems.
- To experience the stylistic strategies of DBT and to understand them from a behavioural perspective

### Implications for everyday clinical practice of CBT

Whilst DBT is a complex integrated psychological therapy that was developed to address a particular set of difficulties, the principles that it uses can be deployed flexibly to address any circumstances presenting with complexity and high risk. Therapists attending this workshop will understand both what DBT is and also how principles from it can be use more widely.

## References

- Linehan, M. M. (1993). *Cognitive-behavioral treatment for borderline personality disorder*. New York Guilford.
- Swales, M. (2019). *Oxford Handbook of Dialectical Behaviour Therapy*. Oxford: OUP.
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## iMAGery focused therapy for Psychosis (iMAPS)

**Christopher Taylor, Pennine Care NHS Foundation Trust & The University of Manchester, United Kingdom**

Intrusive mental imagery and negative beliefs about self and others are frequently reported problems for individuals who experience psychosis, but there are few treatment approaches, which have specifically targeted these. Intrusive mental images and negative schema have been identified as potential maintaining factors for persecutory delusions. These can range from paranoia related recurrent intrusive images (e.g. being attacked by others, being followed by unknown figures who mean you harm) from the past or "flash-forward" future paranoia related intrusive mental images. In this workshop, we will cover clinical issues and adaptations of an imagery focused approach for persecutory delusions (Taylor et al. 2018). Drawing on a number of sources including a systematic literature review, a qualitative study exploring core beliefs, an experience sampling study and techniques from existing manuals and approaches, we adapted these imagery approaches to work with images and schema. This workshop outlines the use of safe place images, transforming negative imagery, imagery rescripting of past traumatic events, rescripting "flashforward" intrusive mental images and using positive imagery.

### Key learning objectives

The workshop will:

1. examine role of schemas and imagery in psychosis
2. introduce assessment of images and schema and formulation of imagery in psychosis
3. demonstrate and practice using imagery techniques, including imagery rescripting in psychosis

### Implications for everyday clinical practice of CBT

The greater use of imagery techniques in the practice of CBT for Psychosis for those who attend.

## References

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## Cognitively Focused Treatment for OCD in the Context of Comorbid Mood and Anxiety Disorders

**Maureen Whittal, Vancouver CBT Centre and University of British Columbia, Canada**

OCD is a common problem with a heterogenous presentation. Comorbidity is the rule rather than the exception. Mood disorders and a select number of anxiety disorders (separation, social, and generalized) are the most common comorbidities. It is unclear if comorbidity impacts treatment outcome but this is likely dependent upon the severity and number of the comorbid conditions. In most cases the presence of comorbidity does not substantially alter the treatment plan or its application. However, having the flexibility to address comorbidity within

the confines of an empirically supported OCD treatment protocol would be a helpful clinical tool. The initial part of this workshop will focus on addressing comorbid anxiety and mood disorders when present to a substantial degree that could interfere with OCD treatment. The bulk of the workshop will be focused on explication of a cognitively focused approach to OCD treatment. Cognitive approaches to OCD treatment date back approximately 20 years. They are equally effective compared to the previous gold standard psychological treatment of exposure and response prevention (ERP) and there is some suggestion that they are more acceptable to participants resulting in lower refusal and dropout rates. The appraisal model will be introduced and cognitive strategies to address appraisals related to the maintenance of OCD (e.g., overimportance and need to control thoughts, overestimation of threat and inflated responsibility) will be illustrated.

#### **Key learning objectives**

1. How to conceptualize the OCD presenting problem in the context of comorbid anxiety and depression
2. How to present the cognitive (appraisal) model for maintenance of OCD
3. Learning strategies to address overimportance of thoughts and need to control thoughts in addition to overestimations of threat and inflated responsibility as well as perfectionism and certainty

#### **Implications for everyday clinical practice of CBT**

OCD has a heterogeneous and often complex clinical presentation. Cognitive approaches to treatment are equally effective as the gold standard of exposure and response prevention and may result in less refusal and drop out thereby increasing effectiveness rates. Given the extensive comorbidity that occurs with primary OCD, it would be helpful to clinicians to learn how to flexibly apply empirically supported OCD protocols taking into account comorbid mood and anxiety problems.

#### **References**

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#### **Comprehensive Behavioral Intervention for Tics**

##### **Douglas Woods, Marquette University, USA, & Matthew Capriotti, San Jose State University, USA**

Tourette Syndrome (TS) is a neurobehavioral condition consisting of multiple motor and vocal tics that are presumably due to failed inhibition within cortical-striatal-cortical motor pathways. Efficacious psychotropic medications are available for treating tics, but they often produce unwanted side effects that deter many from using them. Comprehensive Behavioral Intervention for Tics (CBIT) is a behavioral treatment package that produces treatment effects similar in size to those seen with medication, but without appreciable side effects. Bolstered by 45 years of research evidence, behavior therapy (e.g., CBIT) is now recommended as the first-line treatment for TS in Europe, Canada, and the U.S. However, many, if not most, patients with TS are unable to access behavioral treatment due to a lack of trained providers trained in evidence-based behavioral interventions for tic disorders.

In the current workshop, the presenters will describe CBIT and other relevant interventions used in the treatment of children and adults with TS (e.g., exposure and response prevention). In addition to learning CBIT's core therapeutic techniques, presenters will overview diagnostic complexities associated with tic disorders, discuss the underlying theory for behavioral intervention. Presenters will overview research relevant to the behavioral model on which CBIT is based, and findings on CBIT's efficacy and effectiveness. Various instructional technologies will be employed including didactic instruction, videotaped samples of actual treatment, and role-play demonstrations.

#### **Key learning objectives**

1. Attendees will recognize tic disorders and describe their key phenomenological features
2. Attendees will describe the core elements of behavior therapy for tic disorders and identify their application to children with tics.
3. Attendees will be exposed to the evidence base supporting the efficacy of behavior therapy for tic disorders.

#### **Implications for everyday clinical practice of CBT**

Attendees will gain exposure to evidence-based strategies for treating tic disorders, which will be directly relevant to clinical practice. The CBIT intervention is behavioral in nature and fits clearly within the scope of CBT.

#### **References**

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## **IN-CONGRESS WORKSHOPS: GERMAN**

### **Zwischenmenschliche Baustellen im Therapiezimmer: Die Behandlung interpersoneller Probleme in der Einzel- und Gruppentherapie**

#### **Anne Guhn, Charité – Universitätsmedizin Berlin, Deutschland**

Dieser Workshop richtet sich an alle Therapeuten\*innen, die ihre Methodenvielfalt in der Arbeit mit Klient\*innen mit interpersonellen Störungen erweitern wollen.

Schwierigkeiten in zwischenmenschlichen Beziehungen bis hin zur chronischen Einsamkeit sind ein zentrales Problem verschiedener psychischer Störungen. Dies trifft nicht nur auf Patient\*innen mit Persönlichkeitsstörungen zu, denen per definitionem interpersonelle Probleme inhärent sind, sondern auch auf Patient\*innen mit affektiven Störungen, sozialen Ängsten oder Abhängigkeitserkrankungen. Die Interpersonelle Theorie betrachtet rigide, nicht an die Situation angepasste, oder extreme Verhaltensweisen, die sich in einem unangemessen starken Ausdruck von Verhaltensweisen zeigen, als Ursache für Unzufriedenheit und Konflikte in Beziehungen, die sekundär zur Entstehung und Aufrechterhaltung von psychischen Störungen führen.

## **Lernziele**

Das Kiesler Kreis Training ist ein transdiagnostisches Fertigkeitentraining, das auf die Überwindung rigider und extremer Verhaltensweisen abzielt. Es basiert auf einem integrativen Modell zur Entstehung und Aufrechterhaltung interpersoneller Probleme, das im Rahmen des Cognitive Behavioral Analysis System of Psychotherapy (CBASP, McCullough) für die chronische Depression entwickelt und im Rahmen des Trainings für weitere psychische Störungen, bei denen interpersonelle Probleme eine Rolle spielen, adaptiert wurde.

Dieser Workshop widmet sich

1. der Erarbeitung eines interpersonellen Störungsmodells unter Einbezug der individuellen Lerngeschichte,
2. der Bedeutung der Therapeut-Patient-Beziehung zur Diagnostik interpersoneller Probleme,
3. sowie der Überwindung interpersoneller Probleme durch korrigierende Beziehungserfahrungen in der Gruppen- und Einzeltherapie.

Hierzu werden die fünf Module des Trainings (Kennenlernen des Kiesler Kreis Modells, nonverbale und verbale Kommunikation, Konflikt- und Empathietraining) vorgestellt und spezifische Methoden eingeübt.

Workshopteilnehmer\*innen werden befähigt, das Kiesler Kreis Modell anzuwenden, um

1. interpersonelle Probleme diagnostisch einzuordnen und interpersonelle Fertigkeiten zu trainieren
2. schwierige Therapiesituationen zu identifizieren und therapeutisch zu nutzen
3. disziplinierte persönliche Rückmeldungen durchzuführen, um korrigierende Beziehungserfahrungen innerhalb der therapeutischen Beziehung(en) zu ermöglichen.

## **Bedeutung für die klinische Praxis der KVT**

Das Kiesler Kreis Training zur Verbesserung interpersoneller Fertigkeiten ist transdiagnostisch und methodenintegrativ als Augmentationstherapie für die Einzel- und Gruppentherapie konzipiert. Der Fokus auf auslösenden und aufrechterhaltenden Faktoren im Rahmen des interpersonellen Störungsmodells basiert auf den Prinzipien der KVT und lässt sich insofern schnell und einfach für diverse Störungsbilder einsetzen. Darüber hinaus findet der gezielte Einsatz therapeutischer Selbstöffnung unter Nutzung psychodynamische Konzepte Anwendung. Das Kiesler Kreis Training arbeitet demnach schulenintegrativ wie andere Verfahren der Dritten Welle der Verhaltenstherapie.

## **Literatur**

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## **Lebensrückblickinterventionen mit Älteren**

### **Barbara Rabaioli-Fischer, Psychotherapeutische Praxis, Deutschland**

Lebensrückblickinterventionen gewinnen in letzter Zeit immer mehr an Bedeutung, speziell bei der Arbeit mit Älteren, Traumatisierten und chronisch kranken Patienten (Märcker 2012, Rabaioli-Fischer 2015). Ziel dieser Interventionen ist, dass Patientinnen ihre Lebenswege bzw. Biografien im Kontext einer aktuellen Problemlage besser nachvollziehen können. Die Vergegenwärtigung positiver und negativer Lebensereignisse öffnet den Blick für Ressourcen, erworbene Fähigkeiten und ein erweitertes Selbstbild. Lösungsorientierung und Auffinden von Resilienzfaktoren wird möglich. Im Workshop werden verschiedenen Varianten der Lebensrückblickverfahren erläutert und an Patientenbeispielen aufgezeigt.

## **Lernziele**

1. Lebensrückblick,
2. Alterspsychotherapie,
3. Traumaverarbeitung,
4. Ressourcenaktivierung bei Patienten.

## **Bedeutung für die klinische Praxis der KVT**

Einführung eines neuen Verfahrens, das sich besonders in der Arbeit mit > 65 jährigen Patienten in den letzten Jahren bewährt hat und somit die Verarbeitungsmöglichkeiten von kritischen Lebensereignissen, Traumata und chronischen Erkrankungen sowie das Auffinden von Ressourcen bei diesen Patienten gut ermöglicht.

## **Literatur**

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Rabaioli-Fischer (2015) Biografisches Arbeiten und Lebensrückblick, Hogrefe, Göttingen

## **Prozessbasierte kognitive Therapie bei körperdysmorpher Störung**

### **Viktoria Ritter & Ulrich Stangier, Goethe-Universität Frankfurt, Deutschland**

Die körperdysmorphe Störung (KDS) ist gekennzeichnet durch die exzessive Beschäftigung mit einem oder mehreren wahrgenommenen Makeln in der äußeren Erscheinung, die für andere nicht oder allenfalls minimal erkennbar sind. Die Störung ist mit einem starken Leidensdruck verbunden und verbreiteter als ursprünglich angenommen. Im Workshop wird ein kurzer Überblick über Störungsbild und Ursachen gegeben. Im Mittelpunkt stehen prozessbasierte kognitive Interventionsansätze, die eine Veränderung zentraler aufrechterhaltender Verarbeitungsprozesse (z.B. selektive Selbstaufmerksamkeit, detailorientierte Wahrnehmung, verzerrte mentale Vorstellungsbilder, Erinnerungen, Schemata) ermöglichen. Anhand einer individuellen Fallkonzeption werden Interventionen wie Distanzierungsbungen, Wahrnehmungstraining, Videofeedback, Imagery Rescripting, und Verhaltensexperimente vorgestellt, die sich als hilfreich erwiesen haben und aktuell in vollem Umfang im Rahmen einer randomisierten kontrollierten Psychotherapiestudie für die KDS evaluiert werden. Das Vorgehen wird praxisnah anhand von Videoaufnahmen, Rollenspielen und Übungen veranschaulicht.

## **Lernziele**

Der Workshop präsentiert einen umfassenden prozessbasierten kognitiven Behandlungsansatz, der auf die Veränderung aussensbezogener kognitiver und emotionaler Prozesse fokussiert (z.B. selektive Selbst/Makelaufmerksamkeit, detailorientierte Wahrnehmung, verzerrte mentale Vorstellungsbilder, Erinnerungen, Schemata, Sicherheitsverhaltensweisen/Kontrollrituale). Der Workshop beinhaltet:

1. eine kurze Einführung in Ätiologie und Symptomatik,
2. eine individuelle Fallkonzeption zum Verständnis der aufrechterhaltenden Prozesse bei KDS und

3. spezifische kognitive Interventionen angepasst an die individuellen Prozesse der Patienten.

#### **Bedeutung für die klinische Praxis der KVT**

Der vorgestellte Behandlungsansatz kann in der klinischen Praxis angewandt werden.

#### **References**

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#### **Internet- und mobilbasierte Versorgungskonzepte in der Praxis: eine 360°-Perspektive**

**Sandra Schlicker & Ingrid Titzler, Friedrich-Alexander-Universität Erlangen-Nürnberg, Deutschland**

Die Klinische Psychologie und Psychotherapie versteht unter internet- und mobil-basierten Behandlungsangeboten die Verwendung neuer Medien zur Bereitstellung klinisch-psychologischer Interventionen zur Förderung der psychischen Gesundheit und der Prävention und Behandlung psychischer und körperlicher Erkrankungen. Vor dem Hintergrund langer Wartezeiten auf einen Therapieplatz und insbesondere der Unterversorgung in ländlichen Gebieten können E-Mental Health Angebote ein Ansatz zur Überwindung von Versorgungsengpässen sein. Die Möglichkeiten, über das Internet zugängliche web- und/oder mobil-basierte Anwendungen zur psychosozialen Versorgung zu nutzen, sind vielfältig. Sie reichen von Selbsthilfe-Interventionen mit oder ohne therapeutische Begleitung über online aufbereitete Therapieeinheiten, integriert in klassische psychotherapeutische Konzepte vor Ort, bis hin zu synchroner online-basierter Therapie mittels Videokonferenz.

Im Rahmen des Workshops soll zunächst ein Überblick über Anwendungsformen (Prävention, Behandlung, Nachsorge), Zielgruppen und Indikationsbereiche (z.B. Psychische Erkrankungen, Komorbiditäten), Settings (ambulant, stationär, Reha) sowie der wissenschaftlichen Wirksamkeit gegeben werden. Um den Theorie-Praxis-Transfer zu fördern, wird auch auf Forschungsergebnisse zur Implementation und Anwendung eingegangen (z.B. qualitative Studien aus Behandler- und Patientenperspektive). Weiterhin werden Beispiele für standardisierte und modularisierte online-basierte Interventionen mit unterschiedlicher Guidance sowie ein Blended-Konzept (eine internet-basierte KVT plus Therapiesitzungen vor Ort) präsentiert und zur Veranschaulichung demonstriert werden. Die Teilnehmer erhalten darüber hinaus die Möglichkeit, selbst ein internet-basiertes Behandlungsprogramm aus der Perspektive von Patienten und Behandlern auszuprobieren und ihre Erfahrungen im Workshop aus einer 360-Grad-Perspektive in Kleingruppen und im Plenum zu diskutieren. Die Auseinandersetzung mit den therapeutischen Methoden (z.B. schriftliches Feedback auf Online-Übungen durch Trainer, iCBT Behandlungsmanual, Falldarstellungen) soll durch Gruppenübungen intensiviert werden. Kritische Gesichtspunkte (z.B. Suizidalität, Verantwortlichkeit ≠ Erreichbarkeit 24/7, schwer belastete Patienten, Datenschutz) und wichtige Aspekte zur Durchführung (Chancen und Risiken der Guidance-Stufen, Supervisionskonzepte, Qualifikation der Trainer) stehen ebenfalls im Fokus des Workshops und sollen gemeinsam diskutiert werden.

#### **Lernziele**

Der Workshop möchte Perspektiven aus Forschung und Therapiepraxis verbinden, um Chancen und Risiken dieser neuen Versorgungsform zu beleuchten und Anwendungsfelder zu verdeutlichen. Die Teilnehmer sollen einen Überblick über die wissenschaftliche Evidenz und den Stand der Forschung und Entwicklung sowie vertiefte Kenntnisse über e-Mental Health Interventionen erlangen wie auch erste Erfahrungen und Einblicke in die Anwendung dieser innovativen Versorgungsform erhalten, um sich kritisch damit auseinanderzusetzen zu können.

#### **Bedeutung für die klinische Praxis der KVT**

Praktizierende Therapeuten erhalten einen Einblick in den Stand der Forschung und die Entwicklung von eMental Health Interventionen sowie das Wissen über derzeit verfügbare Angebote, die sie gegebenenfalls an geeignete Patienten weitergeben können. Konkrete Empfehlungen über die Passung von Intervention zu individuellem Patient können gegeben und Fragen des Patienten beantwortet werden. Kombinationsmöglichkeiten zwischen face-to-face Therapien und Online-Angeboten werden aufgezeigt. Die bereits jetzt und in naher Zukunft mögliche Integration von Online-Angeboten in den therapeutischen Alltag wird anhand von bereits laufenden Regelversorgungsprojekten konkretisiert.

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## SKILLS CLASSES (in the following order: English, German)

### SKILLS CLASSES: ENGLISH

#### Working Online with Older People

**Sarah Bateup, Ieso Digital Health, United Kingdom, & Ken Laidlaw, University of Exeter, United Kingdom**

Depression and anxiety are common and disabling disorders in older people (Schoevers et al., 2003). Yet in spite of evidence suggesting that older people with these conditions can respond well to treatment, there is a persistent lack of recognition and response from medical professionals (Overend et al., 2015). Few clinicians receive specific training on how to adapt CBT for older people. One method used to deliver CBT to older people is Internet Enabled CBT (Burch et al., 2017). Thirty BABCP accredited therapists, using IECBT, received training in how to adapt CBT for older people. This workshop will present three of the cases treated. Participants can expect to gain an overview of how to work effectively with older people and how online methods can be used with this patient group. There will be opportunities to participate in experiential exercises both online and face-to-face.

#### Key learning objectives

By the end of the workshop participants will be able to:

1. Understand how gerontological theories can be applied to CBT
2. Use an online platform to practice skills learnt in the workshop
3. Further develop skills in reflection 'in' and 'on' action, when working with an older person who presents with complexity, chronicity and co-morbidity. Participants will have the opportunity to request copies of their own therapy transcripts recorded as part of the experiential exercises in this workshop.

#### Implications for everyday clinical practice of CBT

Few clinicians receive specific training on how to adapt CBT for older people. It is anticipated that the population of people over the age of 60 will increase and that it will not be unusual for CBT therapists to treat people in their eighties, nineties or older. Further research is needed to understand how to adapt CBT protocols for this age group and CBT therapists need to have access relevant training in this important area.

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#### Individualized Metacognitive Therapy for Psychosis (MCT+): Treating Psychotic Symptoms with a One-on-One Metacognitive Approach

**Francesca Bohn Vitzthum, University Clinic of Hamburg-Eppendorf, Germany**

Psychological interventions are becoming increasingly important in the treatment of individuals with psychosis. Since 2018, Metacognitive Group Training (MCT) for patients with schizophrenia has been recommended by treatment guidelines in Germany, including those from the German Association for Psychiatry, Psychotherapy and Psychosomatics (DGPPN) and the German Psychological Association (DGP). The aim of the metacognitive group approach is to raise participants' awareness for cognitive and metacognitive distortions associated with the development and maintenance of delusions in patients with schizophrenia (e.g., hasty reasoning, overconfidence, incorrigibility and theory of mind deficits). Given the high prevalence of affective disorders among individuals with psychosis, and reflecting studies that patients often suffer most from affective symptoms, typical cognitive distortions associated with depression and low self-esteem are also addressed in MCT sessions.

MCT is a low-threshold therapeutic approach that is easy to implement and adapts a "backdoor approach" to the treatment of psychosis. Over the course of 10 modules, playful tasks and real-life examples are presented to make participants aware of the manifold negative consequences, of unhelpful cognitive biases, particularly with regard to the onset and maintenance of positive symptoms.

The adaptation of group MCT into Individualized Metacognitive Therapy for People with Psychosis (MCT+), was inspired by the current lack of psychotherapeutic treatment options for individuals with schizophrenia, as well as the reservation of many psychotherapist to work with these patients. MCT+ integrates metacognitive and cognitive behavioral techniques and components allowing for the treatment of individual problems and particularly delusions in a psychotherapeutic one-on-one-setting. Like group MCT, MCT+ is also a low-threshold therapy, so it can readily be used by professionals who are not (yet) highly experienced with this particular group of patients.

A current meta-analysis (Eichner & Berna, 2016, *Schizophrenia Bulletin*) reported significant effects for MCT on delusions, as well as positive symptoms in general at moderate effects. Patient acceptance of the training reached a large effect. Recent studies suggest that the approach also reduces psychotic symptoms at six months and even three years after treatment.

#### Key learning objectives

This skills class enables the participants to:

1. get an overview of the rationale, structure and clinical administration of MCT+
2. practice MCT+ exercises so that participants can readily implement MCT+ in their own clinical routine
3. use MCT+ strategies to easily engage in psychotherapeutic work with psychotic patients
4. use strategies to handle potentially problematic situations (e.g., CBT with patients who have acute psychotic symptoms)

#### Implications for everyday clinical practice of CBT

Low-threshold therapy approach to easily engage in psychotherapeutic work with psychotic patients.

#### References

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## **Using Couple-Focused Cognitive Behaviour Therapy for Long Term Conditions**

**Sarah Corrie & Michael Worrell, Central and North West London NHS Foundation Trust, United Kingdom**

In recent years, there has been a growing interest in the role of Cognitive Behavioural Couple Therapy (CBCT) as a treatment modality for long term conditions. This reflects in part the strong empirical evidence for CBCT more generally, both as a means of reducing couple distress and as a modality that can target psychopathology. The aim of this skills class is to provide a rationale for adopting a couple-focused approach and to introduce participants to some of the principal couple-focused interventions that can be applied to working with long term conditions. For those participants with pre-existing experience of delivering couple therapy, this skills class will enhance their knowledge and ability to work with couples where a long term condition is comorbid with couple distress and psychopathology. For therapists who work primarily with individuals, this workshop provides guidance on how to include a partner in treatment where at least one partner has a long term health condition, regardless of whether or not relationship distress is a feature of the clinical presentation.

### **Key learning objectives**

Through participating in the workshop, participants will be able to:

1. Understand the rationale for adopting a couple-focused approach when working with long-term conditions;
2. Assess when a couple focused intervention is likely to be beneficial;
3. Understand and use communication skills that build emotional intimacy and mutual support in the context of living with a long term health condition;
4. Understand and use communication skills that facilitate effective problem-solving and decision-making related to coping with a long-term condition.

### **Implications for everyday clinical practice of CBT**

Cognitive behavioural therapies are being developed to address the needs of an increasingly broad range of clinical presentations and human need. Innovations in the treatment and management of long term conditions is one such example. The need for creative and effective approaches in this often complex area paves the way for the greater use of couple-focused interventions. CBCT is an empirically-supported intervention that has much to contribute to working with clients living with a long term condition. This skills class equips participants with some core knowledge and skills that will enable them to work more confidently in this specialism and potentially, to improve their clinical outcomes with this client group.

### **References**

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## **Family-Based Healthy Weight Coaching**

**Linda Craighead, Emory University, USA**

Childhood obesity has become an increasingly significant health issue and recent APA guidelines for childhood obesity treatment recommend family-based approaches and inclusion of mindful eating strategies. Family-based Healthy Weight Coaching (FB-HWC) was developed as an accessible intervention to help parents engage in family lifestyle change to promote healthy weight management for mild to moderately overweight children and those at risk due to family history. This approach can address maladaptive eating habits at an early stage in their development in settings such as integrated behavioral health where brief intervention is needed and typically preferred, or it can be incorporated within more intensive programs. The intervention was adapted from Appetite Awareness Training (AAT), a program originally designed and evaluated for binge eating, bulimia and weight management for adults. AAT aims to restore a more natural feeling of control over eating through self-monitoring appetite so that individuals become more aware of, and then use, their internal cues of moderate hunger and moderate fullness to regulate eating. AAT discourages "getting too hungry" as well as "getting too full", promoting normalization of amounts eaten before targeting changes in food type. In FB-HWC, parents are taught the basic AAT concepts and encouraged to model adaptive self- instruction around self-regulation of eating. A child's storybook (aimed at ages 8 and up) is provided for the child (introduced by the therapist or the parent) which serves to promote mindfulness of appetite cues and reinforce the child's own self-awareness. Parents model and reinforce strategies to reduce mindless eating and limit high density food choices. Fun, child-friendly metaphors are used to present the goal of healthy eating and weight maintenance and to emphasize the positive -feeling good after eating - more than achieving weight goals. Cases of families with target children ranging in age from 8 to 14 will be described to show how FB-HWC can be implemented within a brief treatment model. The incorporation of the principles and use of the metaphor within a pediatric obesity clinic in Iceland will be described to illustrate its use in a more intensive program. A brief introduction to a group adaptation targeting young adult women with body image and weight concerns that is currently being piloted will also be provided

### **Key learning objectives**

By the end of class, participants will be able to

1. Understand the rationale for Family-based Healthy Weight Coaching and be able to present the rationale to parents and/or to a child.
2. Be able to coach parents on how to model Mindful Eating for their children (use of either a self-monitoring app or a mental monitoring strategy).
3. Describe the child-friendly metaphors used in the intervention and coach parents on how to use those metaphors when implementing changes in family eating patterns.
4. Identify the most common parent concerns and difficulties in implementing healthy behavior change in the home.

### **Implications for everyday clinical practice of CBT**

Therapists and other providers will be familiar with materials available and strategies to use with families with concerns about their children's maladaptive eating habits or weight status/health. Therapists will be able to use the materials in a supplementary (primarily parent-guided) way when other concerns are a higher priority. It also offers health providers a brief intervention option to address some common parent concerns about child eating and weight. The approach can be incorporated within more intensive CBT obesity treatment to enhance parent and child understanding and acceptance of treatment goals.

### **References**

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### **Schematherapy for Adolescents and Young Adults After Experiencing Peer Victimization**

**Eva Dresbach, Private Practice, Arbeitsgruppe SELBST, University Clinic of Cologne, Germany**

Participants: Clinical practitioners working with adolescents and young adults. Basic experience in Schematherapy is required.

Victimization by peers is a painful social experience. Children and adolescents who are excluded, rejected or bullied by their peers are found to have lower self-esteem, and show higher levels of anxiety, depression and somatic symptoms. Long-term consequences may even include self-destructive or aggressive behavior and suicidal ideation.

From a schematherapist's perspective, victimization by peers during childhood and adolescence leads to frustration of the young person's emotional needs for self-esteem and affiliation to a supporting peer-group. The experience increases the risk of schema-development, especially of schemas as Defectiveness-Shame, Isolation, Subjugation, Self-Sacrifice and Approval-Seeking. In consequence a Victimized Child-Mode can develop, the Angry Child-Mode can be either suppressed or expressed in a socially inappropriate manner. Dysfunctional peer-messages can result in a Punitive Peer-Mode and provoke dysfunctional Coping-Modes. Finding oneself being victimized by peers activates coping-strategies as self-blame, withdrawal or (passive-)aggressive reactions in social situations. Because of their coping, victims do not act socially competent and are more likely to experience further rejection or victimization. Also, not being integrated in a peer-group, they have less opportunities to improve and refine their social skills. These interpersonal problems may persist during adulthood. The goal of Schematherapy interventions is to reduce schemas and coping-behavior by identifying and addressing the emotional needs of the Victimized Child-Mode as well as combating the Punitive Peer-Mode.

#### **Key learning objectives**

1. Recognizing the Punitive-Peer-Mode in adolescent or adult patients.
2. Learning and practicing how to explore and combat the Punitive-Peer-Mode and to reach and care for the Victimized Child-Mode and the - suppressed - Angry Child-Mode.
3. Developing a modification of social skills training by paying attention to modes and supporting the Competent Mode to build healthy friendships.

#### **Implications for everyday clinical practice of CBT**

Offering an innovative approach in treating young patients' interpersonal problems using Schematherapy conceptualization and methods combined with social skills training.

#### **References**

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### **Learning How to Feel Good: An Introduction to Augmented Depression Therapy**

**Barney Dunn, Mood Disorders Centre, University of Exeter, United Kingdom**

The primary focus in evidence based psychotherapies for depression has been on down-regulating negative thinking and feeling. However, it is increasingly realised that anhedonia, a reduction in the ability to experience pleasure, is also central to the onset and maintenance of acute depression. Residual anhedonia symptoms out of episode make individuals more likely to relapse in the future. Moreover, most clients come to therapy wanting to build wellbeing – a sense of meaning, pleasure and social connection – in addition to reducing their symptoms of depression.

Augmented Depression Therapy (ADepT) has been co-designed alongside clients and clinicians to systematically build positivity. It targets (potentially transdiagnostic) mechanisms identified in basic science research that inhibit wellbeing and maintain anhedonia. ADepT helps clients set and work towards valued life goals, then formulate and overcome how their depression stops them from thriving (making the most of potential opportunities) and being resilient (overcoming potential challenges) along the way. ADepT also supports clients to develop and follow a long term wellbeing plan to help them continue to flourish after therapy has completed.

The workshop will give an introductory overview of ADepT, with particular emphasis on developing ways to build and maintain a positive therapeutic alliance with depressed clients (including use of solution-focused questioning, focusing on pockets of resilience and thriving rather than areas of difficulty, and use of a warm, humorous and human interpersonal style).

#### **Key learning objectives**

1. understand rationale and elements of Augmented Depression therapy
2. reflect on adaptations necessary to therapeutic interpersonal style when working with anhedonic clients
3. developed skills to build a positive therapeutic alliance with depressed clients

#### **Implications for everyday clinical practice of CBT**

Better targetting anhedonia and building wellbeing is likely to lead to improved acute and long term treatment outcomes when using CBT to treat depression and related depression.

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## **Incorporating Cognitive Behavior and Dialectical Behavior Therapy for the Treatment of Eating Disorders**

**Fragiskos Gonidakis & Diana Charila, National and Kapodistrian University of Athens, Greece**

Dialectical Behaviour Therapy (DBT), an effective treatment for borderline personality disorder has been found to be effective when adapted for eating disorders (ED) either restrictive or bulimic type. On the other hand, CBT has been a first choice of therapy for most ED. But what about the incorporation of these two treatment modalities especially for borderline patients that suffer from an ED? During the symposium we will try to explore two areas that the incorporation of DBT and CBT could prove helpful:

- a. Anorexia Nervosa binge/purge type. The adaptation of DBT incorporates CBT strategies used for nutrition and weight restoration but also puts an equal emphasis on emotion regulation
- b. Bulimia Nervosa. Although CBT is highly effective in the treatment of BN there is a number of patients that do not respond to CBT treatment due to intense difficulties with emotion regulation.

### **Key learning objectives**

1. By the end of the class, participants will be able to:
2. Comprehend the relation between emotional dysregulation and disordered eating behavior
3. Familiarize themselves with key components and strategies of DBT for ED.
4. Make a therapeutic plan incorporating CBT and DBT strategies.
5. Use these strategies in role playing case vignettes presented to them

### **Implications for everyday clinical practice of CBT**

For CBT therapists treating eating disorders patients it will give them extra skills to use in their everyday clinical practice in order to deal effectively with emotional dysregulation

For DBT therapists treating borderline personality disorders that report eating disorder symptomatology it will provide them with an insight on the CBT strategies for nutritional and weight restoration and reducing overvalued ideas concerning body weight and size.

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## **Regret: A Cognitive Behavior Therapy Approach**

**Robert Leahy, American Institute for Cognitive Therapy, USA**

Although regret is a central element in depression, procrastination, indecision, self-criticism, worry, rumination, and avoidance, it has received little attention in the CBT literature. In contrast, regret has been a focus in decision theory and research indicating that when people make decisions they often anticipate the possibility of postdecision regret and, therefore, attempt to minimize this experience. Regret is not always a negative process. Insufficient regret processes result in impulsive behavior and failure to learn from past decisions. During manic episodes there is underutilization of anticipatory regret. We will view regret as a self-regulatory process where too much regret or too little regret may be problematic. Although people often believe that they will more likely regret taking new action, research indicates over time there is greater regret for actions not taken. Affective forecasting—that is, overprediction of emotion following events in the future—often contributes to anticipatory regret, with predictions leading to beliefs in greater impact of events than is warranted by the facts. In addition, some decision makers have idealized beliefs about decisions, rejecting ambivalence as an inevitable part of the tradeoffs underlying decision making under uncertainty. Specific decision styles are more likely to contribute to regret, including maximization, emotional perfectionism, intolerance of uncertainty, and overvaluation of "more" information rather than relevant information. In this presentation we will examine how regret is linked to hindsight bias, maximization rather than satisfaction strategies, intolerance of uncertainty, rejection of ambivalence, refusal to accept tradeoffs, excessive information demands, and ruminative processes. Specific techniques will be elaborated to balance regret with acceptance, present utility, and flexibility to enhance more pragmatic decision processes, reverse ruminative focus on the past, and replace self-criticism with adaptive self-correction.

### **Key learning objectives**

1. Identify the role of anticipatory and retrospective regret in decision making and how this impacts procrastination, risk aversion, indecision, rumination, and self-criticism;
2. Explain how to assist clients in accepting uncertainty and risk in order to make more pragmatic and effective decisions;
3. Describe how to assist clients in reducing postdecision regret, self-criticism and rumination and accept tradeoffs in making decisions while enhancing satisfaction with imperfect outcomes.

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## **Treatment-Induced Rituals: How to Undo Treatment when CBT Becomes Ritualized in OCD**

**Lata McGinn, Yeshiva University, USA**

OCD is a complex, heterogeneous, complex condition with high rates of misdiagnosis, which can have serious treatment consequences (Glazier, Swing, & McGinn, 2015; McGinn, 2015). Although CBT is extremely effective in treating OCD (McGinn, 2015; McGinn & Sanderson, 1999), many patients do not respond to treatment. Even patients who achieve a therapeutic response may still be symptomatic. Many provider and client factors negatively impact treatment outcome. One factor that may impact treatment outcome is the nature of OCD

itself. Symptoms are often a moving target in treatment and clinicians often describe the treatment as playing therapeutic catch-up. In many cases, the treatment strategies themselves become ritualized. Clinicians and patients often either elect not to use certain strategies for fear that they may become ritualized (cognitive restructuring) or fail to realize that other strategies may also convert into compulsive rituals (e.g. Exposure and Response Prevention), thereby limiting their efficacy. Participants will learn how CBT strategies become ritualized and learn how to appropriately identify, conduct an appropriate case formulation, and intervene effectively when they do. By the end of this skills class, participants will be able to apply what they have learnt in the class to their practice in treating OCD and generalize some of the principles to other anxiety disorders.

#### **Key learning objectives**

By the end of the class, participants will be able to:

1. Understand how various CBT strategies become ritualized and their impact on treatment
2. Learn how to assess and conduct a case formulation to determine if CBT strategies are being used ritualistically.
3. Learn how to pivot and modify CBT when strategies themselves become ritualized.
4. Learn how to anticipate effects and intervene early.

#### **Implications for everyday clinical practice of CBT**

The potential implications for everyday practice of CBT are significant given that attendees will learn how to widen their toolbox to effectively use strategies they may not typically use (e.g., cognitive strategies), and will learn how to re-pivot when strategies typically used (exposure and response prevention) also become part of the client's compulsive rituals, to ensure they are used effectively.

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### **Introduction to the Coping Long Term with Active Suicide Program (CLASP)**

**Ivan Miller, Lauren Weinstock, & Brandon Gaudiano, Brown University, USA**

Suicidal behavior is a major public health problem in this country. Despite the significance of this issue, relatively few interventions to reduce suicidal behavior have been developed and empirically tested/validated.

We have developed a new intervention called Coping Long Term with Active Suicide Program (CLASP) that targets multiple risk factors for suicide using a unique combination of formats (in-person and telephone) and therapeutic strategies (values-goals clarification, problem solving, significant other support). The CLASP intervention is an adjunctive intervention specifically designed to reduce subsequent suicidal behavior in high risk populations during times of acute risk or transition. CLASP has three major components: 1) three individual, in-person meetings, 2) one significant other/family meeting and 3) and 11 brief (15-30 min) phone contacts with the patient and his/her significant other. The strategies used in CLASP are adapted from two main therapeutic approaches: Acceptance and Commitment Therapy (ACT) and the McMaster Model of Family Functioning. Recent research has demonstrated that CLASP produces significant reductions in suicidal behavior in high risk patients transitioning from emergency departments and psychiatric inpatient units (see Miller et al 2016, 2017). This skills class will provide an overview of the CLASP intervention, intervention materials, case examples and empirical research, so that clinicians and researchers can consider utilizing this intervention in their own settings.

#### **Key learning objectives**

1. Obtain an in-depth understanding of the CLASP intervention, its components, and empirical research.
2. Appreciate the advantages and challenges of providing a telephone-based intervention to high-risk, potentially suicidal, individuals.
3. Understand how values-goals clarification strategies can be adapted to target suicidal behaviors.

#### **Implications for everyday clinical practice of CBT**

Suicide prevention is an important skill for all CBT providers. This skills class will provide examples of how specific suicide prevention skills can be integrated into routine CBT practice.

#### **References**

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### **How to Get Up and Running with CBT Training and Supervision: The CTP Model**

**Sanjay Rao, University of Ottawa, Canada, & Kristine Postma, Ottawa Institute of Cognitive Behavioural Therapy, Canada**

In most countries, CBT implementation lags behind clinical science. For instance models for PTSD training were evaluated through randomised controlled trials in the mid-90s but are still not freely available. This would apply to most common mental health disorders. The Improving Access to Psychological Therapies (IAPT) has been the world beacon in establishing training and implementation of CBT at the population level. Most countries may not be able to match the IAPT investment but still require an efficient model of CBT training and supervision. Bennett-Levy (2006) provided a reflective model of CBT supervision, and James et al. (2007) summarised the theories of supervision. The IAPT programme has a rigorous CBT curriculum with problem-specific models of intervention and classification of competencies. How can we utilise these to create an effective training and supervision programme even with the limitation of resources?

This workshop will provide

1. Theories of CBT learning from different perspectives
2. Understanding of CBT curriculum and competencies
3. Analysis of the CTP approach:
  - C learning (Condition and Conceptualisation)- Learning about the condition, problem or diagnosis including generic and specific CBT conceptualisation using a collaborative framework
  - T Learning (Techniques and Protocol) – Mastering specific techniques and treatment protocols. Mastery requires overlearning of skills and heuristics so that they are demonstrated with competence and ease

P Learning (Process)- Understanding of transdiagnostic processes and managing complex co-morbidities. This form of learning is at a meta-competency level to develop advanced practitioners of CBT

4. The structure of the supervision session which is focussed on experiential learning in every session
5. A perspective on how all the three waves of CBT can be combined in the training and supervision programme
6. Procedures to establish and assess competencies

#### **Key learning objectives**

1. Gain familiarity with the key knowledge and competencies required to practice gold standard CBT
2. How experienced therapists can enhance their learning to become effective trainers and supervisors
3. Use of the CTP model to problem solve issues in supervision
4. Ancillary strategies to help manage cognitions about learning
5. Managing supervision sessions to enhance experiential learning
6. Familiarity with low-cost distance technology available for training and supervision

#### **Implications for everyday clinical practice of CBT**

Optimism to take up a learning and development approach to CBT implementation. Template for ongoing learning of CBT.

Framework to provide effective supervision. Tools to integrate the 3 waves of CBT practice and training.

### **Assessing and Treating Prolonged Grief Disorder**

**Rita Rosner, Catholic University Eichstätt-Ingolstadt, Germany**

ICD-11 includes Prolonged Grief Disorder (PGD) as new diagnosis in the area of stress related disorders. Core symptoms of PGD are intense yearning and preoccupation with the loss, reactive distress symptoms, such as avoidance of memories of the deceased person and emotional numbing, as well as social/identity disruption, such as feeling detached or having difficulties trusting others. About 5% of mourners develop PGD. Normal grief, depression, Posttraumatic Stress Disorder and PGD can be distinguished reliably. Yet, disorders are often comorbid and specifically differentiating between normal but painful grief and PGD may be difficult. Theories of grief will be reviewed as well as successful interventions for PGD will be described. Based on the experiences with and outcomes of two randomized clinical trials I will present an overview of our outpatient manual. The intervention consists of three phases: In phase I patients receive psychoeducation concerning their prolonged grief symptoms. As prolonged grief patients are often ambivalent about treatment, motivation needs to be addressed. In phase II patients are exposed to their most distressing memories of the loss and its circumstances. Cognitive restructuring may be necessary if patients feel guilty or display other secondary emotions about the loss or going on with their lives. In phase III patients aim towards transformation of the loss to enable change.

#### **Key learning objectives**

1. to diagnose PGD
2. differentiate between painful but normal grief reactions and PGD
3. learn about interviews and questionnaires focusing on PGD.
4. know about the current status of treatment research
5. understand the principles of PGD-treatment

#### **Implications for everyday clinical practice of CBT**

Implement assessment of PGD, learn how to differentiate between depression and PGD and incorporate interventions.

#### **References**

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### **Cultural Adaptation of CBT with South Asian Clients with GAD**

**Mallika Sharma & NovRattan Sharma, Maharshi Dayanand University Rohtak, India**

Background: Cognitive Behaviour Therapy (CBT) which has developed in the west needs to consider cultural adaptation to the therapy when applied to clients from South Asian origin in order to make it effective. As European countries are now more culturally diverse, the need to adapt the treatments provided for mental health issues is also increasing. There have been a few studies who have provided some guidelines for the adaptation of CBT: Kuruvilla (2010), Kumar and Gupta (2012), Bhargava, Kumar and Gupta (2017). Gautam et al (2017) produced Clinical Practice Guidelines and reported that there was less literature on the efficacy of CBT in India. They advocated further studies on the efficacy and cost-effectiveness of CBT. We have made an effort to test these adaptations suggested by other researchers. The awareness of the culture, engagement and adjustment in therapy becomes a significant part of the adaptation process (Naeem et al, 2015). The participants will be able to apply the adaptation of CBT in their daily practice in general but also specifically in case of GAD.

#### **Key learning objectives**

By the end of the class, participants will be able to:

1. Develop an awareness of South-Asian culture that may affect the therapy.
2. Engage South-Asian clients in therapy to deliver more effective outcomes by being culturally sensitive.
3. Presenting formulation of GAD effectively to South-Asian clients.
4. Tailor the Dugas model for GAD for these clients.

#### **References**

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- Kumar, N. K., & Gupta, P. (2012). "Cognitive Behavioural Therapy in India: Adaptations, Beliefs and Challenges." In F. Naeem & D. Kingdon (Eds.), *CBT in Non-Western Cultures*. New York: Nova Science Publishers Inc
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### **Using Online Programmes and Apps to Enhance Clinical Practice for Child and Adolescent Anxiety and Depression**

**Susan Spence, Griffith University, Australia**

Despite the high prevalence of emotional and behaviour problems in children and adolescents, the majority do not receive professional mental health services and their issues go untreated. In reality we do not have sufficient numbers of mental health professionals to meet the demand. New technologies involving internet-delivered CBT programs and mobile applications ("Apps") have been proposed as one method that could increase young people's access to treatment. There is a good deal of evidence that these new approaches can produce significant improvements in mental health and emotional wellbeing when support by a clinician. Nevertheless, many clinicians are reluctant, for a variety of reasons, to make use of these interventions in their practice. This skills class will focus on developing practitioner skills and knowledge about using new technologies to support and enhance their clinical practice in the treatment of anxiety and depression in young people. It will briefly outline, using multi-media examples, some of the relevant online programs and "Apps" and examine the empirical evidence regarding their effectiveness. It will address concerns that many practitioners have about using new technologies and will examine the ethical and practical issues surrounding their use. In particular, the workshop will aim to increase clinician knowledge and confidence relating to the use of new technologies in their clinical practice and increase clinician awareness of the strengths and limitations of their use.

#### **Key learning objectives**

By the end of the class participants will be able to:

1. Identify a range of available online programs and mobile applications that may be useful in the treatment of anxiety and depression in young people.
2. Identify where in their clinical practice the use of such new technologies would be valuable
3. Describe the ethical and practical issues regarding their use
4. Feel comfortable about using online interventions and mobile applications in clinical practice

#### **Implications for everyday clinical practice of CBT**

There are many ways in which new technologies can be used to enhance the outcomes of CBT in clinical practice. Effective online CBT programs, for example, can be used not only as a method of reducing waiting lists in a busy service context but also as an adjunct to face-to-face therapy as a way of enhancing clinical outcomes, for example by increasing client skills acquisition, providing additional information to support the material presented in the clinic session, and increasing the generalization of newly acquired skills outside of clinical sessions. Such programs also have the potential to be used within a stepped-care approach given that many young people do not require intensive and prolonged face-to-face clinical treatment and an online intervention may be sufficient to produce clinical improvements. However, the proportion of depressed and anxious young people for whom online treatment is insufficient can then be "stepped up" to more intensive, face-to-face treatment.

#### **References**

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### **Cognitive Behavioural Anger Treatment for Clients with Intellectual and Developmental Disabilities**

**John Taylor, Northumbria University, United Kingdom**

Anger and associated aggression and violence are common amongst people who are intellectually low functioning or have mild-borderline intellectual disabilities. This is now well established by clinical research, especially in the UK, as well as by international epidemiological studies. This can have serious consequences for clients, their families and carers, and for services attempting to support them. Cognitive-behavioural anger treatment is gaining sway over formerly preferred behavioural antecedent control contingency management and psychotropic medication regimes for challenging behaviour in this client group. The efficacy of CBT programmes for anger has been demonstrated across types of settings, types of institutions (forensic and non-forensic), and treatment formats (individual and group).

#### **Key learning objectives**

1. To learn about the evidence base supporting the use of CBT interventions with low functioning clients.
2. To become familiar with the content of an evidence-based cognitive behavioural anger intervention designed for use with clients with cognitive limitations.
3. To learn and practice therapy skills linked to the use of the stress inoculation paradigm in anger treatment.

#### **Implications for everyday clinical practice of CBT**

Targeting key techniques provides options for providing anger treatment in routine clinical practice when resources might not be available to implement a full anger treatment protocol. The skills class will enhance participant's proficiency in understanding anger assessment and case formulation and help develop CBT skills through coaching in the application of the stress inoculation approach to anger treatment.

#### **References**

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### **Helping Patients with Paranoid Psychosis to Drop Their Safety Behaviours in Scary Virtual Reality Environments**

**Mark Van Der Gaag & Roos Pot-Kolder, VU University, the Netherlands**

Many patients with a psychotic disorder have persistent paranoid ideation and avoid social situations because of suspiciousness and anxiety. We studied the effects, working mechanisms and costs of virtual reality based cognitive behavioral therapy (VR-CBT) for paranoid thoughts and social participation. VR-CBT reduces paranoid ideation and anxiety in real life social situations. Safety behavior and social cognition

problems are mediators of change in paranoid ideation. In this workshop we will focus on which types of safety behaviors can be found in patients with psychosis, and how virtual reality can be used to drop them.

#### **Key learning objectives**

Learning how virtual reality can be used in cognitive behavioral therapy for treating paranoid ideation and anxiety in social situations.

#### **Implications for everyday clinical practice of CBT**

Virtual Reality technology has become more readily available and its therapeutic use in every day clinical practice is increasing. It will become an increasingly important tool for CBT specialists.

#### **References**

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### **Design, Implement and Publish a Single Case Experimental Design**

#### **David Veale, King's College London, United Kingdom**

Randomised controlled trials (RCTs) are designed to determine whether on average, an intervention is more effective than another intervention. This is often not good enough for clients and clinicians who want to know if an intervention is effective for them. Single Case Experimental Designs (SCED) can answer such questions. They are characterised by individual(s) acting as their own control. SCEDs have a rich history in behavioural therapies but are not now widely used by cognitive behaviour therapists nor taught adequately in training courses. This workshop aims to provide clinicians with the confidence to design and implement their own SCEDs in everyday practice. Each learning objective will be illustrated by exemplars. Resources on the internet, apps and publications for further reading will be recommended. Participants are encouraged to bring a research idea for a SCED to discuss in a small group.

#### **Key learning objectives**

By the end of the skills class, participants will

1. Understand the difference between a case series and a Single Case Experimental Design
2. Be able to determine if a case has achieved reliable and significant change on standard outcome measures
3. Understand when a SCED is more appropriate design compared to a RCT
4. Understand the four basic research designs in a SCED (reversal, multiple baseline, alternating treatments and changing criterion)
5. Understand the use of visual analysis in a SCED
6. Consider guidelines for number of observations in each phase and number of cases for replication
7. Understand statistical testing in a SCED.
8. Consider when it may be necessary to apply to ethics/IRB for a SCED
9. Consider standard reporting to publish a SCED

#### **Implications for everyday clinical practice of CBT**

By the end of the class, participants will become more confident about designing, implementing and writing up the results of a SCED.

#### **References**

Morley, S. (2017) *Single Case Methods in Clinical Psychology: A Practical Guide*. Routledge.  
Tate, R. et al (2016) The Single-Case Reporting guideline In Behavioral interventions (SCRIBE) 2016: Explanation and elaboration. *Archives of Scientific Psychology*, 4, 10–31.

### **Understanding and Treating a Specific Phobia of Vomiting**

#### **David Veale, King's College London, United Kingdom**

A Specific Phobia of Vomiting (SPOV) commonly develops in childhood with a mean duration of about 25 years before getting treatment. It occurs almost exclusively in women. It can sometimes be difficult to differentiate a SPOV from OCD, health anxiety and anorexia nervosa. It is one of the most common specific phobias that present to clinicians. People with SPOV tend to be more handicapped than people with other specific phobias (for example they may avoid a desired pregnancy or being significantly underweight from restriction of food). There has been one RCT of CBT compared to a wait list and one single case experimental design of time intensive CBT. Newer developments are focussed on computerised CBT and use of virtual reality.

#### **Key learning objectives**

By the end of the skills class, participants will

1. Understand the phenomenology of a Specific Phobia of Vomiting (SPOV) and its relationship with OCD, social phobia, health anxiety and eating disorders.
2. Be knowledgeable about the association of SPOV with past aversive memories of vomiting.
3. Be knowledgeable about a cognitive behavioral model and have a functional understanding of the cognitive processes and behaviours that maintain a SPOV.
4. Be able to use appropriate outcome measures.
5. Use appropriate exposure including dropping of safety seeking behaviours and consider what expectations are being tested by exposure
6. Use appropriate imagery re-scripting for any past aversive experiences of vomiting.

#### **Implications for everyday clinical practice of CBT**

By the end of the class, participants will be able to apply what they have learnt to their everyday practice in treating a person with a SPOV.

#### **References**

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## **Brief CBT for Eating Disorders (CBT-T): How to Adapt Our Skills to Get Good Outcomes in Half the Time**

**Glenn Waller, University of Sheffield, United Kingdom, & Tracey Wade, Flinders University, Australia**

Individual cognitive-behavioural therapy for eating disorders (CBT-ED) is well established as a leading therapy for the range of eating disorder cases. However, compared to CBT for other disorders, it is relatively long and expensive, limiting the number of people who can be offered the therapy. Therefore, a new, brief form of CBT has been developed for non-underweight patients, lasting 10 sessions rather than 20, and focusing on early change – CBT-T. Outcomes from CBT-T are comparable with those of conventional 20-session CBT-ED. This workshop will focus on the key principles and skills needed to deliver CBT-T, using a combination of didactic and role-play methods.

The outline for the Skills Class will be:

- a) Introduction;
- b) Principles of CBT-T – including role plays and demonstrations regarding: engaging the patient in change from the start; the use of protocols; handling therapy interfering behaviours;
- c) Key skills to use from CBT-ED in delivering CBT-T – including demonstrations and explanations of the use of: early and rapid nutritional change; exposure, based on inhibitory learning principles; behavioural experiments; weighing; body-image work; relapse prevention;
- d) Effective supervisory practice in CBT-T – exploring how supervision can be more effective if it is outcome-focused;
- e) Discussion time– addressing questions from the floor, and exploring how attendees can implement CBT-T in their own clinical setting.

### **Key learning objectives**

1. Use key principles to guide the use of CBT-T
2. Emphasise the core CBT-ED techniques that are critical to CBT-T
3. Engage patients as active therapists in overcoming their eating disorder

### **Implications for everyday clinical practice of CBT**

The ability to treat more patients just as effectively.

Reduction in waiting lists.

Positive patient experience of CBT for eating disorders.

### **References**

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## **Getting Session One Right: Working with Resistant and Non-Compliant Children and Young People**

**Meg Wardlaw, Private Psychologist, Australia**

Developing rapport is at the heart of the therapeutic process for children and young people. And yet, it is frequently assumed rapport will just develop with warmth and understanding.

The resistant, non-compliant “tricky kids”, are a much harder group with whom to engage, and developing rapport is a mighty challenge.

These young people see no point in wanting to please the therapist, and indeed, have no sense that manners dictate that they should be giving the therapist a “fair go”.

Without rapport the child may remain withdrawn, uncooperative or even hyperactive, with little effective therapy achieved.

Recent development of computer programs, such as In My Shoes, have been developed with results suggesting they can be a useful way of developing rapport and increasing verbal communication. However, therapists do not always have these tools available to them, and real-life alternative strategies are required.

Once rapport is established, the real work can begin. Without it, the relationship between therapist and young person can be one of constant struggle. Clinicians generally find by getting the first step right, the therapeutic process can run smoothly.

### **Key learning objectives**

1. By the end of the class, participants will be able to:
2. Identify when rapport-building with children and young people is not occurring
3. Develop a tool-kit to use for developing rapport with children and adolescents
4. Understand how to configure the therapy room to promote engagement
5. Identify clinical and diagnostic implications for the difficult-to-engage client

### **Implications for everyday clinical practice of CBT**

Once rapport is established, the real work can begin. Without it, the relationship between therapist and young person can be one of constant struggle. Clinicians generally find by getting the first step right, the therapeutic process can run smoothly

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## **Culturally-Informed Clinical Research: Assessment, Recruitment, Interventions & Ethics**

**Monnica Williams, University of Connecticut and Storrs CT, USA, Sonya Faber, Syneos Health, Germany, & Marie Laurencin, Novartis, Switzerland**

Conducting research with a diverse ethnic population requires clinicians who can appreciate unique differences in culture as well as psychopathology arising from experiences of stigma and oppression. Further, it is imperative that participants from minority groups be included in research studies broadly. Without adequate representation of all populations in scientific studies, the mental health community cannot fully understand or treat mental disorders cross-culturally. The Belmont Report (US Department of Health, 1979) describes the unifying ethical principles that form the basis for the inclusion of human subjects in research: respect for persons, beneficence, and justice.

The benefits and burdens of research should be fairly distributed, and research findings that are not inclusive of ethnic and racial minority participants mainly benefit the majority who are being researched, as treatment approaches become tailored based on results that may not be generalizable. Cultural, economic, and logistic barriers can deter people from disadvantaged racial and ethnic groups from participating in mental health research and can also deter clinicians from including them. In the United States, the National Institutes of Health has mandated ethnic, racial, and gender diversity in all funded studies, but this goal has been only partially realized. This session will describe steps mental health researchers can take to increase recruitment of minoritized groups into clinical studies. Important strategies include formal training in cultural differences, development of multi-cultural awareness, diversification of study teams, community outreach, professional networking, targeted advertising, meaningful incentives, a comfortable environment, and ongoing review of efforts. Presenters will also discuss retention of participants within the context of good clinical practice (GCP) guidelines. Dr. Williams will speak to these issues based on the research literature and her experience as a PI in studies recruiting hard-to-reach racialized participants for mental health studies. Dr. Faber will speak to these issues from her decades of experience in research protocol design, having worked in academia and industry to promote and manage successful clinical trials in Germany and internationally. Ms. Laurencin will discuss practical strategies for integrating cultural issues into GCP internationally from her experience as head of clinical operations in the biotech industry.

#### **Key learning objectives**

By the end of the class, participants will be able to:

1. Describe the ethical importance of diverse study samples
2. Identify barriers to the participation of disadvantaged racial and ethnic groups
3. Implement key methods for recruiting diverse participants
4. Implement processes for maintaining diverse participants

#### **Implications for everyday clinical practice of CBT**

This course will improve the ability of researchers to design inclusive studies, recruit more diverse samples, attend to cultural considerations in the process of interventions, and incorporate critical ethical principles into procedures.

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#### **'The obstacle is the path' – flexibility and form in CBT supervision**

**Rita Woo & Michael Worrell, Central and North West London NHS Foundation Trust, United Kingdom**

Clinical supervision fulfills diverse and varied functions and plays an important role in the training and development of CBT therapists. One such function involves developing and maintaining supervisee competence for safe and effective clinical practice. Achieving this often requires reflection from both supervisor and supervisee not only on the supervisee's skills and their own assessment of these, but also on the supervisory relationship. However the supervisory relationship is a dynamic one that can be influenced by a variety of factors stemming from the supervisor, the supervisee, and the interaction between them as well as that between the supervisee and the client. The interaction of these factors could contribute to a range of interpersonal processes that might be occurring in supervision and these interpersonal processes often impact the function of supervision, the supervisor's ability to facilitate their supervisee's skill development as well as the supervisee's capacity to reflect and develop their competence in delivering effective CBT. Some common challenges that arise in supervision include the presence of a parallel process, collusion, different forms of supervisee's 'resistance' e.g. a reluctance to engage in exposure based strategies, and attraction.

The aim of this workshop is to therefore provide participants with an opportunity to reflect on some of the interpersonal processes that occur during supervision and to explore possible ways of managing them.

#### **Key learning objectives**

By the end of the workshop participants will be able to:

1. Identify the factors that contribute to some of the interpersonal processes that might be occurring
2. Draw from some CBT and other psychotherapeutic frameworks for conceptualising the interpersonal processes
3. Use these frameworks to address some of the interpersonal difficulties
4. Practice and experiment with different strategies to manage interpersonal difficulties

#### **Implications for everyday clinical practice of CBT**

This workshop would be useful for supervisors, experienced practitioners and trainers in CBT. It would help in developing supervisor competence in managing challenges in supervision contributing to the overall effectiveness of it as well as help to develop supervisees' competences in delivering effective CBT.

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#### **The Initial Phase in ACT: Setting the Grounds for a Valued Change**

**Iftah Yovel, The Hebrew University of Jerusalem, Israel**

ACT practitioners are faced with several challenging tasks in the initial phase of treatment. During the first few sessions, therapists need to develop a useful, contextual formulation. Rather than focusing on symptom reduction, the emerging treatment plan needs to emphasize the client's valued goals. Establishing a good rapport with the client is important in all therapies, and in all types of CBT therapeutic relationships should be based on a strong sense of collaboration and transparency. On top of these, however, a fruitful treatment alliance in ACT is also contingent upon the somewhat elusive concept of "creative hopelessness": early in treatment, therapists often need to help clients recognize

the futility of some of their most basic forms of coping strategies, and at the same time provide viable alternatives. This last endeavor is rarely an easy one: these alternatives are often perceived as counterintuitive and even "illogical", and merely attempting to explain their nature using common language tools may prove counterproductive. Perhaps most importantly, it is essential in ACT to deliver very early in therapy a strong message of an active, behavioral approach, one that is clearly and explicitly based on the psychological flexibility model. Finally, in addition to all the above undertakings, it is never too early to start working on the development of acceptance, mindfulness and defusion skills.

### **Key learning objectives**

Participants will acquire the following skills:

1. Create a useful contextual, "label-free" case formulation
2. Effectively present to clients the idea of "creative hopelessness", using both verbal and non-verbal communication means, based on clients' own treatment goals.
3. Start practicing flexibility and develop basic ACT skills (e.g., acceptance, defusion) very early on in treatment.
4. Utilize current scientific knowledge and common cognitive and behavioral techniques in the service of the above objectives.

### **Implications for everyday clinical practice of CBT**

This skills class will focus on the critical initial phase of treatment in ACT. Participants will learn how the first sessions can be structured and implemented in a way that is compatible with this trans-diagnostic approach and relevant to a wide variety of cases (with or without a DSM diagnosis), but at the same time tailored to the specific individual.

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SKILLS CLASSES: GERMAN

### **Bindungsorientierte verhaltenstherapeutische Elternberatung**

#### **Michael Borg-Laufs, Hochschule Niederrhein, Deutschland**

Bindungsorientierte und verhaltenstherapeutische Konzepte werden weitgehend immer noch als gegensätzliche, gelegentlich sogar unvereinbare Ausrichtungen in der Kinder- und Jugendlichenpsychotherapie und in der Elternberatung gesehen. Insbesondere im deutschsprachigen Raum gibt es so gut wie keine Publikationen, die eine integrative Perspektive vermitteln. Tatsächlich handelt es sich aber um Perspektiven, die sich ergänzen können und die bei der Arbeit mit Familien mit verhaltensauffälligen Kindern und Jugendlichen in einem integrativen Konzept umgesetzt werden können. In dieser Veranstaltung werden die Gemeinsamkeiten der beiden Perspektiven herausgearbeitet und konkrete Vorgehensweisen in der Elternberatung vermittelt.

#### **Lernziele**

1. Erkennen der Gemeinsamkeiten bindungstheoretischer und verhaltensorientierter Perspektiven
2. Diagnostische Einordnung kindlichen Verhaltens und elterlichen Fehlverhaltens
3. Strategien zur Etablierung positiver Eltern-Kind-Interaktionen
4. Anwendung der erarbeiteten Strategien im Umgang mit herausfordernden Eltern

#### **Bedeutung für die klinische Praxis der KVT**

In der Bezugspersonenberatung kann systematisch gleichzeitig an Verhaltensveränderungen bei den Kindern und Jugendlichen einerseits und einer Verbesserung der Bindungsbeziehung gearbeitet werden. Frustrierende Erfahrungen mit widerständigen oder scheinbar unwilligen Eltern können verringert werden.

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### **Durchführung der "Liste prägender Bezugspersonen mit Übertragungshypothesen" für Patienten mit Misshandlungserfahrungen im Kindesalter**

#### **Eva-Lotta Brakemeier, Philipps-Universität Marburg, Deutschland**

Die therapeutischen Skills "Liste prägender Bezugspersonen" (englisch: „Significant Other History“) einschließlich der Konstruktion der "Übertragungshypothesen" (englisch: „transference hypotheses“) stammen aus dem Cognitive Behavioral Analysis System of Psychotherapy (CBASP; McCullough, Schramm, Penberthy, 2015; Brakemeier & Normann, 2012), welches für die Behandlung von chronischer Depression entwickelt wurde. Im Rahmen der Liste prägender Bezugspersonen, welche eine emotionale zwischenmenschliche Biographiearbeit darstellt, werden frühere Beziehungserfahrungen des Patienten mit seinen signifikanten Bezugspersonen exploriert, die bezüglich der zwischenmenschlichen Erwartungen auf den Therapeuten übertragen werden. Da diese Strategien den Zusammenhang zwischen traumatisierenden Beziehungserfahrungen in der Kindheit (Kindesmisshandlung, englisch: „childhood maltreatment“) und den heutigen zwischenmenschlichen Problemen herstellen, scheinen sie eine wertvolle psychotherapeutische Strategie für alle Patienten mit Kindesmisshandlung zu sein und lassen sich sehr gut in die moderne kognitive Verhaltenstherapie (KVT) integrieren.

#### **Lernziele**

Am Ende der Skills Class werden die Teilnehmerinnen und Teilnehmer ...

1. ein vertieftes Verständnis über Kindesmisshandlungen (childhood maltreatment) gewonnen haben (vgl. WHO).
2. in der Lage sein, die Liste prägender Bezugspersonen durchzuführen und Übertragungshypothesen zu konstruieren.
3. erste Eindrücke gewonnen haben, wie die Übertragungsbereiche im Verlauf der Therapie weiter adressiert werden können, um heilsame korrigierende Beziehungserfahrungen während der Therapie den Patienten zu ermöglichen.



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## Kognitive Therapie für PTBS: Traumaerinnerungen aktualisieren

### Anke Ehlers, Oxford University, Vereinigtes Königreich

Die Kognitive Therapie für PTBS (Cognitive Therapy for PTSD) ist eines der empirisch validierten KVT Therapieprogramme zur Behandlung von posttraumatischen Belastungsstörungen (PTBS). Nach dem Modell von Ehlers und Clark (2000) nehmen Personen mit PTBS eine gegenwärtige schwere Bedrohung wahr, da sie (1) das Trauma und/ oder seine Konsequenzen als Anzeichen einer aktuellen Bedrohung interpretieren und (2) aufgrund von Besonderheiten des Traumagedächtnisses Aspekte des Traumas ohne den Kontext relevanter vorangegangener und nachfolgender Informationen im „Hier-und-Jetzt“ wiedererleben. Weiter wird angenommen, dass die dysfunktionalen Interpretationen die Betroffenen dazu motivieren, Verhaltensweisen und kognitive Strategien zur Kontrolle der wahrgenommenen Bedrohung und Symptome einzusetzen, die das Problem aufrechterhalten. Zu den zentralen therapeutischen Techniken gehört die Aktualisierung der Traumaerinnerungen. ‚Hot spots‘ im Traumagedächtnis und deren Bedeutungen werden identifiziert und aktualisiert mit Informationen, die die damaligen Eindrücke und Bedeutungen korrigieren.

### Lernziele

1. Die Teilnehmer werden mit der Intervention Aktualisierung von Traumaerinnerungen vertraut gemacht. Sie lernen verschiedene Interventionen kennen
2. Zur Identifikation von ‚Hot Spots‘ und deren subjektiven Bedeutungen
3. Zum Erarbeiten von Informationen, die die Bedeutungen weniger aktuell bedrohlich machen
4. Zur Aktualisierung der ‚Hot Spots‘.

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## Anhaltspunkte für Kindeswohlgefährdung in der Psychotherapie – Wahrnehmen, Thematisieren, Mitteilen

### Tanja Götz & Constanze Ziesemer, Universitätsklinikum Freiburg, Deutschland

Misshandlung, Vernachlässigung und sexueller Missbrauch in der Kindheit erhöhen das Risiko für psychische wie körperliche Morbidität (z.B. Egle et al. 2016). Eine möglichst frühzeitige Intervention ist in vieler Hinsicht sinnvoll. Bezüglich eines möglichst frühen Erkennens von Anhaltspunkten auf Kindeswohlgefährdung sowie des Einleitens von Interventionsmaßnahmen sind Psychotherapeutinnen und Psychotherapeuten nach dem Bundeskinderschutzgesetz (§4KKG) verpflichtet, auf den Schutz der Kinder und Jugendlichen hinzuwirken oder ggf. nach dem dort beschriebenen Ablauf das Jugendamt einzuschalten. Anhaltspunkte auf Gefährdung können sich dabei sowohl in der Kinder- und Jugendpsychotherapeutischen Praxis als auch in der Erwachsenenpsychotherapie ergeben, z.B. durch Kenntnis der Auswirkung einer psychischen Erkrankung auf die Versorgungs- und Erziehungsfähigkeit.

In der Skills Class werden wir eingehen auf:

1. Anhaltspunkte auf Kindeswohlgefährdung aus medizinischer und psychosozialer Sicht
2. Möglichkeiten der Thematisierung dieser Anhaltspunkte mit Eltern / Patienten (incl. praktischer Übung)
3. Das Vorgehen bei Notwendigkeit einer Mitteilung von Anhaltspunkten auf Kindeswohlgefährdung an das Jugendamt lt. Gesetz
4. Struktur und Inhalt einer Mitteilung an das Jugendamt - was hat sich in der Praxis als hilfreich bewährt

### Lernziele

Am Ende des Seminars sollten Sie sich sicherer in der Bewertung von Anhaltspunkten auf Kindeswohlgefährdung sowie in der Einleitung der notwendigen Interventionsschritte sein, incl. hilfreiche Ideen für die Formulierung einer Mitteilung an das Jugendamt haben.

### Bedeutung für die klinische Praxis der KVT

Sicherstellung von Kinderschutz, Vernetzung mit dem dafür zuständigen System der Kinder- und Jugendhilfe, frühzeitige Intervention und im Besten Falle Verhinderung weiterer Pathologie...

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## Körperkonfrontation zur Behandlung der Körperbildstörung bei Essstörungen und Körperdysmorpher Störung – Input aus dem BEAM-Net

### Andrea Hartmann, Universität Osnabrück, Deutschland, & Jessica Werthmann, Universität Freiburg, Deutschland

Ein gestörtes Körperbild ist eines der zentralen Symptome der unterschiedlichen Essstörungsformen und der Körperdysmorphen Störung. Körperkonfrontation hat sich als wirksame Technik zur Behandlung eines gestörten Körperbildes im Bereich der Essstörungen erwiesen (für eine Übersicht siehe Griffen, Naumann & Hildebrandt, 2018). Dabei bleiben die zugrundeliegenden Wirkmechanismen wie bspw.

Habituations- und Extinktions-, Aufmerksamkeitsumlenkungs- und Realitätstestungsprozesse unklar. Basierend auf dem angenommenen zugrundeliegenden Wirkmechanismus und dem damit zusammenhängenden Rational haben sich unterschiedliche Versionen der Technik etabliert. Diese verschiedenen Versionen sollen zusammenfassend dargestellt und der Ablauf der praktischen Durchführung (bspw. Vocks, Bauer & Legenbauer, 2018) einschließlich der Hinweise auf schwierige therapeutische Situationen soll illustriert werden.

#### **Lernziele**

1. Am Ende des Workshops werden die Teilnehmenden die folgende Fertigkeiten erworben haben:
2. Kennenlernen der theoretischen Hintergründe, auf denen die Körperkonfrontation basiert
3. Kennenlernen unterschiedlicher Varianten der Körperkonfrontation
4. Erarbeitung des Rationals für die Körperkonfrontation mit dem/der Patient\*in
5. Vorbereitung und individuelle Abstimmung des Vorgehens auf den/die Patient\*in
6. Durchführung einer Körperkonfrontation und Evaluierung der Effekte
7. Übertragung der Technik von den Essstörungen und der Körperdysmorphen Störung auf weitere Störungsbilder

#### **Bedeutung für die klinische Praxis der KVT**

Am Ende des Workshops sollen die Teilnehmenden befähigt sein, das Gelernte in ihr tägliches klinisches Arbeiten zu integrieren und ihre verhaltenstherapeutische Arbeit mit Patient\*innen mit Essstörungen um die Technik der Körperkonfrontation zu ergänzen.

#### **Literatur**

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#### **Persönliche Werte klären**

##### **Jürgen Hoyer, TU Dresden, Deutschland**

Emotionale und verhaltensbezogene Vermeidungsroutinen können nur überwunden werden, wenn das neue, noch schwierige Verhalten subjektiv im Dienst persönlich relevanter Werte steht. Diese Werte zu identifizieren und in kritischen Situationen verfügbar zu machen, ist deshalb eine wichtige motivierende Interventionsstrategie. Wenn Werte miteinander in Konflikt stehen, kann dies Motivationsprobleme erklären. Es gilt deshalb, auch über Strategien zu verfügen, mit denen Werte-Dilemmata geklärt und gegebenenfalls Prioritäten erarbeitet werden können.

#### **Lernziele**

Am Ende der Seminareinheit sollen Sie in der Lage sein, Patient\_innen effektiv dabei zu unterstützen,

1. ihre wichtigsten persönlichen Werte mit einfachen Übungen zu identifizieren,
2. sie zu priorisieren,
3. Diskrepanzen zwischen der persönlichen Bedeutung von Werten und dem Grad ihrer Umsetzung im Alltag zu erkennen und
4. Werte-Konflikte zu bewältigen.

#### **Bedeutung für die klinische Praxis der KVT**

Der Rückbezug von Zielen und Mitteln auf die dahinter stehenden Werte wird Patient\_innen und Therapeut\_innen einfacher.

#### **Literatur**

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#### **Achtsamkeit in der Einzeltherapie**

##### **Johannes Michalak, Universität Witten/Herdecke, Deutschland**

Achtsam sein bedeutet, mit den sich im Hier-und-Jetzt entfaltenden Erfahrungen in bewussten und nicht-wertenden Kontakt zu sein. Achtsamkeit ist ein Prinzip, das ursprünglich im Rahmen östlicher Meditationswege praktiziert wurde. In den letzten Jahren stößt das Achtsamkeitsprinzip im Bereich der westlichen Psychotherapie – sowohl in Forschung als auch Anwendung - auf großes Interesse. Achtsamkeitsbasierte Ansätze, wie das Mindfulness-based Stress Reduction Program oder die zur Rückfallprophylaxe bei Depressionen entwickelte Mindfulness-based Cognitive Therapy sind für Gruppen entwickelt worden. Viele Therapeuten sind aber auch daran interessiert, Achtsamkeit auch in ihre einzeltherapeutische Arbeit zu integrieren. In dem Workshop wird es um die Frage gehen, wie eine integre Integration von achtsamkeits- und meditationsbasierten Elementen in der Einzeltherapie aussehen könnte. Folgende Aspekte werden behandelt: (a) verschiedene Intensitätsstufen der Integration, (b) Qualifikation des Therapeuten (c) Problembereiche, bei denen eine Integration sinnvoll sein könnte (d) Auswertung von Übungserfahrungen im Einzelsetting (g) Arten und Dauer von Achtsamkeitsübungen in der Einzeltherapie.

#### **Lernziele**

TherapeutInnen sind dazu in der Lage,

1. verschiedene Formen der Integration von Achtsamkeit in die Einzeltherapie zu unterscheiden
2. Diagnosen/klinische Probleme, bei denen die Integration von Achtsamkeit in die Einzeltherapie hilfreich sein könnte zu benennen
3. Relevante Qualifikationen der TherapeutInnen zu berücksichtigen
4. Achtsamkeitsübungen in der Einzeltherapie kompetent nachzubespochen

#### **Bedeutung für die klinische Praxis der KVT**

Reflexion einer verantwortungsbewussten Art und Weise der Integration von Achtsamkeit in die Einzeltherapie.

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Michalak, J., Steinhaus, K. & Heidenreich, T. (2018). (How) do therapists use mindfulness in their clinical work? A study on the implementation of mindfulness interventions. *Mindfulness*. <https://doi.org/10.1007/s12671-018-0929-9>

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### **Steigerung des Expositionserfolgs bei der Behandlung von Angststörungen über die Lebensspanne**

**Verena Pflug & Christina Totzeck, Ruhr-Universität Bochum, Deutschland**

Hintergrund: Angststörungen zählen zu den häufigsten psychischen Störungen des Kindes-, Jugend- und Erwachsenenalters. Die Therapieforschung der letzten Jahre hat gezeigt, dass Angststörungen effektiv behandelt werden können, wobei die Kognitive Verhaltenstherapie (KVT) die wirksamste Behandlungsform mit dem höchsten Evidenzgrad darstellt. Dabei scheint die Wirksamkeit der KVT im Wesentlichen auf das Therapieelement der Exposition zurückzuführen zu sein und die Exposition wiederum auf dem Lernprinzip der Extinktion (Inhibitionslernen) zu beruhen (Craske et al, 2014). In diesem Kurs werden deshalb Strategien zur Steigerung des Expositionserfolgs durch die gezielte Förderung des Extinktionslernens vorgestellt. Dabei wird ein Schwerpunkt auf der praktischen Anwendung dieser Strategien liegen, vor allem bei Kindern und Jugendlichen. Zu den Intensivierungsstrategien zählen z.B. die systematische Verletzung negativer Ergebniserwartungen, die gezielte Stimulus- und Kontextvariation, die Kombination mehrerer Angstreize in einer Situation, Aufmerksamkeitslenkungen oder die zeitliche Verdichtung der Expositionsübungen. Anhand von Fallbeispielen und Videodemonstrationen liefert der Kurs vertiefende Einblicke in die Umsetzung von Expositionsverfahren bei verschiedenen Angststörungen. Zudem wird der mögliche Elterneinbezug in die Psychotherapie von Kindern- und Jugendlichen mit Angststörungen anhand des Bochumer 3-Ebenen Modells (Lippert et al.) thematisiert.

#### **Lernziele**

Teilnehmer sollen danach in der Lage sein

1. verschiedene Strategien zur Optimierung der Expositionsverfahren zu benennen und einzusetzen
2. individuelle Befürchtungen gemeinsam mit Kindern und Jugendlichen zu identifizieren
3. geeignete Expositionsübungen zu wählen, um die individuellen Befürchtungen zu überprüfen
4. Sicherheits- und Vermeidungsverhalten besser aufzudecken
5. verschiedene Möglichkeiten des Elterneinbezugs bei der Psychotherapie von Kinder- und Jugendlichen mit Angststörungen zu berücksichtigen

#### **Bedeutung für die klinische Praxis der KVT**

Teilnehmer sollen danach in der Lage sein Angststörungen besser behandeln zu können, indem sie vor allem die Expositionen optimieren (siehe Lernziele).

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### **Die interpersonale Perspektive in der Schematherapie in der Arbeit mit Einzelpatienten, Paaren und in der Supervision**

**Eckhard Roediger, Institut für Schematherapie Frankfurt, Deutschland**

Mit dem Modell des modusbasierten Interaktionszirkels, der sich aus dem vordergründig sichtbaren Bewältigungsverhalten von 2 Interaktionspartnern zusammensetzt, verfügt die Schematherapie (ähnlich wie die EFT) über ein einfaches interaktionelles Modell. In Dialogen auf mehreren Stühlen kann die emotionale Ebene hinter dem Bewältigungsverhalten sichtbar gemacht und neu ausbalanciert werden, so dass längerfristig sowohl das Bedürfnis nach Bindung, als auch das nach Selbstbehauptung befriedigt werden können. In dieser Skill Class wird kurz in das Modell eingeführt und eine Kleingruppenübung zur Verstärkung der Bindungsbereitschaft gemacht und vorgestellt, wie die Selbstbehauptungsseite gestärkt werden kann.

#### **Lernziele**

1. Den Interaktionszirkel und die hintergründigen emotionalen Aktivierungen verstehen.
2. Den Zirkel sanft unterbrechen und ihn auf mehreren Stühlen für die Betroffenen sichtbar machen.
3. Eine Intervention zur Auflösung und emotionalen Wiederanknüpfung initiieren.

#### **Bedeutung für die klinische Praxis der KVT**

Ohne das Verständnis für die emotionalen Hintergründe kann ein sich entwickelnder Interaktionszirkel kaum unterbrochen werden und droht zu eskalieren. Aus diesem Prozess aussteigen und ihn gemeinsam analysieren zu können ist die Grundvoraussetzung für eine Auflösung, die die Grundbedürfnisse beider Beteiligten langfristig befriedigt. Dieser Ansatz kann sehr viel dazu beitragen, Konflikte in der Therapie, der Supervision, im Arbeits- oder dem Privatleben funktionaler aufzulösen. Das beschriebene Vorgehen ist an keine spezifische Theorie gebunden und kann von allen Therapeuten in ihre Herangehensweise integriert werden.

#### **Literatur**

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## ROUND TABLES

### **What Works for Whom? A Comparison of Modern Psychotherapies Regarding a Difficult Situation**

**Convenor:** Eva-Lotta Brakemeier, Philipps-University of Marburg, Germany

**Chair:** Stefan Hofmann, Boston University, USA

**Discussant:** Christian Banzhaf, Charité University Medicine Berlin (acting patient), Germany

**Speakers:** Stefan Hofmann, Boston University, USA; Eva-Lotta Brakemeier, Philipps-University of Marburg, Germany; Eckhard Roediger, Schematherapy Institute Frankfurt, Germany; Andrew Gloster, University of Basel, Switzerland

The aim of this symposium is to present the practical handling of a difficult psychotherapy situation from four different psychotherapeutic perspectives in order to identify similarities and differences. It is therefore not a question of which psychotherapy is more effective, but rather of deepening the important psychotherapy research question: What works for whom? while addressing in addition the question for therapists: Which therapy suits me as a therapist?

The following four modern psychotherapies were chosen for this purpose:

- 1) modern Cognitive Behavior Therapy (CBT) presented by Stefan Hofmann (Boston, USA)
- 2) Acceptance and Commitment Therapy (ACT) presented by Andrew Gloster (Basel, Switzerland, requested)
- 3) Cognitive Behavioral Analysis System of Psychotherapy (CBASP) presented by Eva-Lotta Brakemeier (Marburg, Germany)
- 4) Schema Therapy (ST) presented by Eckhard Roediger (Frankfurt, Germany)

These psychotherapies have one thing in common: they are all either rooted in CBT or have integrated strategies from CBT – addressing the main theme of the congress: CBT at the crossroads. However, in the concrete implementation they sometimes differ considerably. In order to make the symposium practice-oriented, the representatives of each psychotherapy will first briefly introduce their psychotherapy and then present the dealing of the same difficult therapy situation through live role-plays with the acting patient Christian Banzhaf who is a professional actor and psychiatrist.

As the difficult psychotherapy situation uncontrolled anger shown by the patient against the therapist was chosen. The basic emotion anger is often regarded as one of the strongest, most unpleasant and most destructive human emotions. In addition, anger is regarded as a central problem area in the development and maintenance of psychological disorders such as personality disorders (especially borderline personality disorders), but also Posttraumatic Stress Disorder and (chronic) depression. The uncontrolled acting out of anger usually has considerable interpersonal and possibly also criminal consequences for patients. If patients uncontrollably reveal their anger to the therapist during a psychotherapy session, this offers - besides a possible initial uncertainty for the therapist - also positive chances for the psychotherapeutic process, which the four therapists will show in their role plays.

Finally, there will be a discussion about the observed similarities and differences of the psychotherapies with all four representatives, the acting patient, and the audience.

#### **Implications for everyday clinical practice of CBT**

As implications for everyday clinical practice, CBT therapists can directly compare different modern psychotherapies regarding similarities and differences on the basis of a concrete difficult therapy situation. This addresses the question: Which therapy suits me as a therapist?

### **Formulation and Treatment Planning for Trauma Focused CBT for CPTSD: When & How to Adapt Treatment?**

**Convenor:** Martina Mueller & Alison Croft, Oxford Cognitive Therapy Centre (OCTC), United Kingdom

**Chair:** Melanie Fennell, University of Oxford, United Kingdom

**Speakers:** Patricia Resick, Duke University Medical Centre, USA; Anke Ehlers, University of Oxford, United Kingdom; Regina Steil, Goethe University Frankfurt, Germany

Whilst trauma focused CBT is helpful for many patients with PTSD, some populations do less well. Survivors of multiple and cumulative trauma often present with severely disabling and pervasive difficulties, which can pose significant dilemmas for clinicians. ICD - 11 includes a formal diagnostic classification to describe the sibling diagnosis of CPTSD, which describes additional clinical features associated with severe trauma. However, an ongoing controversy regarding the most appropriate treatment approaches for complex PTSD (eg. De Jongh et al., 2016) fuel practising clinicians' ambivalence about the choice and timing of key therapeutic strategies to aid recovery. Clinicians often have questions such as: When is disturbance of affect severe enough to warrant adaptations to treatment? How can we assess this systematically? What do we do when there are many troublesome memories to different events, memories 'bleed' into each other or meaning has become generalised and entrenched? How do we safely work with the ready activation of extreme affective arousal, such as the defence cascade?

The convenors propose to present the case of 'Molly' a survivor of multiple, life long trauma who presents with CPTSD (ICD-11). The clinical presentation will describe a detailed case formulation and treatment planning and will highlight options for resolving clinical obstacles.

Reference: De Jongh, AD et al. (2016) Critical analysis of the current treatment guidelines for complex PTSD. *Depression & Anxiety*, 00:1-11.

#### **Implications for everyday clinical practice of CBT**

This Clinical Roundtable aims to offer practising clinicians an opportunity to reflect on expert opinion on resolving common obstacles in the treatment of CPTSD, to inform case formulation and treatment planning. The discussion will aim to focus on some of the following questions:

- How do we best conceptualise and make clinical decisions about treatment planning with the most complex trauma cases?
- What tools do we have for working effectively and safely with multiple and cumulative trauma memories?
- How can clinicians approach work with very high and readily triggered arousal and over-engagement with trauma memories?

These questions are salient for the treatment of a wide range of clinical populations including: Traumatized refugees, survivors of developmental trauma and domestic violence as well as occupationally traumatised personnel.

## **OCD, Hoarding or Schizophrenia: A Complicated Case**

**Convenor:** Darya Maryasova, Troitsk Hospital of the Russian Academy of Sciences, Russia

**Chair:** Emma Agasarian, European Medical Center, Russia

**Speakers:** Douglas Turkington, Newcastle University, United Kingdom; Christian Stierle, Psychosomatic Hospital and Psychotherapy and Schoen Clinic Bad Bramstedt, Germany; Yakov Kochetkov, Moscow Centre for Cognitive Therapy, Russia

Historically Russian-Soviet concept of sluggish schizophrenia for a long time was the point of abuse of psychiatry and a part of a governmental repressive machinery struggling with political dissent. But even nowadays schizophrenia in Russia is frequently overdiagnosed. It's not uncommon for patients with obsessive-compulsive disorder (OCD), especially in cases with mental compulsions, mental contamination obsessions, severe avoiding behavior leading to disability. Psychotic disorder-related misdiagnosis leads to stigmatization of both patients and their families, maltreatment with significant side effects, relational and employment discrimination, increased risk of suicide. We hope to change this scenario.

We'd like to discuss the complicated clinical case of patient who was previously diagnosed with schizophrenia and mistreated but then the diagnosis was changed to OCD.

The patient is 38 years old, presented with high anxiety and intrusive obsessive thoughts and doubts about doing something wrong, thinking bad things, missing or spoiling something important, inflicting harm. He is fixed on his own mental processes and "unpleasant sensations in brain" and misinterprets them as dangerous, leading to insanity, "mind breaking". In order to neutralize the possibility of harm and feelings of anxiety, he carries out long mental rituals of "untangling" thoughts, rituals of returning, checking things, repeating "correct sequence of actions".

He also has inflexible ego-syntonic ideas about responsibility for inanimate objects (including rubbish and body parts: nails, hairs, even sweat), intense emotional sentimental attachment to them, which results in hoarding symptoms and sanitary problems.

The problem developed in the early childhood. All through his life it was hard for him to maintain any social contacts because of obsessive fears to say something wrong, to offend the person or destroy relationships unwillingly. The patient lives with anxious overprotective mother. He has education at university level, works part-time at his mother's business. He was hospitalized twice, at 16 and at 38 y.o., with the schizophrenia diagnosis. The last hospitalization was involuntary civil commitment, he was discharged without improvement and mental disability was declared. This resulted with severe distress, side effects of antipsychotics and suicidal intentions.

For now the patient was seen for 30 weekly CBT sessions. A cognitive behavioral model of OCD was used to conceptualize the presenting difficulties and create a treatment plan. SSRI antidepressants were used for a short period, then the patient refused to take them because of obsessive reasons.

The range of OCD symptoms (by YBOCS) has decreased from extreme to moderate. Trustful therapeutic alliance was established, positive feedback from the patient and his family was received. But obsessive thoughts and especially hoarding symptoms are still interfering with functioning in his social, work and household areas.

The clinical case discussion illustrating contrasting viewpoints will be provided by experts in the field of OCD and psychotic disorders from United Kingdom, Germany, Russia. We'd like to discuss differential diagnosis between OCD, schizophrenia with OCD (schizo-obsessive disorder), obsessive-compulsive personality disorder, hoarding, social phobia and debate following treatment strategy.

### **Implications for everyday clinical practice of CBT**

Due to the broad consumer implications of psychotic disorder-related misdiagnosis (e.g., social stigma, hospitalizations, antipsychotic medications that worsen obsessive-compulsive symptoms (OCS), etc.) public discourse of this phenomenon is clearly warranted. Also co-occurrence of psychotic and OCS has been widely recognized in clinical practice. Besides diagnostical complications, cases like this propose a challenge in the treatment, but it is possible to reach significant improvement using CBT approaches. We consider that exploring the interface of obsessive-compulsive and schizophrenic symptoms exemplified by debated patient, discussing proper case formulation and use of cognitive behavioral model in such cases can be important for diagnostic clarity and leads to better understanding of treatment strategies and long-term prognosis

## TECHNICAL DEMONSTRATIONS

### **The SO REAL Project: Cognitive Behavioral Therapy Augmented with Virtual Reality Exposure Therapy for Social Anxiety Disorder**

**Presenters: Benjamin Arnfred & Peter Bang, Center for Mental Health Capital Region of Denmark, Denmark**

#### **Introduction**

Virtual Reality (VR) is a media which allows the creation of artificial environments, which are perceived as real or almost real, due to multisensory stimulation and blocking of real world sensory input. As a therapy tool, VR is most widely used and has shown the best results through Virtual Reality Exposure Therapy (VRET). In VRET, part of or all the exposure a patient receives is administered through VR, instead of in-vivo.

New meta-studies support that VR is an effective tool that can improve exposure therapy for Social Anxiety Disorder (SAD) (Carl et al., 2018; Chesham, Malouff, & Schutte, 2018)

#### **Background**

Exposure therapy has been shown to be effective in treating SAD, especially when it is part of Cognitive Behavioral Therapy (CBT).

However, exposure therapy for SAD can be costly to structure logistically, and troublesome to control and graduate. In addition, many clients with SAD are so fearful that they will avoid treatment when they must face feared situations in-vivo.

Virtual Reality Exposure Therapy (VRET) might enable us to circumvent some of these problems, by making it possible to expose patients to their feared situations in the therapy room via VR equipment.

#### **Key features**

Five 360 degree VR films has been shot and edited to be used in VRET for SAD. Each film depicts a typical social anxiety inducing situation and consists of four to five scenes of approx. 2 minutes length, which allows the therapist to graduate the exposure.

The films are played on an Oculus Go connected to high quality headphones. The Oculus Go places a screen in front of the users face which almost fully takes up their field of view, while simultaneously blocking out visual sensory input from the real world. Motion detectors in the Oculus Go allows the user to look around the films as they play in 360 degrees around them.

To maximize ease of use for both the client and the therapist, an app for the Oculus Go has been developed which allows the user to choose the scenes they wish to see in an intuitive and simple interface.

The technical demonstration will give a brief overview of the equipment and its intended use and then allow attenders to try the Oculus Go and see the films themselves.

#### **Discussion/Conclusion**

Though current research supports the efficacy of VRET for SAD, there is still a lack of high quality RCT's in this field. The SO-REAL project will be the largest RCT to date (N=302) to investigate the efficacy of CBT augmented with VRET for SAD.

#### **Implications for everyday clinical practice of CBT**

CBT augmented with VRET for SAD might increase therapy adherence, increase user acceptance of exposure therapy, reduces risk of confidentiality breaches and reduce costs associated with transport and timing (e.g. going to the supermarket in the early or late hours as an early exposure step).

### **Virtual Reality Treatment of Aviophobia (Fear of Flying)**

**Michele Barton, Psychology Life Well and The Child & Family Institute, USA, & Adam S. Weissman, Teacher's College, Columbia University and The Child & Family Institute, USA**

#### **Background**

The Federal Aviation Administration Air Traffic Organization reports providing service to more than 43,000 flights and 2.6 million airline passengers daily. Amongst the 2.6 million flyers industrialized populations have daily, one third have anxiety associated with flying. Additionally, one third of the one third of those afflicted with that anxiety fit full criteria for diagnosis of Aviophobia or Fear of Flying (FOF; Oaks and Bor, 2010a). Several CBT protocols have been developed for alleviating associated distress to get these anxious people flying freely (Clark, 2004). In vivo Virtual Reality (VR) therapy has been utilized in the offices of tech savvy clinicians for many years (Kim et al., 2008). Historically this equipment was very expensive, extensive, and not easy to operate. Recent developments in stand-alone VR technology have revolutionized the world of Aviophobia extinction.

#### **Key features**

Although we do know one therapist fortunate enough to have his own plane that he uses for treatment purposes, this is not a luxury many clinicians have at their disposal. In recent years, advances in VR technology have allowed us non-plane-owning therapists to integrate the flying experience into the therapeutic processes. In fact, clients can now work on overcoming FOF even without the use of a computer. Oculus Go is a stand-alone unit with integrated sound and WiFi. Clinicians and clients, alike, can load flying videos available on the internet for training and exposure practice to promote fear extinction. Here at Psychology Life Well and The Child & Family Institute, VR therapy coupled with Biofeedback and Cognitive-Behavioral Therapy (CBT) has been a successful combination for many of our clients in the Tri-State area who struggle with FOF.

#### **Implications for everyday clinical practice of CBT**

Since flying is not something most people do on a regular basis, even after a successful flight, the fear can return with equal intensity. VR therapy can be a practical, cost-effective way to facilitate and optimize continued exposure and maintenance of treatment gains between flights. The Oculus Go unit, for example, is \$250, is user-friendly, and includes internal audio, head motion integration, and WiFi. With the use of this device, in conjunction with the guidance of a trained CBT therapist, many phobic individuals can overcome FOF in the comfort of their own home, engaging in regular exposures remotely between sessions to compliment the treatment process and strengthen new coping tools. The presenters look forward to demonstrating this innovative treatment technology at WCBCT in Berlin.

## **Virtual Reality for Pathological Gambling: Summary of Empirical Data on the Safety of In Virtuo Software Suite and Relevance for CBT**

**Presenters: Stéphane Bouchard, Université du Québec en Outaouais and Clin & Dev In Virtuo, Canada**

### **Introduction**

Gambling disorder is characterized by the inability to resist the urge to gamble, adversely affecting all aspects of their lives including their home, social, professional, and personal life. Cognitive behavior therapy (CBT) has repeatedly proven effective for this disorder. But CBT for gambling disorder comes with several challenges.

### **Background**

CBT has a long tradition of practicing newly acquired skill in progressively challenging and clinically relevant situations. This transfer of skill is particularly important in the treatment of pathological gambling in order to prevent relapse. In addition, the efficacy of many CBT strategies to treat gambling disorder could be increased if patients could practice them while emotionally aroused by urges to gamble. Immersions in virtual reality (VR) allows inducing gambling urges in the safety of the therapist's office to conduct various classic CBT interventions such as: (a) gradually bringing gamblers into situations that will trigger their urge to gamble; (b) identify situations, thoughts, and behaviors associated with gambling; (c) conduct cognitive restructuring with dysfunctional beliefs; and (d) work on relapse prevention. This raises practical questions, such as whether the cravings are sufficient to be clinically useful but also manageable enough to remain clinically safe. Results from five empirical studies using the VR software distributed by In Virtuo will be summarized.

### **References:**

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- Giroux, I., Faucher-Gravel, A., St-Hilaire, A., Boudreault, C., Jacques, C., & Bouchard, S. (2013). Gambling exposure in virtual reality and modification of urge to gamble. *Journal of CyberPsychology and Social Networking*, 16(3), 224-231.

### **Key features**

The Gambling Disorders Suite distributed by In Virtuo was developed at the Cyberpsychology Lab of the Université du Québec en Outaouais and the Canada research Chair in clinical cyberpsychology. Experts in the field of VR, CBT and gambling disorder developed two VR scenarios, a casino and a sports bar hosting five lottery video terminals, designed to conduct CBT while cravings for gambling can be progressively induced. The technology runs on a PC computer and either the Oculus Rift or the HTC Vive head mounted display. Immersions are sufficiently realistic to induce cravings and safely be used by licenced professional as a tool to help apply CBT strategies. The product can be purchased with 3-month and 1-year renewable licences or a one-time payment for a perpetual licence and technical support. A treatment manual has been tested and is provided to guide therapists on how to integrate VR in their treatment program.

### **Discussion/Conclusion**

This technology was well accepted and used by our therapists and others in several centers, helping them work with patients' who are more emotionally aroused during therapy sessions. It also helps identify elements that are useful for the therapy, such as high-risk situations, dysfunctional behaviors and beliefs. Cravings are induced at levels that are easily manageable by therapists during the sessions and that are not a cause for concern post-session. The advantages of VR should not be examined only in terms of the reduction of symptoms but also in terms of motivation to attract and retain patients in treatment programs, effort by the therapists, and therapists' motivation to actually use exposure to gambling cues. Finally, this tool must be used only by licensed professionals who are experienced in working with addictions and gambling.

### **Implications for everyday clinical practice of CBT**

Virtual reality (VR) can be used in the treatment of gambling disorder to provide emotionally charged contexts (e.g., induce cravings) where patients can practice CBT techniques in the safety of the therapist's office. Results presented show that can induce cravings as strong as playing on a real video lottery terminal, that cravings remain in the range of intensity that are safe to use by a CBT therapist trained in the treatment of addictions, that it can be used for cue exposure, cognitive restructuring and relapse prevention, and that it can be used in variety of culturally different contexts.

## **Immersive Technology for Mental Health: Automated Virtual Reality Cognitive Intervention for Treating Fear of Heights**

**Polly Haselton & June Dent, Oxford Sciences Innovation, United Kingdom**

### **Introduction**

Mental health disorders are very common and encompass great personal and societal costs, but far too few people receive the best treatments. Moreover, the best psychological treatments are not simply so-called talking therapies but take the form of direct

### **Key features**

Oxford VR will show their fully automated, cognitive intervention for fear of heights. Participants can use the latest consumer equipment and enter a virtual world where they are guided by an avatar coach (animated using motion and voice capture of an act

### **Implications for everyday clinical practice of CBT**

Automated treatment delivered using VR consumer hardware could become a low-cost way of providing effective interventions at scale. Automated treatment delivered using VR consumer hardware could become a low-cost way of providing effective interventions

## **ConVRself: Using Self-conversation in Virtual RModify Dysfunctional thinking**

**Presenters: Tania Johnston, Event Lab, Spain**

### **Background**

When a virtual body is spatially coincident with the participant's real body, which is seen through the eyes of the virtual body (first person perspective), the term embodiment is used to describe the sense of "being" that virtual body.

In two studies carried out in the Event Lab1,2, a conversation with oneself -alternately embodied as oneself and as one's therapist- led to an alternative way of thinking about a personal problem, and allowed improvements in its psychological outcomes.

Identifying and modifying dysfunctional thinking plays a major role in CBT, and this is usually achieved by asking the client to respond to their thoughts, either mentally or in writing. Here we propose a whole new tool to work with clients: embodied self-conversation.

### **Key features**

ConVRself is a virtual reality technology that allows people to be immersed in a virtual environment representing the office of a therapist, during a therapy session. They are first embodied in the avatar of the client, allowing them to talk to the therapist about a situation. Then they are shifted into the therapist's avatar: they look back towards the avatar of the client, that is explaining the situation (they perceive a replay of their previous actions), and can answer themselves, while still being embodied in the therapist. They can then switch back and forth between the avatar of the patient and that of the therapist, thereby maintaining a conversation with themselves tour a tour embodied in their own and the therapist's body, until they decide to stop.

The technical demonstration will allow attendants to experience self-conversation (approx. 10 min per user).

A supporting poster will be displayed, to give key findings of the experiment carried out using this technology.

### **Implications for everyday clinical practice of CBT**

ConVRself can be used by CBT therapists to work on dysfunctional thinking with their clients, by simply using the power of embodied perspective taking, or after teaching the usual CBT techniques for them to apply during self-conversation.

## **The Application of Standardised Digital Assessments and Machine Learning for the Recommendation of Optimal Treatment Plans**

**Presenters: Chris May, Mayden, United Kingdom**

### **Introduction**

There is much evidence to suggest that statistical predictions based on data can, under specific circumstances, be more accurate than those made by clinicians.

In the UK, the Improving Access to Psychological Therapies (IAPT) programme receives referrals for over 1.4m people with common mental health disorders such as anxiety and depression every year. Demographic details are collated at the point of referral for all patients, and assessments are performed.

### **Background**

The assessments of those people referred to the IAPT programme are currently designed locally and comparison across services is not possible. By making small changes to the way that clinical information is recorded, we will be able to utilize new technologies to support clinicians in selecting the treatment plan with the highest likelihood of recovery for individual patients.

This project, funded by the NHS England SBRI Healthcare initiative, is investigating the application of machine learning for predicting and recommending the best course of treatment for patients based on historical data of outcomes for similar patients.

Relevant references:

Meehl, P. 2013. Clinical Versus Statistical Prediction: A Theoretical Analysis and a Review of the Evidence

William H Crown PhD 2015. Potential Application of Machine Learning in Health Outcomes Research and Some Statistical Cautions

### **Key features**

The project aims to create a standardised digital assessment that can be adopted by all services. This will allow us to employ machine learning techniques to analyse the data collected across the country to make a recommendation on the best course of treatment for individual patients with the most likely result of recovery based on historic data from patients with similar profiles.

### **Discussion/Conclusion**

A proof of concept prototype has already been developed and we are planning to turn this into a production model in 2019.

### **Implications for everyday clinical practice of CBT**

This technology will help support clinicians in their decision making by supplying a statistical prediction of the most appropriate treatment protocol for their patients. For patients receiving CBT, the technology could, for example, recommend the optimum number of treatment sessions, or for larger services, the therapist most likely to help each patient reach recovery. The predictions will be based on anonymised national - and eventually international - data so even therapists working independently can draw on a wider body of experience.

## **The Resonator ©, a Personalized Internet-Based System Designed to Support and Augment Psychotherapy**

**Arnon Rolnick, The Siach Institute for Psychotherapy, Israel, & Dror Gronich, Private Clinic, Israel**

### **Background**

Recent years have witnessed a proliferation of CBT applications. A study by the IMS Institute for Healthcare Informatics 2015 found that the number of health and wellness apps available to consumers is over 90,000. However, adoption of such mental health interventions for common psychological interventions remains low. (Lipschitz 2019). We present a personalized system that encapsulates a therapeutic insight that is perceived meaningful, central and important

We will demonstrate the Resonator ©, a large and scalable internet-based information system, capable of serving the psychotherapy community with a variety of applications.

### **Key features**

1. Resonator©: a personalized recurring **reminder** co-created by therapist and patient and encapsulating emotionally provoking therapeutic insights that are perceived meaningful, central and important.
2. Links to CBT homework, videos, audio files and other relevant resources.
3. Meaningful images can be attached
4. Built in question-building tools used to intrigue the patient to follow the therapeutic content
5. Question-building tools allowing the patient to report their condition in real-time for therapist and/or clinic manager to follow.
6. Therapist follow-up tools to observe and analyze the patient's periodical responses.
7. A patient no-subscription policy. Reminders are being sent by email so patients can operate the reminder actions directly from their smartphones and are not required to install anything or subscribe to any service.
8. Awareness conqueror: The Resonator follows patients in their daily life allowing them to maintain that meaningful and personal content in their consciousness.

### **Implications for everyday clinical practice of CBT**

1. Enables continuity and momentum in the therapeutic process by letting the therapeutic content resonate between meetings. Therapy is more effective like that.
2. Dramatically lowers drop-out rate - as commitment level and sense of ownership increases, plus level of bonding into therapy is measured right from the start.



3. Better and faster comprehension for patient real status
4. Effectiveness focus: Identifying effectiveness of selected therapeutic approach - faster than in traditional ways
5. A written therapeutic contract: a common language defining what the issue in therapy is including ways to measure both severity and improvement
6. The Resonator includes tools to model any therapeutic protocol. Not limited to any specific one.
7. Drastic increase in CBT assignments adherence
8. Increased sync between patient and therapist.

### **MindLAB Set: Integrating Applied Neuroscience and Biofeedback into Cognitive and Behavioural Therapies**

**Presenters: Tullio Scrimali, University of Catania, Italy**

#### **Introduction**

Tullio Scrimali recently developed and proposed a new scientific topic named Neuroscience-Based Cognitive Therapy (Scrimali, 2012).

During the presentation, a new method of Neuroscience-Based Cognitive Therapy, coming from Applied Neuroscience laboratories, will be illustrated and discussed. This new device, named MindLAB Set, constitutes an integrated system for Applied Psychophysiology and Biofeedback, developed by Scrimali at the research laboratories of the Institute of Cognitive Science.

MindLAB Set makes possible, in the clinical setting of CBT, to monitor electrodermal activity in order to perform some instrumental psychodiagnostic procedures and some emotional self-regulation techniques such as Biofeedback, Mindfulness and Imagery.

The set is composed of a data acquisition unit, a pair of dry, stainless steel bipolar electrodes, an interface device for connection to a computer, two integrated programmes: MindSCAN & Psychofeedback and a booklet with any information necessary to set up and using the MindLAB Set.

MindLAB Set works when connected to a computer where the software included in the set must be installed.

#### **Background**

MindLAB Set is the culmination of an effort of development, engineering, and experimentation undertaken to build an integrated system of hardware, software, database, and know-how, capable of merging high level innovative scientific and technological content at a relatively modest price, in order to make it affordable for individual professionals, as well as public and private institutions entrusted with the treatment of psychological problems. Until now, one of the main obstacles to the dissemination of some Clinical Psychophysiology methods was not having access to hardware that was both scientifically valid and available at an affordable price, and that provided the possibility of a short period of training for learning how to use it.

#### **Key features**

MindLAB Set is the culmination of an effort of development, engineering, and experimentation undertaken to build an integrated system of hardware, software, database, and know-how, capable of merging high level innovative scientific and technological content at a relatively modest price, in order to make it affordable for individual professionals, as well as public and private institutions entrusted with the treatment of psychological problems. Until now, one of the main obstacles to the dissemination of some Clinical Psychophysiology methods was not having access to hardware that was both scientifically valid and available at an affordable price, and that provided the possibility of a short period of training for learning how to use it.

During technical presentation, Professor Scrimali will illustrate how to use a MindLAB Set when working as a CBT Therapist. The presentation will be mostly practical. A role-play will be activated with the participation of the audience.

According to the recent monograph of Inna Z. Khazan (Kazan, 2013), any biofeedback equipment can be classify as follows:

Large-Scale Comprehensive Professional Device

Smaller Scale Devices

Inexpensive Easily Available Tools

First items typically include many channels for measuring some different biological and psychophysiological parameters. They are expensive and require a long training for being used. They are designed mainly for research laboratories or advanced clinical applications.

Smaller scale devices are able to monitorize just one or two biological parameters and they are a perfect choice for clinician because they are affordable and easy to be used. Some of them are autonomous, other are computer based.

Inexpensive Easily Available Tools are consumer oriented and they are not suitable for professional clinician. MindLAB Set is "Smaller Scale, Computer Based Device" and it works with an original and dedicated software, developed by Prof. Tullio Scrimali, named MindSCAN & Psychofeedback. It includes also a large and accurate database in order to have a strong statistical reference for electrodermal data, which have been collected.

#### **Discussion/Conclusion**

MindLAB Set is one of few "Smaller Scale Biofeedback Devices" to be based on a large and authoritative literature (see: Scrimali, 2012). MindLAB Set has been studied for making able any clinician to start very quickly to work without any problem, both with the software and the hardware, but also counting on a scientifically tested devices, actually used by qualified clinicians all around the World in four Continents (America, Europe, Asia and Africa). MindLAB Set is showed and demonstrated during the most important scientific conferences of Cognitive and Behavioural Therapy (CBT).

#### **Implications for everyday clinical practice of CBT**

Assessment: using an objective tool for monitoring arousal for both monitoring arousal both for diagnosis and clinical monitoring;

Therapy: integrating Biofeedback into CBT in order to enhance the patients self-regulation and coping skills

### **DCBT: Demagnifying the Challenges of Diversity and Cultural Gap of Disseminating Evidence-Based Practice Through Hybridization of CBT and Design Thinking (DT)**

**Presenters: Sirirat Ularntinon, Queen Sirikit National Institute of Child Health, Thailand, & Prowpannarai Mallikamarl, Artipania Co. Ltd, Thailand**

#### **Introduction**

Currently, cognitive behavioral therapy (CBT) has been established as an evidence-based psychological intervention in youth across clinical disorders with promising outcomes. Being theoretically coherent, but methodologically permissive enables CBT to be creatively flourished and flexibly disseminated into various settings including educational setting. However, working under limited resources in divergent socio-cultural context with different strengths and obstacles, implementing evidence-based mental health program emerging from the Western world could be a challenge. Since there is no such thing as "one size fit all" in real-world mental health care of youth, a novel process to

advance the implementation of evidence- based intervention into everyday life of young people in school to maximize the accessibility and acquisition is needed.

### **Background**

Design Thinking (DT) is a method of creative problem-solving, originally adopted from professional design field to facilitate innovative process in business organization and educational milieus. DT involves human- centered, empathy-driven, team- based work with focusing on how people think and learn. Based on similar core principles of CBT and DT including problem- focus, time- limited, and action- oriented embedded within collaboratively work, a novel procedure: “Designing Cognitive Behavioral Thinking (D-CBT)” have been developed from hybridizing cognitive behavioral theory and strategies with design thinking's mindset, skillset, and toolset. The powerful and flexible process of design thinking coupled with the robust theoretical foundation of cognitive behavioral strategies are then applied through structured group activities.

### **Key features**

1. The construct and tool-box of D-CBT will be systematically presented.
2. Audieees will have a brief first- hand experience of the process and procedures of D-CBT to empathetically understanding a complex problem through a wider lens of D-CBT and discovering a new way of defining a problem and collaboratively create novel solutions through ideation and quick prototyping.

### **Discussion/Conclusion**

Design approach of D-CBT enables CBT to address the unmet needs as well as unresolved complex bio-psycho-sociocultural issues associated with mental health problems of underprivileged youth waiting for holistic, innovative, and feasibly applied solution. Through the co- creation process of D-CBT, inputs from multiple stakeholders are facilitated and collective shared vision are created. All partnerships working with mental health issues in youth will be able to effectively address the logistical and methodological challenges associated with administering interventions and how to flexibly modify the procedure to better align with different demands and deficits particularly in low- resource setting that standard conventional CBT may not be an option.

### **Implications for everyday clinical practice of CBT**

D-CBT hybrids could be a potential method of appplying CBT to tackle real- world challenges of dissemination and implementation of evidence-based practice into school or milieu in low resource settings where youth spend most of their time everyday.