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4th International Conference of Metacognitive Therapy

Conference Organizing Committee

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SCIENTIFIC COMMITTEE

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Dr. Sverre Urnes Johnson, Modum Bad Psychiatric Clinic, Norway

Dr. Lora Capobianco, Greater Manchester Mental Health, UK

Conference Welcome

Dear Delegates,

A very warm welcome to Prague and the Fourth International Conference of Metacognitive Therapy.

The scientific programme covers a broad range of psychological disorders and processes including Metacognitive Therapy in physical health conditions. There are keynote addresses and master-clinician presentations and poster sessions alongside the symposia and open-papers to maximise exposure to new research, developments, and skills.

For the first time at this conference we have chosen to run parallel sessions. Whilst this creates some dilemmas in deciding which presentations to attend and can reduce numbers at each presentation this has been a necessity to accommodate the high volume of quality MCT research.

Please take full advantage of the scientific and social programme to update your knowledge and skills and develop and strengthen alliances and help us to make this conference another professionally valuable, memorable, and enjoyable experience.

Hans M. Nordahl, Ph.D (Conference Chair)

Adrian Wells, Ph.D (Conference Chair & Chair of the Scientific Committee)

General Information

Registration

All delegates must register and pick up their conference packs and badges. The conference registration desk is located in the foyer. Registration will be open at the following times:

- April 30th (Pre-Congress Workshop) 08.00 am 1:00 pm
- May 1st (Conference) 08.00 am 9.00 am & 11:30 am 12:00 pm
- May 2nd (Conference) 08.00 am 9.00 am & 11:30 am 12:00 pm

Poster Sessions

Poster submissions will be on display throughout the conference. Posters should be mounted on the display boards in the display area before the first refreshment break (11:30 am) on May 1st. Delegates are free to view the posters at any time during the conference. Authors should attend their posters and be available for discussions during the refreshment breaks.

Security

Please do not leave valuables in the workshop rooms or the conference hall during the refreshment and lunch breaks. It is important that badges are worn at all times.

Refreshments

Tea, coffee, and water are provided free of charge to all delegates in the morning and afternoon. Refreshments and lunch are included in the registration fee and will be served in the foyer outside Mayakovsky Hall.

Conference Reception and Party

A dinner and music has been organized at the National House of Vinohrady on May 1st in Mayakovsky Hall. Doors will open at 7:15 pm with dinner being served at 8:00 pm. An evening composed of traditional Czech food and drinks, and a live band to dance the night away. Tickets are included as part of your conference registration fee.

Badges

A badge is provided with your conference pack. You must wear your badge at all times during the conference. Admission to the symposia and social events will be restricted to badge holders only. If you lose your badge contact the registration desk for a replacement.

Workshop Schedule

Pre-Congress Skills Based Workshop (April 30th)

| - | Morning Session (9 am - 12 pm; Coffee Break 10:30 am - 11 am) | | | |
|----------------------|--|---|---|--|
| Workshop & Presenter | Developing Greater Skill and Understanding in the Use of Meta- level Discourse in MCT | MCT for Health Anxiety | MCT for Obsessive Compulsive Disorder in Individual and Group Formats | |
| | Profs. Adrian Wells & Hans Nordahl | Dr. Robin Bailey | Dr. Costas Papageorgiou | |
| Location | Rais Hall | Meeting Room 15 | Balcony 1 | |
| | Afternoon Session (1:30 pm - 4:30 pm; Coffee Break 3:00 pm - 3:30 pm) | | | |
| Workshop & Presenter | The Advanced Use of Detached Mindfulness | Metacognitive Therapy for Patients with Emotionally Unstable Personality: Clinical Application and Management | MCT for Depression in Individual and Group Formats | |
| | Prof. Adrian Wells | Prof. Hans Nordahl | Dr. Costas Papageorgiou | |
| Location | Rais Hall | Meeting Room 15 | Balcony 1 | |

Conference Schedule

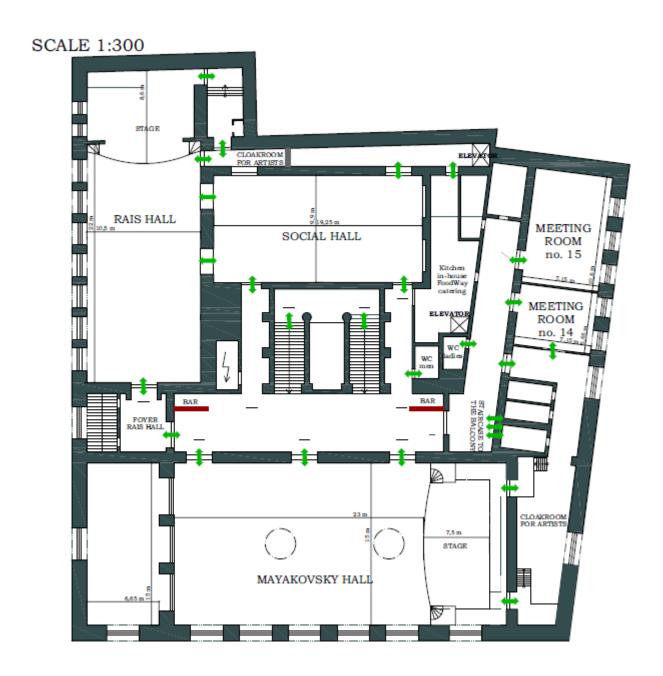
Conference (May 1st)

| Mayakovsky Hall | Rais Hall | |
|---|--|--|
| Conference Registration (Mayakovsky Hall) | | |
| Opening Address (Mayakovsky Hall) | | |
| Symposium | Open Paper | |
| Metacognition in Physical | MCT for Interpersonal | |
| Illnesses | Problems | |
| Symposium | Open Paper | |
| Attitudes to MCT & Cost of | MCT for Anxiety Disorders | |
| Delivering MCT | | |
| Coffee Break | | |
| Keynote: Dr. Costas Papageorgiou | | |
| Lunch | | |
| Symposium | Open Paper | |
| Metacognition Over Time | MCT Applications & | |
| | Innovations | |
| Coffee Break | | |
| Symposium | Symposium | |
| Metacognitive Model and | Metacognitive Research: | |
| Personality | Childhood Adversity, Anger, | |
| | and Bipolar Disorder | |
| Keynote: Prof. Adrian Wells | | |
| | Conference Registration Opening Address Symposium Metacognition in Physical Illnesses Symposium Attitudes to MCT & Cost of Delivering MCT Coffee Keynote: Dr. Cost Lure Symposium Metacognition Over Time Coffee Symposium Metacognitive Model and Personality | |

Conference (May 2nd)

| | Mayakovsky Hall | Rais Hall | |
|---------------------|-----------------------------|---------------------------|--|
| 9:30 am - 10:30 am | Symposium | Symposium | |
| | Metacognitive Therapy and | Metacognitive Therapy for | |
| | Addictive Behaviour | Psychosis | |
| 10:35 am - 11:35 am | Symposium | Open Paper | |
| | Metacognitive Theory and | MCT for Depression | |
| | Therapy in OCD | - | |
| 11:35 am - 12:00 pm | Coffee Break | | |
| 12:00 pm - 1:00 pm | Keynote: Dr. Bruce Fernie | | |
| 1:00 pm - 2:00 pm | Lunch | | |
| 2:00 pm - 3:00 pm | Symposium | Symposium | |
| | Neurobiology of | Metacognitive Processes | |
| | Metacognitive Therapy | and Eating Disorders | |
| 3:00 pm - 3:30 pm | Coffee Break | | |
| 3:30 pm - 4:30 pm | Keynote: Prof. Hans Nordahl | | |

Venue Layout



Pre-Congress Workshops (April 30th)

These workshops are designed for therapists and researchers at all levels who want to learn the basic MCT model and how to apply this in developing case conceptualizations and implementing meta-level changes. Workshops will use a combination of didactic presentation and video/role play in shaping therapeutic experiences and skills

You will receive a certificate of attendance following the workshops that can used as proof of continuing professional development.

Workshop 1: Developing Greater Skill and Understanding in the Use of Metalevel Discourse in MCT



Presented by: Prof. Adrian Wells, University of Manchester, UK; Greater Manchester Mental Health Foundation Trust, UK & Prof. Hans M. Nordahl, Norwegian University of Science and Technology, Norway

The meta-level discourse is fundamental in the correct and optimal practise of MCT, but this is one of the core

skills that therapists find difficult. This difficulty arises from several factors that among others includes the dissimilarity that exists between the MCT model and the focus of other psychotherapy approaches, the need to contain the clients own narratives, the ability to recognise object-level drift, and negative effects of therapists beliefs about the necessary 'ingredients' of good psychotherapy. In this workshop, which is designed for therapists at all levels of competency, the MCT discourse is examined in relation to achieving the following central goals in the process of treatment: (1) socialisation to the model; (2) bridging and motivating the client; (3) implementing detached mindfulness; (4) effective change within the Attention Training Technique; (5) challenging metacognitive beliefs. The workshop will involve didactic presentation, live use of role-play to demonstrate skills and processes and videotape demonstration. The workshop is suitable for MCT therapists at all levels.

Reference:

Wells, A. (2009). *Metacognitive therapy for anxiety and depression*. New York: Guilford Press. (*pp. 41-50*).

Workshop 2: MCT for Health Anxiety



Presented by: Dr. Robin Bailey, Liverpool John Moores University, UK

In this workshop the metacognitive model of health anxiety will be presented and participants will learn how to use this as a basis of case

conceptualisation and treatment (Bailey & Wells, 2013, 2014, 2015). It will focus on interpersonal issues such as how to avoid working with the content of patient's catastrophic misinterpretations when disease conviction is high and subtly providing "medical" reassurance. The workshop will also examine metacognitions problematic in health anxiety, such as, 'beliefs about biased thinking' and how "feeling better" can be a major trigger for relapse.

Workshop participants will learn:

- 1. The metacognitive model of health anxiety.
- 2. Metacognitive treatment of health anxiety.
- 3. How to avoid engagement with the content of patients' distress.
- 4. To identify problematic metacognitive beliefs that can lead to relapse.

Workshop 3: MCT for Obsessive Compulsive Disorder in Individual and Group Formats



Presented by: Dr. Costas Papagergiou, Priory Hospital, UK

Obsessive-compulsive disorder (OCD) can be a complex mental health problem to treat. Growing empirical evidence supports the implementation of metacognitive therapy (MCT; Wells, 2009) for OCD in both individual (Fisher & Wells, 2008; Shareh et al., 2010; van der Heiden et al., 2016) and group (Papageorgiou et al., 2018; Rees & van Koesvel, 2008) formats to maximise therapeutic effectiveness and addresses fundamental limitations of

current treatments. MCT for OCD specifically aims to modify two domains of metacognitive beliefs:(1) beliefs about the significance or dangerousness of intrusive thoughts and feelings and (2) beliefs about the need to perform rituals, both of which have been shown to be more closely involved in the maintenance of OCD than inflated responsibility, intolerance of uncertainty, and perfectionism. The overall objective of this skills-based clinical workshop is to outline the components of MCT for OCD and highlight effective practical adaptations for its delivery in group formats. The following areas will be covered: an overview of the phenomenology and current treatment of OCD; the metacognitive model of OCD; summary of empirical evidence supporting the metacognitive model and therapy of OCD; assessment and measurement of OCD and other relevant constructs; case conceptualisation; socialisation; detached mindfulness; exposure and response commission (ERC); metacognitively-delivered exposure and ritual prevention; challenging metacognitive beliefs; behavioural experiments; developing new plans for processing, and relapse prevention. A combination of lecture, discussion, experiential, role-plays, and case presentations will be used to facilitate this workshop.

Key learning objectives:

- (1) To gain up-to-date knowledge of research in metacognitive theory and therapy of OCD
- (2) To understand the principal features of the metacognitive model and therapy of OCD
- (3) To become familiar with the metacognitive treatment strategies and techniques for OCD
- (4) To gain insight into effective adaptations of MCT for OCD for its implementation in group formats

Workshop 4: The Advanced Use of Detached Mindfulness



Presented by: Prof. Adrian Wells, University of Manchester, UK & Greater Manchester Mental Health Foundation Trust, UK

Detached mindfulness is one of the core techniques of MCT. It requires that the recipient develops a specific stance in relation to thoughts that is coupled with the regulation of specific forms of maladaptive

processing. The technique can be used to modify different components of metacognition, including: metacognitive beliefs, flexible cognitive control, meta-awareness, metacognitive goals and the subjective model of mind. This workshop is aimed at deepening the therapist's conceptual understanding of detached mindfulness and how it can be used to produce these different types of change. These methods will be illustrated with reference to treating a range of disorders that includes obsessive-compulsive disorder and complex cases involving negative self-concept. The workshop will involve didactic presentation, live use of role-play to practise skills and processes and videotape demonstrations. The workshop is suitable for MCT therapists at all levels.

Reference:

Wells, A. (2009). *Metacognitive therapy for anxiety and depression*. New York: Guilford Press. (pp. 71-88).

Workshop 5: Metacognitive Therapy for Patients with Emotionally Unstable Personality: Clinical Application and Management



Presented by: Prof. Hans M. Nordahl, Norwegian University of Science and Technology, Norway

Metacognitive therapy (MCT) is based on the Selfregulatory executive function model (S-REF), which states that psychological disorders are caused by failure of self-regulation as a result of executive function biases and problems with maladaptive

mental and behavioural strategies. In the current workshop I will present the treatment and how it is applied to patients with emotional instability personality problems. There are three areas which are addressed; 1) Modifying self-defeating beliefs and behavioural strategies, 2) Improving the executive functions, attentional processes, and self-regulation of thinking and 3) Increasing functional skills and developing goals of future social skills and behaviour

The program is named the ERIS protocol and the first phase lasts a year and from there the community services continue the follow-up of the patient. Follow-up of job placement and community psychiatric service during and after treatment are important for continuous improvement. In an open trial we have found that this approach was associated with improving stability in affect and behaviour and also reducing self-defeating beliefs and behaviour. This precongress workshop will present how to use the ERIS program with these patients and how to manage the challenges that commonly arise in working with these clients.

Workshop 6: MCT for Depression in Individual and Group Formats



Presented by: Dr. Costas Papagergiou, Priory Hospital, UK

Growing empirical evidence supports the implementation of metacognitive therapy (MCT) for rumination and depression in both individual (Hagen et al., 2017; Wells et al., 2009, 2012) and group (Dammen, Papageorgiou & Wells, 2014; Papageorgiou & Wells, 2015) formats to maximise therapeutic effectiveness, prevent depressive relapse or

recurrence, and address fundamental limitations of current treatments. MCT for depression aims to remove the metacognitive causes of rumination, which is a core process implicated in the maintenance and perpetuation of depression. The overall objective of this skills-based clinical workshop is to outline the components of individual MCT for depression (Wells, 2009; Wells & Papageorgiou, 2004) and highlight effective practical adaptations for its delivery in group formats. The following key areas will be covered: the metacognitive model of rumination and depression; measurement of rumination and related constructs; case conceptualisation and socialisation; attention training and detached mindfulness; modifying metacognitive beliefs; developing new plans for processing, and relapse prevention. A combination of lecture, discussion, experiential, role-plays, and case presentations will be used to facilitate this workshop.

Key learning objectives:

- (1) To gain up-to-date knowledge of the phenomenology of rumination and its relationship with depression
- (2) To understand the principal features of the metacognitive model and therapy of rumination and depression
- (3) To become familiar with the specific metacognitive treatment strategies and techniques for depression
- (4) To gain insight into effective adaptations of MCT for depression for its implementation in group formats

Keynote Addresses

Keynote 1: Metacognitive Therapy: Where are we now and where next?



Professor Adrian Wells

University of Manchester, UK & Greater Manchester Mental Health Foundation Trust, UK

Advances in metacognitive theory and therapy have gained significant pace in the last two years. Research on neuropsychological correlates of fundamental processes such as the CAS and the effects of treatment on brain function are particularly welcome. Meanwhile the results of randomised controlled trials and meta-analyses of treatments confirm the status of MCT as a highly effective evidence-based treatment that could be more effective than CBT. Newer directions in treatment have involved applications to anxiety and depression in physical illness including cardiac problems and cancer. In this keynote I will present an oversight of where we are now and where we need to go next in the development of MCT. I will argue that the time has come for an important theoretical challenge: modelling in greater detail the human metacognitive system. I will describe a model, the implications it offers for interpreting treatment mechanisms and the potentially useful directions it presents for developing future clinical methods.

Keynote 2: Translational Research: Developing Metacognitive Therapy for Motor Fluctuation-Related Distress in Parkinson's Disease



Dr. Bruce Fernie

Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK & HIV Liaison Service, South London and Maudsley NHS Foundation Trust, London, UK

High rates of anxiety and depressive symptoms (psychological distress) are found in many long-term health conditions (LTHCs), such as Parkinson's disease (PD), which significantly worsen quality of life and amplify the cost of care. There is evidence from RCTs that traditional CBT approaches to treat distress in LTHCs are effective, though effect sizes appear smaller when compared with active rather than passive control conditions. Metacognitions are associated with distress in LTHCs and the efficacy of Metacognitive Therapy (MCT) in treating psychiatric disorders is supported by a growing evidence-base; indeed, recent meta-analyses suggest that MCT results in superior outcomes in the treatment of anxiety and depressive disorders compared to CBT. In this keynote address, I will describe the journey we are taking to translate empirical research into a clinical intervention; specifically, an MCT for motor fluctuation-related distress in PD. This research is supported by grants awarded by the National Institute of Health Research Maudsley Biomedical Research Centre.

Keynote 3: Metacognitive therapy of early complex trauma- CPTSD



Prof. Hans Nordahl

Norwegian University of Science and Technology

The 11th revision to the World Health Organization's International Classification of Diseases (ICD-11, 2018) proposes two distinct conditions in trauma: Posttraumatic Stress Disorder (PTSD) and Complex PTSD (CPTSD). By comparison, the new complex PTSD diagnosis is broader and is comprised of all three symptoms of PTSD, but in addition includes difficulty regulating emotion, anxiety and depression; feelings of shame, guilt, or failure and conflictual interpersonal relationships. Metacognitive therapy (MCT) is proving to be an effective and brief treatment for a broad range of psychological disorders, but there are no investigations of its feasibility and effect on chronic trauma and complex PTSD (CPTSD). The topic of the presentation will be on the specific characteristics of CPTSD and early trauma and illustrate useful clinical applications of MCT to complex trauma.

Master Clinician Address

Keynote 4: Group Metacognitive Therapy for Obsessive-Compulsive Disorder: Evidence and Strategies for Maximising Effectiveness



Dr. Costas Papageorgiou Priory Hospital, UK

Although cognitive-behaviour therapy (CBT) is currently the recommended treatment of choice for obsessive-compulsive disorder (OCD), more than a third of patients have a minimal or no response to this intervention or continue to have significant residual symptoms (Fisher & Wells, 2005; Wilhelm, 1997). However, empirical evidence has shown that metacognitive therapy (MCT, Wells, 2009) for OCD delivered in individual (Fisher & Wells, 2008; Shareh et al., 2010; van der Heiden et al., 2016) or group (Papageorgiou et al., 2018; Rees & van Koesvel, 2008) formats can assist in maximising therapeutic effectiveness and addressing fundamental limiations of CBT. More recently, a large-scale, naturalistic study in a routine clinical service for OCD showed that group MCT led to significantly higher clinical response rates than group CBT (Papageorgiou et al., 2018). In this presentation, the results of this recent study will be discussed along with the strategies that have been found to be helpful in preventing common pitfalls and maximising the effectiveness of group MCT for OCD.

Symposia

Symposium: Metacognition and Psychological Distress in Physical Illnesses

Chair: Dr. Lora Capobianco

1) <u>Metacognitive Beliefs in Physical Illnesses: A Systematic Review and Meta-Analysis</u> Lora Capobianco¹, Cintia Faija², & Adrian Wells^{1,2}

Greater Manchester Mental Health Foundation Trust, UK1, University of Manchester, UK2

Metacognitive beliefs are central to the metacognitive model of psychological disorder, which states that metacognitive beliefs play a causal role in the development and maintenance of anxiety and depression. There is growing evidence that metacognitive beliefs are associated with psychological distress in physical illnesses. Therefore, a systematic review and metaanalysis was conducted to evaluate the association of metacognitive beliefs to anxiety and depression in physical illnesses, and to evaluate the contribution of metacognitive beliefs to psychological distress in this context. To evaluate the association between metacognitive beliefs and anxiety and depression in physical illnesses, and to evaluate the unique contribution of metacognitive beliefs to distress levels. A systematic review and meta-analysis was conducted on metacognitive beliefs in anxiety and depression in physical illnesses until December 2018, using PsychInfo, PubMed, Web of Science, and CINAHL plus. Papers were required to report on a physical illness, include a measure of psychological distress, and metacognitive beliefs (MCQ-30 or MCQ-60). The review is currently being undertaken and papers are being reviewed for inclusion. Initial searches provided 1541 results, after which 812 were removed as they were duplicates, and an additional 690 were removed for not meeting the inclusion criteria. 39 full-text papers were revised. The results and implications concerning any contribution of metacognitive beliefs to anxiety and depression in physical illnesses will be discussed.

2) <u>Assessing Metacognitions in Cardiac Patients with Co-Morbid Anxiety and/or Depression</u> Cintia Faija¹, David Reeves¹, Calvin Heal¹, & Adrian Wells^{1,2}

University of Manchester, UK¹, Greater Manchester Mental Health Foundation Trust, UK²

The evaluation of effective psychological therapies for anxiety and depression in chronic illness is a priority. Metacognitive Therapy is grounded in evidenced-based theory, proposing that metacognitions play a key role in the development and maintenance of emotional disorders. The aim of this study is to examine the factorial structure, validity and reliability of the Metacognitions Questionnaire 30 (MCQ-30) in a cardiac population with co-morbid anxiety and/or depression symptoms. A clinical sample of 440 participants was recruited from UK National Health Services. Confirmatory factor analysis was used to assess the two previously established factor structures of the MCQ-30, i.e. a correlated 5-factor model and a bi-factor model. Results showed a good fit for the two models of the MCQ-30. In addition, the MCQ-30 accounted for additional variance in predicting anxiety, depression and psychological distress after controlling for age and gender. The MCQ-30 demonstrated good construct validity, internal consistency and utility to assess metacognitive beliefs and processes in cardiac patients, supporting its use in medical samples experiencing mild to severe anxiety and/or depression.

3) <u>Factors Associated with Symptoms of Depression, Health Status, and Metacognitive Beliefs in a Population Undergoing Cardiac Rehabilitation</u>
Gemma Shields¹, Adrian Wells^{1,2}, Lora Capobianco², & Linda Davies¹

University of Manchester, UK¹, Greater Manchester Mental Health Foundation Trust, UK²

Patients undergoing cardiac rehabilitation may have higher rates of depression and reduced overall health compared to the general population. The MCT-Pathway study is an integrated clinical and economic programme evaluating metacognitive therapy (MCT) in the cardiac rehabilitation pathway. To explore and identify clinical, demographic and socio-economic factors associated with symptoms of depression, overall health status and associated utility values and metacognitive beliefs. Baseline data collection from the MCT-pathway study is complete. Descriptive statistics and multi-level/structural equation regression models will identify key associations and potential causal relationships between patient and organizational characteristics and three key measures (Hospital Anxiety and Depression Scale [HADS], Metacognitions Questionnaire 30 [MCQ-30] and the EQ-5D-5L). The study will report on which characteristics are statistically significantly associated with each measure and whether these key characteristics are potential mediators or moderators of patient outcome. The study will identify characteristics that are associated with key clinical measures, this may help to inform researchers and policy makers when deciding how interventions could impact their population.

Symposium: Patient and practitioner attitudes towards group MCT and its estimated cost of delivery in cardiac rehabilitation patients.

Chair: Dr. Rebecca McPhillips

1) <u>Cardiac Rehabilitation Patients' Views and Experience of Group Metacognitive Therapy: A</u> Nested Longitudinal Study

Rebecca McPhillips¹, Peter Fisher², Peter Salmon², & Adrian Wells^{1,3}

University of Manchester, UK¹, University of Liverpool, UK², Greater Manchester Mental Health Foundation Trust, UK³

Metacognitive therapy (MCT) has been shown to alleviate psychological distress in different health contexts, and a randomised controlled trial of Group-MCT for cardiac rehabilitation (CR) patients is currently underway. We aimed to explore patients' understandings and experiences of Group-MCT, as part of the PATHWAY trial to improve psychological distress in CR patients. A nested longitudinal qualitative study was implemented. Semi-structured interviews were conducted with 21 patients in the PATHWAY trial after Group-MCT. Data was analysed using the constant comparative approach. Patients who understood MCT described their distress in metacognitive terms and had developed new ways of relating to negative thoughts. Those who misunderstood imposed their own meanings on MCT, most commonly that the aim was to 'think positively'. Patients reported using worry delay and the spatial attention control exercise (SPACE) most often, however some struggled to apply these techniques in the context of their cardiac health. The implications of these findings for the delivery of MCT to CR patients are discussed, so that areas patients find challenging in the context of on-going physical illness can be targeted.

2) <u>Cardiac rehabilitation practitioners' views and experiences of being trained in, and delivering, Group Metacognitive therapy: a nested longitudinal study</u>
Rebecca McPhillips¹, Peter Fisher², Peter Salmon², & Adrian Wells^{1,3}

University of Manchester, UK¹, University of Liverpool, UK², Greater Manchester Mental Health Foundation Trust, UK³

Metacognitive therapy (MCT) alleviates psychological distress in various health contexts. The PATHWAY trial aims to evaluate Group-MCT, delivered by cardiac rehabilitation (CR) practitioners, for distressed cardiac patients. We aimed to explore barriers and enablers concerning CR practitioners' acquisition of knowledge and skills for the delivery of Group-MCT. A nested longitudinal qualitative study was conducted. Interviews were completed with 9 CR practitioners before and during training, and after delivery of Group-MCT. Data was analysed using the constant comparative approach. Before Group-MCT training, practitioners took an eclectic approach to supporting psychologically distressed patients. Training in Group-MCT resulted in practitioners gaining some knowledge and skills for intervention delivery. During training, practitioners' also described dilemmas they associated with Group-MCT, including the difficulty of engaging with patients while retaining fidelity to the model, and practitioners reported remaining eclectic in their approach. After delivery of Group-MCT, practitioners reported resolving dilemmas, through both practice and using MCT techniques themselves, and this appeared to result in self-perceived improved competency in Group-MCT. The implications that these findings have for training CR, and other non-specialist healthcare practitioners to deliver complex psychological interventions are discussed.

3) <u>Costing Metacognitive Therapy in the UK</u> Gemma Shields¹, Adrian Wells^{1,2}, Lora Capobianco², & Linda Davies¹

University of Manchester, UK1, Greater Manchester Mental Health Foundation Trust, UK2

The MCT-Pathway study is an integrated clinical and economic programme evaluating metacognitive therapy (MCT) in the cardiac rehabilitation pathway. We aimed to identify and estimate the costs of implementing MCT in different trial and routine practice settings, with a focus on the population undergoing cardiac rehabilitation. Data is being collected on the components of MCT (such as staff training, staff time and transport costs) to estimate the total costs of providing therapy to each patient, including development, fixed and variable costs. The study will report the costs of the key components of MCT intervention and how these differ by setting (e.g. according to the healthcare staff and group sizes). The study will identify key components of the costs of MCT therapy and will provide an estimate of a per session cost and total cost per participant. This will provide researchers and policy makers with information about the cost of implementing MCT in practice and future research.

Symposium: The Temporal Relationships Between Metacognitions, Distress, and Recovery Chair: Dr. Lora Capobianco

1) <u>What comes first: Metacognition of Negative Emotion? Testing Temporal Relations Predicted by the S-REF Model</u>

Lora Capobianco, Measha Bright, Calvin Heal, Adrian Wells

Greater Manchester Mental Health Foundation Trust, UK1, University of Manchester, UK2

The Self-Regulatory Executive Function model predicts that metacognition causally contributes to negative emotional states and emotional disorder. Therefore in time-series data involving repeated measurements, metacognitions should predict subsequent changes in emotion better than emotion predicting later changes in metacognition. We aimed to evaluate the temporal precedence of metacognition and symptoms of anxiety and depression 265 participants completed a questionnaire battery three times over a two month period. Structural equation modelling using cross-lagged panel analysis was used to evaluate the impact of metacognitive beliefs on psychological distress symptoms over time. Metacognitive beliefs were found to predict subsequent symptoms of anxiety while symptoms of anxiety predicted later metacognition. There were no significant associations when depression was included, however this is likely due to low levels of depression within the sample. The findings further support the S-REF model, such that the results are consistent with experimental and prospective studies supporting metacognitive beliefs as a causal mechanism in psychological distress symptoms.

2) <u>Metacognitive Therapy versus Cognitive Behavioural Therapy: A Network Approach</u> Sverre Urnes Johnson¹ & Asle Hoffart¹

Modum Bad Psychiatric Clinic, Norway¹

A network perspective on mental problems represents a new alternative to the latent variable perspective. Diagnoses are assumed to refer to a causal network of observable mental problems or symptoms (observables). The observable symptoms that traditionally have been considered indicators of latent traits (disorders) are taken to be directly related causal entities. Few studies have investigated how different therapies affect a network-structure of symptoms and processes. In this study, three anxiety symptoms, three depression symptoms and mechanisms in the form of cognitions, metacognitions, worry and threat monitoring were selected. The network structure over the course of therapy for Metacognitive therapy (MCT) and Cognitive behavioral therapy (CBT) was investigated. It was hypothesized that worry, attention, and metacognition would be important nodes in MCT and that cognitions would be important in CBT. The data used in the analysis are from a RCT where 74 patients with comorbid anxiety disorders were randomized to either transdiagnostic MCT or disorderspecific CBT. Symptoms and mechanisms were measured every week. The data was analyzed using the multilevel vector autoregressive (mIVAR) model, which is currently the most developed method to analyze multivariate time series in multiple subjects and construct networks. The results indicate that there were different networks of symptoms and mechanisms in MCT and CBT. Central nodes in both treatments are worry and attention, however the node of negative metacognitive beliefs about uncontrollability was more central in the MCT treatment. The results are consistent with predictions from the S-REF model. Implications for treatment are discussed.

3) A randomized controlled trial of metacognitive therapy for depression: Analysis of 1-year follow-up

Odin Hjemdal¹, Stian Solem¹, Roger Hagen¹, Leif Edward Ottesen Kennair¹, Hans M. Nordahl^{1,2}, & Adrian Wells^{3,4}

Norwegian University of Science and Technology, Norway¹, St. Olavs hospital, Div. of Psychiatry, Nidaros DPS, Norway², University of Manchester, UK³, Greater Manchester Mental Health NHS Foundation Trust, UK⁴

This presentation reports the 1-year follow-up results from a randomized controlled trial, which examined the efficacy of metacognitive therapy (MCT) for unipolar depression compared to a waiting list. Thirty-nine patients with major depression were offered MCT and were divided into two conditions; immediate MCT with 10 weekly sessions or a waiting list that had a 10-week delayed MCT start. Two participants dropped out during the waiting condition. Thirty-four patients participated in the follow-up assessment. Based on the intent-to-treat sample, 67% were classified as recovered, 13% improved, and 20% were unchanged at 1-year follow-up. Within group effect sizes were above 2 for depressive symptoms at 1-year and the results suggest that treatment gains are stable at 1-year follow-up. The study sets the stage for future studies, which should evaluate MCT over a longer term and compare it with active treatments using suitably powered randomized controlled trials.

Symposium: Is the Metacognitive Model Relevant to the Area of Personality Research? Chair: Mr. Henrik Nordahl

1) What lies beneath trait-anxiety? Testing the Self-regulatory Executive Function Model of Vulnerability

Henrik Nordahl¹, Odin Hjemdal¹, Roger Hagen¹, Hans M. Nordahl¹, & Adrian Wells^{2,3}

Norwegian University of Science and Technology, Norway¹, University of Manchester, UK², Greater Manchester Mental Health NHS Foundation Trust, UK³

Psychological vulnerability can be operationalized as trait-anxiety, the stable tendency to experience negative affect when exposed to stress. However, concepts such as trait-anxiety have been criticized as they do not yield useful information on the etiological mechanisms of psychopathology. In contrast, the metacognitive (S-REF) model offers a framework in which metacognitive knowledge conceptualized in trait terms is part of a core mechanism underlying trait-anxiety and related constructs. The current study therefore set out to test whether specific metacognitions could be underlying factors in trait-anxiety (the propensity to depression and anxiety). Nine hundred and eighty-two participants completed self-report measures of metacognitions and trait-anxiety at time 1, and 425 individuals completed the same measures eight weeks later. At the cross-sectional level, metacognitions accounted for 83% of the variance in anxiety- and 64% of depression propensity. Furthermore, despite both domains of trait-anxiety showing high stability over time, negative- and positive metacognitive beliefs were significant prospective predictors of both domains of vulnerability. These findings suggest that metacognitive beliefs may be an underlying mechanism of vulnerability attributed to trait-anxiety with the implication that the metacognitive (S-REF) model informs conceptualization of psychological vulnerability, and that metacognitive therapy applications might be employed to enhance psychological resilience.

2) Exploring the Structural Relationships between Metacognitive Beliefs and the Big Five: Can the metacognitive model be relevant to the area of personality research?

Odin Hjemdal¹, Henrik Nordahl¹, & Adrian Wells^{2,3}

Norwegian University of Science and Technology, Norway¹, University of Manchester, UK², Greater Manchester Mental Health NHS Foundation Trust, UK³

Personality theorists argue that higher-order personality traits such as neuroticism have been under-utilized in clinical psychology and that these traits should be considered core factors underlying emotional vulnerability. However, the Self-Regulatory Executive Function (S-REF) model offers a different perspective. In this model, emotional distress is caused by a perseverative negative thinking style, which is directed by underlying beliefs about cognition (i.e. metacognitive beliefs). Thus, metacognitions might be the core underlying mechanism in emotional vulnerability and account for variance in personality factors associated with vulnerability and distress. In the current study, 317 young adults participated in a cross-sectional study where they completed the Metacognitions Questionnaire-30 and the NEO-PI-R. Using structural equation modelling, we found that metacognitions statistically predicted variance in neuroticism, extraversion, openness and conscientiousness, and that the association between metacognitions and neuroticism was particularly strong. Moreover, there were common domains of metacognition as well as some specificity across different personality traits. These findings suggest new directions for future research in the field of personality traits and emotional vulnerability.

3) <u>Metacognitive Therapy of Early Traumatized Patients with Borderline Personality Disorder:</u> <u>A Study of Feasibility and Preliminary Outcome</u> Hans M. Nordahl¹, & Adrian Wells^{2,3}

Norwegian University of Science and Technology, Norway¹, University of Manchester, UK², Greater Manchester Mental Health NHS Foundation Trust, UK³

Metacognitive therapy (MCT) seems to be an effective and brief treatment for anxiety disorders and depression, but still there are no studies of MCT of Borderline personality disorder. A study of the feasibility, tolerability and outcome for patients with Borderline personality disorders with early trauma disorders was conducted. Inpatients were subsequently referred to our study after hospitalisation and treated at the university outpatient clinic at NTNU. Twelve patients were referred between 2007-2014 and offered to participate in this program, and all were subsequently included and treated. As a first step to investigate the potential effects of MCT and to optimize the control of the data we applied a replication design with measures at baseline, pre, post and follow up after 1 year and 2 years. Baseline measures were conducted to control for spontaneous recovery rates by measuring symptoms of anxiety and depression. We measured the change in interpersonal problems and trauma symptoms and self-report on suicidal and self-harming behaviours. MCT is a feasible treatment for patients with early trauma and BPD. Results showed significant reduction of the borderline symptom burden, symptom severity and interpersonal problems from pre to 2-year follow-up. The results indicate a role for a general community management service and an adapted job placement may be associated with better outcome. MCT for BPD is a feasible treatment approach to BPD with high effect sizes upheld over two years. A next step will be to conduct a larger full RCT comparison with a comprehensive treatment of BPD in future research.

Symposium: New Areas in Metacognitive Research: Childhood Adversity, Anger, and Bipolar Disorders

Chair: Dr. Giovanni Maria Ruggiero

1) <u>Metacognitive Beliefs and Childhood Adversities: An Overview of the Literature</u> Giovanni Mansueto^{1,2,3,4}, Gabriele Caselli^{1,3,5}, Giovanni Maria Ruggiero^{1,3}, & Sandra Sassaroli^{1,3}

Studi Cognitivi, Italy¹, Maastricht University, Netherlands², Sigmund Freud University, Italy³, University of Florence, Italy⁴, & London South Bank University, UK⁵

Although the literature suggests that unhelpful metacognitive beliefs might be associated with exposure to early adversities, the evidence is still sparse and inconclusive. This study aimed to conduct an overview of the literature in order to evaluate if exposure to childhood abuse, neglect, and loss events might be associated with the presence of unhelpful metacognitive beliefs. A comprehensive review was conducted on PubMed, Science Direct and Google Scholar from inception to May 2017. Five studies were identified: three on psychiatric patients (psychotic, bipolar, substance addictive), two on the general population. The main findings suggest that: (a) exposure to childhood abuse (emotional, physical, sexual) or childhood neglect (emotional, physical) seems to be associated with unhelpful metacognitive beliefs in adulthood; (b) early adversities were associated with negative beliefs about the uncontrollability and danger of thoughts, than other metacognitive beliefs; (c) metacognitive beliefs seem to mediate the association between childhood adversities and repetitive thinking, as well as, between childhood adversity and negative affect. Metacognitive beliefs might be involved in the association between early adverse experiences and negative emotions.

2) <u>Metacognition of Uncontrollability Makes Anger Rumination Persistent: A Prospective Study</u>

Alessia Offredi¹, Davide Varalli², Giovanni Maria Ruggiero^{1,3}, Sandra Sassaroli^{1,3}, Gabriele Caselli^{1,3,4}

Studi Cognitivi, Italy¹, University of Pavia, Italy², Sigmund Freud University, Italy³, & London South Bank University, UK⁴

Anger rumination is a perseverative thinking style about the causes and consequences of anger-inducing events. The present study aims to identify if anger rumination is a self-maintained process, based on internal procedural features, or if it is perseverative because of specific metacognitive beliefs, which are information individuals hold about their own cognition and about coping strategies that impact on it. A non-clinical sample of seventy-six participants was engaged in a two-week monitoring protocol, which assessed number of anger episodes, anger rumination and metacognitive beliefs. Results show that belief of uncontrollability of thoughts is the only stable predictor of anger rumination during four days following episodes of anger, as opposed to the number of episodes of rage and rumination itself, which have a restricted effect in the short term. Data support the need to focus therapeutic intervention on the conviction of uncontrollability, through a conceptualization and treatment carried out in a metacognitive perspective.

3) <u>Metacognitive Beliefs and Thought Control Strategies in Bipolar Disorder and Health</u> Controls: A Comparative Study

Ettore Favaretto¹, Fulvio Bedani², Alessia Offredi¹, Magdalena Schroffenegger², Sandra Sassaroli^{1,3}, & Gabriele Caselli^{1,3,4}

Studi Cognitivi, Italy¹, Mental Health Center Brixen, Italy², Sigmund Freud University, Italy³, London South Bank University, UK⁴

In the past, studies were performed with the aim to investigate the presence of metacognition disturbances in bipolar patients within an acute phase of illness. Our aim was to investigate the presence of any statistically significant differences in the presence of worry and metabeliefs between a group of euthymic bipolar patients and healthy controls. Our hypothesis was that subjects with a diagnosis of bipolar disorder, within a euthymic phase, express more dysfunctional metabeliefs than the control group and those differences remain unmodified within the many phases of the disorder, as a "constantly altered" condition. 57 patients with Bipolar I, 48 patients with Bipolar II and 49 healthy controls were enrolled. Participants completed a structured diagnostic interview and questionnaires at admission. The data demonstrated that subjects suffering from bipolar disorder showed more dysfunctional metacognitive beliefs than healthy subjects, especially in relation to the need for control over thoughts. The differences between the two bipolar groups lead to the further hypothesis that bipolar type 1 and type 2 have different psychopathological functioning and patterns.

Symposium: Metacognitive Therapy and Addictive Behaviour

Chair: Dr. Gabrielle Caselli

1) <u>Desire thinking as a predictor of relapse of drinking status following treatment for Alcohol Use Disorder:</u> A prospective study

Francesca Martino^{1,2,3}, Gabriele Caselli^{1,2,4}, Elena Fiabane⁵, Federica Felicetti⁶, Marco Menchetti³, Clarice Mezzaluna¹, Sandra Sassaroli¹, Cecilia Trevisani³, Ian P. Albery², Marcantonio M. Spada^{1,2}

Studi Cognitivi, Italy¹, London South Bank University, UK², University of Bologna, Italy³, Sigmund Freud University, Italy⁴, ICS Maugeri Spa⁵, Italy, Casa di Cura Villa San Giuseppe, Italy⁶

Despite the promising efficacy of treatment for Alcohol Use Disorder (AUD), data has shown high relapse rates. Research has indicated that craving may be the strongest predictors of treatment outcome and relapse but there is little consensus on the factors that may influence its activation and escalation. According to Triphasic Formulation of Problem Drinking, desire thinking is a cognitive process who may exacerbate craving in problem drinkers. The aim of present study was to explore, for the first time, the role of desire thinking in predicting craving, binge drinking and relapse in patients receiving treatment for AUD. 135 patients were admitted in two rehabilitation centres and in two outpatient services for addiction and mental health problems. A battery of psychometric instruments were administered at baseline to evaluate AUD, anxiety and depression, drinking behaviour, craving and desire thinking. All measures were also recorded at 1 (end of treatment) and 3 months follow-ups. Results indicated that craving and desire thinking after treatment were both significant predictors of relapse at follow-up over and above baseline AUD severity and frequency of binge drinking. Furthermore, imaginal prefiguration of desire thinking was found to predict craving at 3 months follow-ups and both components (imaginal prefiguration and verbal perseveration)

predicted binge drinking at 3 months over and above baseline AUD severity and frequency of binge drinking. Treatments should aim at reducing desire thinking in people with AUD to enhance clinical improvements in craving and binge drinking and to reduce relapse risk.

2) <u>Metacognitive Therapy for Alcohol Use Disorder: A Systematic Case Series</u> Gabriele Caselli^{1,2,4}, Francesca Martino^{1,2,3}, Marcantonio M. Spada^{1,2}, & Adrian Wells^{5,6}

Studi Cognitivi, Italy¹, London South Bank University, UK², University of Bologna, Italy³, Sigmund Freud University, Italy⁴, University of Manchester, UK⁵, Greater Manchester Mental Health Foundation Trust, UK⁶

Alcohol Use Disorder (AUD) is a debilitating condition with serious adverse effects on health and psycho-social functioning. The most effective psychological treatments for AUD show moderate efficacy and return to dysregulated alcohol use after treatment is still common. The aim of the present study was to evaluate Metacognitive Therapy (MCT) as applied to Alcohol Use Disorder (AUD). Five patients were treated using a non-concurrent multiple baseline design with follow-up at 3- and 6-months time points. Each patient received twelve one-hour sessions of MCT. Following MCT all patients demonstrated large and clinically meaningful reductions in weekly alcohol use and number of binge drinking episodes that were upheld at follow-up in almost all cases. Metacognitive beliefs, as secondary outcome, also changed substantially. The findings from this study offer preliminary evidence of the effectiveness of MCT for AUD and support the need for a more definitive trial of MCT in addictive behaviours.

3) Anxiety-depression comorbidity in pathological gambling: the role of metacognitive beliefs and the psychological flexibility.

Giovanni Mansueto^{1,2,3}, Gabriele Caselli^{1,3,4}, Giovanni Maria Ruggiero^{1,3}, & Sandra Sassaroli^{1,3}

Studi Cognitivi, Italy¹, Maastricht University Medical Centre, Netherlands², Sigmund Freud University, Italy³, London South Bank University, UK⁴

Despite the comorbid anxiety and mood disorders in pathological gambling is associated with severe outcome, which factors might explain the relationship between anxiety, depression and gambling is unclear. Metacognition and the psychological flexibility were associated with gambling, mood and anxiety disorders. This study aimed to evaluate whether metacognitive beliefs and low psychological flexibility might be associated with anxiety and mood disorders comorbidity in gambling patients. 69 gambling patients were recruited the NIHS. SOGS, SCL-90, MCQ-30, AAQ-II were administered. Correlation and multiple hierarchical linear regression analyses were run. Negative metacognitive beliefs and low psychological flexibility were associated with anxiety; negative metacognitive beliefs were associated with depression; none other kind of metacognitive beliefs was associated with anxiety or depression. Negative metacognitive beliefs were correlated with low psychological flexibility. Psychological flexibility was not associated with gambling. Negative metacognitive beliefs and low psychological flexibility seem to be associated with anxiety and depression comorbidity in gambling patients. Assessment and treatment of these vulnerability factor, especially negative metacognitive beliefs, might be considered for the management of anxiety and depression comorbidity in gambling patients.

Symposium: Metacognitive Therapy for Psychosis

Chair: Dr. Sophie Parker

1) <u>Investigating the use of Attention Training Technique for people with Psychosis</u> Sophie Parker^{1,2}, Sophie Faulkner^{1,2}, Jonothan Orson², & Adrian Wells^{1,2}

Greater Manchester Mental Health Foundation Trust¹, University of Manchester, UK²

Attention training (ATT) is beneficial for a number of difficulties even as a stand-alone strategy. Studies suggest that ATT is promising in the treatment of hallucinations in psychosis along with other psychotic symptoms. Whilst pilot work shows positive results, this research seeks to answer key questions about the acceptability and feasibility of ATT and the training and supervision needs of those providing it. We plan to recruit 76 participants with psychosis randomised to ATT plus Treatment As Usual (TAU) vs. TAU alone. ATT is delivered by carecoordinators over 12 sessions. Participants are assessed at baseline, 12 weeks, 6 months and 12 months. Results from the pilot work will be presented alongside an update on the current trial. The pilot work demonstrated sufficient rates of recruitment and high retention rates in both conditions. Significant differences were found between the groups in favour of ATT. Significant differences are suggestive that ATT is an effective brief intervention in the treatment of psychosis. However, further work is required. Issues from the current study will be discussed including treatment requirements.

2) <u>Metacognitive Therapy for Individuals at High Risk of Developing Psychosis: A Pilot Trial</u> Sophie Parker^{1,2}, Lee Mulligan^{1,2}, Philip Milner^{1,2}, Samantha Bowe^{1,2} & Jasper Palmier-Claus^{1,2}

Greater Manchester Mental Health Foundation Trust¹, University of Manchester, UK²

Metacognitive processes are important in the development and maintenance of psychosis and are prevalent in those meeting At Risk Mental State (ARMS) for psychosis criteria. Evidence suggests that metacognitive therapy (MCT) provides a useful alternative to CBT. This study evaluates the feasibility of MCT for people meeting ARMS criteria. Ten participants meeting ARMS criteria received up to 12 sessions of MCT in an exploratory open trial. Outcomes included subthreshold psychosis symptoms (CAARMS), at baseline, end-of-therapy (3 months) and 6 months post therapy, as well as dimensions of hallucinations and delusions, emotional dysfunction, functioning and metacognitive beliefs and processes. Uptake was high and follow-up rates were 80% and 60% at end of treatment and follow-up. Significant beneficial effects were observed on several outcomes at end of treatment some retained to follow-up. Cohen's d effects sizes were medium to large on all significant results at end-of-treatment and follow-up. This study offers preliminary evidence that MCT is both feasible and acceptable for those meeting ARMS criteria. A larger randomised controlled trial is required to address limitations.

3) <u>Metacognitive Beliefs in Psychosis: A 15-Month Follow Up Study</u>
Tiril Ostefjells¹, Ingrid Melle¹, Kristin Lie Romm¹, Nasrettin Sonmez¹, & Jan Ivar Rossberg¹

Oslo University Hospital and Institute of Clinical Medicine, Norway¹

Metacognitive beliefs are elevated in psychotic disorders and linked to depression in cross-sectional studies, but no follow-up studies exist. We explored changes in metacognitive beliefs reported by individuals with a psychotic disorder and depressive symptoms across 15 months. Participants were part of an RCT receiving 6 months of TAU or TAU plus CBT. MCQ-30 ratings at baseline, 6 and 15 months were available for 43 participants. Correlations, group differences over time and predictors of metacognitive beliefs at 15 months were analysed with a focus on beliefs about uncontrollability and danger (UD). All metacognitive beliefs declined from baseline to 6 months, with a significantly stronger decline in UD for the TAU only group. UD did not correlate with depression at baseline but showed a medium positive correlation at 6 months and a strong positive correlation at 9 months. UD scores at 15 months were predicted by UD- baseline scores, but not baseline depression or treatment group. Depression and UD may be linked over time in psychotic disorders.

Symposium: Metacognitive Theory and Therapy in Obsessive Compulsive and Related Disorders

Chair: Dr. Samuel G. Myers

1) <u>Low dysfunctional beliefs subgroup in obsessive-compulsive disorder: Relationships with metacognition and treatment outcome</u>
Torun Grotte^{1,2}, Stian Solem¹, Patrick A. Vogel¹, Silje E.H. Holm³, & Samuel G. Myers⁴

Norwegian University of Science and Technology, Norway¹, St. Olavs University Hospital, Norway², Haukeland University Hospital, Norway³, Bar Ilan University, Israel⁴

Previous research has identified two subgroups of obsessive-compulsive disorder (OCD) characterized by high (OCD-H) and low (OCD-L) scores on cognitive dysfunctional beliefs. This poses a challenge to cognitive models as to the etiology of obsessive-compulsive symptomatology in the OCD-L group. This study aimed to: 1) explore the role of metacognitions in the OCD-L group, and 2) investigate any group differences in treatment response following therapy, mainly consisting of Exposure and Response Prevention (ERP). Patients with OCD (N=279) completed measures prior to treatment, and a subset of 148 patients was used to evaluate treatment response at discharge and six-month follow-up. Cluster analysis identified two belief-based subgroups (OCD-H and OCD-L). Most general and OCD-specific metacognitive beliefs measured were significantly positively correlated with obsessive-compulsive symptoms in the OCD-L group. Furthermore, regression results were supportive of the hypothesised role of several OCD-specific metacognitions. The groups had similar recovery and relapse rates following treatment. Metacognitions seem important also in OCD patients with low cognitive beliefs. OCD groups with high and low cognitive beliefs may have similar outcomes following ERP.

2) Metacognitive Therapy for Scrupulosity: a pilot study Samuel G. Myers¹

Bar Ilan University, Israel¹

Scrupulosity refers to OCD with a religious or moral content. It can present particular treatment challenges and in some behavioural and pharmacological treatment studies has been linked to poorer outcome. The aim was to examine Metacognitive Therapy (MCT) for OCD when applied to Scrupulosity in a pilot study. Four consecutively referred Orthodox Jews with Scrupulosity were treated with MCT. Single case methodology was used and patients were assessed pre and post-treatment on o-c symptoms and metacognitive beliefs. All four patients had clinically significant changes in symptoms and metacognitive beliefs post-treatment. The metacognitive model of OCD provides novel perspectives on issues that arise with Scrupulosity such as patient doubts concerning whether their obsessive-compulsive symptoms are OCD or valid religious practice and how patients can consult with clergy without this becoming a compulsive behaviour. Although follow-up data is needed, initial results suggest a controlled trial of MCT for Scrupulosity is warranted.

3) <u>Metacognitive Therapy for Body Dysmorphic Disorder</u> Svein Haseth¹, Karina S. Hoyen¹, Erlend Hunstad¹, Ismail C. Guzey¹, & Stian Solem²

St. Olav's University Hospital, Norway¹, Norwegian University of Science and Technology, Norway²

Previous research has suggested that metacognitive beliefs could be important in explaining symptoms of body dysmorphic disorder (BDD). However, the effect of metacognitive therapy (MCT) for BDD is unclear. The current study set out to test the effect of MCT for patients with BDD. A total of nine consecutively recruited patients with BDD were treated with MCT. Patients were assessed at pre- and post-treatment, and 3-month follow-up. Measures included the BDD-YBOCS, the BDI, the PSWQ, and the MCQ-30. Treatment consisted of MCT-elements from the OCD-, GAD-, and social anxiety disorder models. Five patients were treated for 3-weeks as inpatients, while three were outpatients. Symptoms of BDD were significantly reduced following treatment (effect size of 6.05) and seven patients (88%) achieved clinically significant change. Furthermore, there were significant improvements in worry, depression, and positive- and negative metacognitive beliefs. Improvements were maintained at follow-up. The results suggest that MCT for BDD could be an effective treatment. Future studies should explore MCT for BDD in controlled trials.

Symposium: Neurobiology of Metacognitive Therapy

Chair: Prof. Kai G. Kahl

1) <u>More Than Words: Impacts of MCT on the Deep Brain</u>
Lotta Winter¹, Mesbah Alam¹, Hans E. Heissler¹, Assel Saryyeva¹, Denny Milakara², Xingxing Jin³, Ivo Heitland¹, Kerstin Schwabe¹, Joachim K. Krauss¹, & Kai G. Kahl¹

Hannover Medical School, Germany¹, Charite University Medicine Berlin, Germany², Zhongda Hospital, Southeast University, Nanjing, China³

Modifying effects of psychotherapy on neuronal activity are largely unknown. We present data of an innovative experimental paradigm along the example of a patient with treatment resistant obsessive-compulsive disorder who underwent implantation of electrodes for deep brain stimulation. The aim was to examine the short-term effects of metacognitive therapy on neuronal local field potentials (LFP). The period between implantation of the electrodes and the pacemaker was used for performing the paradigm which consisted of a) baseline recording of LFPs from the bed nucleus of the stria terminalis, b) 5 sessions of MCT over 3 days, c) post recording. In addition, the OCD-S was used to evaluate OCD symptoms. OCD symptoms decreased after MCT. These alterations were accompanied by a decrease of the relative power of theta band activity, while alpha, beta, and gamma band activity were significantly increased after MCT. Further, analysis of BNST/IC LFP and frontal cortex EEG coherence showed that MCT decreased theta frequency band synchronization. We demonstrate direct effects of MCT on neuronal oscillatory behavior, which may give possible cues for the neurobiological changes associated with psychotherapy.

2) <u>Shifting instead of drifting - improving attentional performance by means of the attention training technique and its neurobiological correlates</u>

Ivo Heitland¹, Niklas Jahn¹, Vincent Barth¹, Tillmann Krüger¹, Kai G. Kahl¹, Lotta Winter¹, & Christopher Sinke¹

Hannover Medical School, Germany¹

The Attention Training Technique (ATT) as part of Metacognitive Therapy (MCT) has shown to be a promising treatment element for several psychiatric disorders such as depression and anxiety. While there is converging evidence for its clinical effects, it remains unclear as of yet by which neurobiological and neurocognitive-attentional changes the ATT exerts its effects. We aimed to investigate the neurobiological and neurocognitive effects of the ATT. 50 healthy human subjects completed an attention-centered neurocognitive test battery partly inside and partly outside a fMRI scanner. Then, 25 subjects used ATT for a week while 25 were provided with sham ATT. 1 week later, both groups returned to the lab and completed the test battery from day 1. Neurocognitive attentional performance was better after one-week ATT when compared to sham ATT. fmRI data are currently processed, results will be presented at the meeting. These data shine light on the underlying neurocognitive and neurobiological mechanisms by which ATT exerts its clinical effects. Furthermore, ATT seems to improve attentional flexibility even in healthy subjects.

3) Neural Correlates of the CAS - A Functional Connectivity Study of Induced Rumination Joachim Kowalski¹, Marek Wypych², Artur Marchewka², & Malgorzata Dragan¹

University of Warsaw, Poland¹, Nencki Institute of Experimental Biology, Polish Academy of Sciences, Poland²

The cognitive-attentional syndrome (CAS), consisting of ruminations and worrying, is a main factor underlying depression and anxiety in metacognitive approach. We aimed to explore the neural differences in negative thinking in people with high (HCAS) and low (LCAS) levels of CAS. LCAS and HCAS groups underwent negative and abstract thoughts induction procedure during an fMRI scan. Using generalized psychophysiological interaction method we analyzed group x condition interactions in functional connectivity (FC). HCAS group revealed disrupted patterns of connectivity within and between various parts of Default Mode, Salience and Executive Networks. In particular HCAS showed increased functional connectivity within the DMN both during rumination: higher FC between precunei, medial parts of prefrontal cortices and parts of occipital cortex, and during abstract condition: increased FC between medial parts of the frontal cortex and precunei, as well as within both frontal and parietal parts of the DMN, and within the precunei. These results suggest difficulty in down-regulating the DMN activity during various types of thinking and diminished cognitive control in subjects with high levels of CAS. This may indicate heightened tendency to self-referential thinking and focusing attention on self in HCAS group.

Symposium: Metacognitive Processes in Eating Disorders

Chair: Giovanni Maria Ruggiero

1) Repetitive Thinking and Eating Disorders: a meta-analysis of the role of Worry and Rumination

Sara Palmieri^{1,2,3}, Giovanni Mansueto^{1,2,4,5}, Giovanni Maria Ruggiero^{2,6}, Simona Scaini², Gabriele Caselli^{1,2,3}, Walter Sapuppo^{1,2,3}, Angelo Compare⁷, & Sandra Sassaroli^{1,2}

Studi Cognitivi, Italy¹, Sigmund Freud University, Italy², London South Bank University, UK³, Maastricht University Medical Center, Netherlands⁴, University of Florence, Italy⁵, Psicoterapia Cognitiva e Ricerca, Italy⁶, University of Bergamo, Italy⁷

Although the literature suggested that repetitive thinking, in terms of worry and rumination, is a cognitive process present across diverse disorders, the role of worry and rumination in eating disorders is still controversial. This study aims to run a meta-analysis of published papers to clarify the relationship between repetitive thinking (i.e. worry and rumination) and eating disorders. In accordance with PRISMA criteria, a literature search was conducted on PubMed and Science Direct from inception to April 2018. Search terms: 'eating disorder / anorexia / bulimia / binge eating disorder' AND 'worry / rumination / brooding / repetitive thinking'. A manual search of reference lists was also run. Repetitive thinking is associated with eating symptoms in both patients and a general population sample. Repetitive thinking is associated with symptoms of anorexia, bulimia, and binge eating disorder. Both worry and rumination are associated with eating symptoms. Repetitive thinking is associated with eating symptoms, suggesting that the assessment of worry and rumination should not be overlooked in the analysis and formulation of eating disorder subjects.

2) <u>The Body of Cognitive and Metacognitive Variables in Eating Disorders: Need of Control, Negative Beliefs about Worry Uncontrollability and Danger, Perfectionism, Self-esteem and Worry</u>

Walter Sapuppo^{1,3}, Giovanni Marira Ruggiero^{1,2}, Gabriele Caselli^{1,3,4}, & Sandra Sassaroli^{1,3}

Sigmund Freud University, Italy¹, Psicoterapia Cognitiva e Ricerca, Italy², Studi Cognitivi, Italy³, London South Bank University, UK⁴

Many studies have described perfectionism and low self-esteem as traits associated with eating disorders (ED). More recently, research has shown the role played by worry, rumination, control and metacognitive beliefs. This paper investigates the role played by cognitive and metacognitive variables in the psychopathological mechanism of eating disorders, assuming that not only perfectionism and low self-esteem but also metacognitive beliefs and processes can discriminate between controls and EDs. The SCID-I for DSM, the MPS, the RSES, the ACQ, PSWQ and MQ were administered to the samples. Moderation model analysis was implemented. Results suggested that metacognitive factors: negative beliefs about worry, uncontrollability and danger, need for control, and worry should be added to the body of cognitive factors underlying ED. It is possible that an individual with ED assumes that metacognitive processes like worry and rumination are a further proof of his or her lack of value, capacity to control, and self-control. Such appraisals may reinforce the painful sense of low self-esteem so typical in ED and, in turn, the perfectionistic striving for excellence

3) <u>Metacognitive and Cognitive Predictors of Eating Disorder Symptoms in 16 - 19 year old School Girls: A Prospective 12-month Cohort Study</u>
Gillian Todd¹, Lora Capobianco², Myra Cooper³, & Adrian Wells^{2,4}

Cambridge University, UK¹, Greater Manchester Mental Health NHS Foundation Trust, UK², University of Oxford, UK³, University of Manchester, UK⁴

In the S-REF model (Wells & Matthews, 1994; 1996) dysfunctional metacognitions are given causal status in the development of psychological disorder. Whilst in cognitive schema theory (Beck, 1976) a range of beliefs about the self and world are considered central. Little is known about the relationship between metacognitions and cognitive schemas. We addressed the question; are metacognitive beliefs and eating disorder beliefs related and if so is there any evidence of temporal precedence in their relationship? We examined these questions in a sample of schoolgirls, a population prone to experience weight and shape concerns. A cohort of 16-19 year old females in full-time education (n=162) were tested twice over a 12month period. Metacognitions were assessed with the metacognitions questionnaire 30 (MCQ-30: Wells & cartwright-Hatton, 2004) and cognitive schemas were assessed with the Eating Disorder belief Questionnaire (EDBQ: Cooper et al, 1997). The results of cross-lagged panel analysis showed that while metacognitive beliefs did not predict eating disorder beliefs at T2 they did predict eating disorder beliefs at T3, while eating disorder beliefs did not significantly predict metacognitive beliefs. The results are consistent with a causal effect of metacognitions on schemas but not of schemas on metacognitions. The implications for treatment are considered.

Open Papers

Session 1 Theme: Metacognitive Therapy and Interpersonal Problems

1) Metacognitive therapy for treatment resistant and high risk somatic delusions Louise Horne¹

Mersey Care NHS Trust, UK1

Patients who are detained in Ashworth High Secure Hospital present with a range of complex psychological disorders and risk. Traditional psychological interventions can sometimes be effective, but often offer limited utility. This paper will describe a single case study using the metacognitive model for GAD (Wells, 1995, 1997) to reduce treatment resistant and high risk somatic delusions in an individual with a history of serious assaults. It was predicted that: (1) Reductions in worry associated with the content of somatic delusions would lead to significant reductions in psychological distress; and (2) Reductions in worry would be associated with significant reductions in risk. Metacognitive therapy was delivered over 10 treatment sessions, and followed up for 12 months. Pre and post measures of anxiety, depression, worry, metacognition and risk were gathered. The patient reported significant reductions in anxiety, depression and worry relating to his somatic delusions at post-treatment and follow up. The results appear to show that metacognitive therapy may be a promising intervention for high risk somatic delusions in forensic populations. MCT has subsequently been implemented with individual patients, however further studies with larger samples and control methodologies are needed.

2) MCT for Bipolar Disorder: A case series
Pia Callesen¹, Marianne Lunde Pedersen¹, Carsten Juul^{2,3}, & Adrian Wells^{3,4}

CEKTOS, Denmark¹, Metafied, Denmark², University of Manchester³, UK, & Greater Manchester Mental Health Foundation Trust, UK⁴

Cognitive-behavior therapy is the most effective psychological treatment for Bipolar Disorder. However, this approach often produces variable results with the majority of treated individuals remaining symptomatic. This study evaluated the application of the generic model in Metacognitive Therapy to Bipolar disorder. Treatment efficacy was assessed using single case methodology in 3 consecutively referred individuals. At post-treatment, all participants made clinically significant changes on a range of standardized outcome measures. Follow-up will be assessed in January 2019. The preliminary results suggest that Metacognitive therapy might be an effective and time efficient treatment for Bipolar Disorder. Is Metacognitive Therapy a feasible and efficacious treatment for Bipolar Disorder. Multiple baseline A-B design with follow-up at 6 months. Three patients were diagnosed using SCID delivered by an experienced MCT-I registered psychologist (level 1+2). Patients were assigned to up to twelve sessions of MCT. Significant improvements on depressive symptoms, rumination and metacognitive beliefs. Follow-up on all 3 participants will be assessed in January 2019. Results are promising. MCT appears to be an efficacious treatment for bipolar disorder. This multiple baseline single case study shows promising results for the efficacy of metacognitive therapy for Bipolar Disorder. Larger randomized trials should now be carried out to further evaluate if these results can be replicated in RCTs.

3) <u>Metacognitive beliefs and interpersonal problems: Is there a role for metacognitions after controlling emotional distress levels, attachment styles and the big five personality traits?</u>
Odin Hjemdal¹, Henrik Nordahl¹, Hans Nordahl¹, & Adrian Wells^{2,3}

Norwegian University of Science and Technology, Norway¹, University of Manchester, UK², & Greater Manchester Mental Health NHS Foundation Trust. UK³

Interpersonal problems are common features of psychological disorder and are associated with poorer quality of life and functioning beyond emotional distress levels. Psychological interventions should aim to alleviate interpersonal problems, but the factors contributing to them are uncertain. Emotional distress levels, personality traits and attachment styles have been hypothesised as important. The metacognitive model places emphasis on perseverative negative thinking styles and underlying metacognitive beliefs as key mechanisms in emotional problems. However, no studies have yet investigated the relationship between metacognitions and interpersonal problems. Thus, we set out to explore a potential role for metacognitions in interpersonal problems after accounting for distress levels, attachment styles and personality traits. In a cross-sectional design, 291 participants completed a battery of self-report questionnaires. The results indicate that all MCQ-30 domains except the need to control thoughts explained unique variance in interpersonal problems over and above the controlled variables. These findings indicate that metacognitions are associated with interpersonal problems and support the idea that these should be explored as sources of change in interpersonal problems in future studies.

Session 2 Theme: Metacognitive Therapy for Anxiety

1) <u>Moderators and predictors of outcome in metacognitive and cognitive behavioural therapy for co-morbid anxiety disorders</u>
Sverre Urnes Johnson¹ & Asle Hoffart²

Modum Bad Psychiatric Center, Norway¹, University of Oslo, Norway²

This study aimed to investigate whether two theoretically derived moderators of treatment, degree of worry and avoidance at pre-treatment, moderated anxiety from pre-treatment to post-treatment in a randomized controlled trial comparing metacognitive therapy and cognitive behavioural therapy. Personality problems, degree of co-morbidity, and demographic characteristics (work status and education) were also investigated. Seventy-four patients with a primary diagnosis of post- traumatic stress disorder, social phobia, or panic disorder with and without agoraphobia were analysed using multilevel modelling. There were no significant predictors of treatment outcome, indicating that the slope was not dependent on worry, avoidance, personality problems, degree of co-morbidity, and demographic characteristics. Furthermore, no interaction with treatment condition was found. Due to the sample size, the results of the moderator analysis should be interpreted with caution and replicated. Worry, avoidance, personality problems, degree of co-morbidity, and demographic variables did not moderate the effect of metacognitive therapy and cognitive behavioural therapy or predict treatment outcome for co-morbid anxiety disorders. Clinical implications are discussed.

2) Metacognitive Therapy in the Treatment of Health Anxiety Robin Bailey¹ & Adrian Wells^{2,3}

Liverpool John Moores University, UK¹, University of Manchester, UK², & Greater Manchester Mental Health NHS Foundation Trust, UK³

In recent years metacognition has been shown to be strongly associated with both the maintenance and development of health anxiety. Metacognitive therapy (MCT) has demonstrated some effectiveness in the treatment of health anxiety however these studies are small and lack a control. The present study's aim was to compare the effectiveness of metacognitive therapy to a waitlist control condition in the treatment of health anxiety. Twenty individuals with health anxiety were randomly assigned to a waitlist condition or a maximum of twelve sessions of MCT. Primary measures of health anxiety and secondary measures of depression, anxiety and metacognitive beliefs were completed at pre and post treatment and six-month follow up. The MCT group showed significantly greater improvements in health anxiety and related symptoms than the control group immediately after treatment, with high effect sizes on all measures. Eighty per cent of the MCT group were recovered at post treatment and at six-month follow up. Evidence suggests that MCT is associated with large and clinically meaningful improvements in health anxiety and more general negative affect measures. Limitations and future directions will be discussed.

3) <u>Group Metacognitive Therapy for Generalized Anxiety Disorder: A Pilot Feasibility Trial</u> Svein Haseth¹, Stian Solem,^{1,2} Grethe Baarsden Soro¹, Eirin Bjornstad², Torun Grotte^{1,2}, & Peter Fisher³

St. Olavs Hospital, Norway¹, Norwegian University of Science and Technology, Norway², University of Liverpool, United Kingdom³

Individual metacognitive therapy (MCT) for generalized anxiety disorder (GAD) is well established, but only one study has investigated the effectiveness of Group MCT (g-MCT) for GAD. The aim of the current study was to evaluate the feasibility and effectiveness of g-MCT for GAD within a community mental health setting. The study used an open trial design, and 23 consecutively referred adults with GAD completed 10 sessions (90 min) of g-MCT, delivered by two therapists trained in MCT. Diagnoses were assessed by trained raters using the Anxiety Disorder Interview Schedule-IV. All patients but one had previous psychosocial treatment, and 17 (73.9%) had at least one comorbid axis-I disorder. Self-reported symptoms were assessed at pre- and post-treatment as well as 3-month follow-up. Feasibility was assessed using rates of patients who declined group treatment in favor of individual treatment, patients not able to attend due to pre-scheduled dates for sessions, and drop-out rate. g-MCT was associated with significant reductions in worry, anxiety, depression, metacognitive beliefs, and maladaptive coping. According to the standardized Jacobson criteria for recovery, 65.3% were recovered at post-treatment, whereas 30.4% were improved and 4.3% showed no change. At 3-month follow-up, the recovery rate increased to 78.3%, g-MCT for GAD is an acceptable treatment which may offer a cost- effective alternative approach to individual MCT. Recovery rates and effect sizes suggested that g-MCT could be just as efficient as individual MCT and cognitive behavioral therapy.

Session 3 Theme: Applications and Innovations in Metacognitive Therapy

1) <u>The Metacognitions about Gambling Questionnaire</u> Gabriele Caselli^{1,2,3}, Bruce Fernie⁴, Falviano Canfora⁵, Cristina Mascolo¹, Andrea Ferrari¹, Gilda Donato⁶, Antonella Marcotriggiani⁶, Lucia Giustina⁶, Maria Antonioni⁶, Andrea Bertani¹, Antonella Altieri¹, Eliana Pellegrini¹, & Marcantonio Spada³

Studi Cognitivi, Italy¹, Sigmund Freud University, Italy², London South Bank University, UK³, Kings College London, UK⁴, Ambulatorio dipendenze patologiche, Italy⁵, Servizio Tossicodipendenza, Italy⁶

Recent research has suggested that metacognitions may play a role across the spectrum of addictive behaviours. The goal of our studies was to develop the first self-report scale of metacognitions about gambling. We conducted three studies with one community (n = 165) and two clinical (n = 110; n = 87) samples to test the structure and psychometric properties of the Metacognitions about Gambling Questionnaire (MGQ) and examined its capacity to prospectively predict severity of gambling. Findings supported a two-factor solution consisting of positive and negative metacognitions about gambling. Internal consistency, predictive and divergent validity were acceptable. All the factors of the MGQ correlated positively with gambling severity. Regression analyses showed that negative metacognitions about gambling were significantly associated to gambling severity over and above negative affect and gambling-specific cognitive distortions. Finally, only gambling severity and negative metacognitions about gambling were significant prospective predictors of gambling severity as measured three months later. The MGQ was shown to possess good psychometric properties, as well as predictive and divergent validity within the populations that were tested.

2) <u>Secularising the Therapeutic Relationship in MCT. Dodo's Verdict or Cuckoo's Strategy?</u> Giovanni Maria Ruggiero^{1,2}, Gabriele Caselli^{1,3,4}, Sandra Sassaroli^{1,3}

Sigmund Freud University, Italy¹, Psicoterapia Cognitiva e Ricerca, Italy², Studi Cognitivi, Italy³, London South Bank University, UK⁴

From the Dodo's verdict onwards there is an intense debate on the role played by relational factors in psychotherapy. Is the therapeutic relationship the most empirically founded process of change or a preparatory component? Critical review of the scientific literature focused on change processes -common and specifically relational factors and process-based factors- as empirical evidence in favour or not of the mentioned hypotheses. Evidence supporting common factors can be interpreted in favour of the centrality of relational factors, while evidence supporting the specific efficacy of some process-based interventions (including MCT interventions) combined with experimental research can be interpreted in favour of the processual hypothesis. While the final verdict is still pending, we can describe the pros and cons of the two scenarios: a relational paradigm at risk of favouring a non-specific practice featuring the ubiquitous relational factor (cuckoo's strategy) with little hope of future rising efficacy but closer to the psychotherapeutic craft and a process paradigm, more promising in terms of rising increased efficacy, but requiring a highly committed professionalism not easily disseminable.

3) MCT Homework and Research via Mobile App
Bradford Richards¹, Jeanne Czajka¹, Todd Sewell¹, Nicholas Wignall¹, & Duyen Vo¹

Cognitive Behavioural Institute of Albuquerque, USA1

MCT homework assignments vary from session to session over the course of treatment, and no single mobile app has encompassed all of them. We have developed a free App for both Android and iOS that can deliver all MCT homework assignments and collect data for large-scale MCT research. Can an App for MCT homework be constructed to be infinitely customizable so as to deliver prompts for individualized MCT homework assignments, collect data from the homework, transmit the data via email, and receive new assignments via email? After 98 version iterations, iPromptU has now, for the first time, enabled import/export of homework and research protocols through emailed settings files. This enhanced functionality now enables the app to function on users' own devices for individual MCT homework, large-scale MCT research, and EMA studies. Drs. Richards, Sewell, Wignall, and Vo will instruct attendees in the installation, setup, and use of the App for delivery of MCT. Each of the 4 presenters will take 5 minutes to demonstrate the use of the app in MCT for diverse and contrasting types of patients

Session 4 Theme: Metacognitive Therapy for Depression

1) <u>Do process matter? Examining therapy process issues in metacognitive therapy and cognitive behaviour therapy for depression</u>
Jenny Jordan¹, Josie Ganly¹, & Janet Carter²

University of Otago, New Zealnd, University of Canterbury, New Zealand

Metacognitive therapy (MCT) has demonstrated superiority over cognitive behaviour therapy (CBT) although our previous depression trial (PMID: 2481087) found MCT to be as effective as CBT. Examination of therapy process may assist understanding client response to different psychotherapies. We aimed to evaluate if MCT differs from CBT, more specifically does MCT differ on therapy-process related variables and do these predict therapy outcome or dropout. Audio-recorded sessions from 46/48 depressed participants receiving MCT or CBT were "blind" rated using the Vanderbilt Therapy Alliance Scale, the Ways of Responding scale (adapted to include an MCT subscale). Client-rated credibility and post-treatment satisfaction ratings were included. Outcome was clinician-rated Quick Inventory of Depression Scale (QIDS-C). Dropout was completing fewer than eight sessions. Credibility and satisfaction ratings were high in both therapies. On the WORS, client identification with therapy was distinguishable from their speech however this did not predict outcome or dropout. Therapist alliance was higher for MCT and patient alliance was higher in CBT. Therapies were distinguishable however client identification did not predict outcome or dropout. Future research will establish whether these process-related factors predict outcome over follow-up.

2) <u>Metacognitive Therapy for Depression Reduces Interpersonal Problems: Results From a Randomized Controlled Trial</u>

Eivind Strand¹, Roger Hagen¹, Odin Hjemdal¹, Leif E.O. Kennair¹, & Stian Solem¹ Norwegian University of Science and Technology, Norway¹

Interpersonal problems are significantly elevated in patients with depression. Metacognitive therapy for depression does not address interpersonal problems but is associated with large reduction in depressive symptoms. The main aim of the current study was to explore whether metacognitive therapy leads to improvements in interpersonal problems in patients with depression. The study was a waitlist-controlled trial and assessments took place at pre- and post-treatment as well as 6-month follow-up. Metacognitive therapy was associated with large reductions in interpersonal problems. Level of pre-treatment interpersonal problems were not related to poorer treatment response. Metacognitive therapy, which does not directly target interpersonal problems, worked well for patients with depression and interpersonal problems. Future research should compare metacognitive therapy with other evidence-based treatments for patients with depression and interpersonal problems in depression will be discussed in terms of the metacognitive model.

3) Role of Rumination in the Relationship between Metacognition and Shyness Sara Palmieri^{1,2,3}, Giovanni Mansueto^{1,2,4,5}, Simona Scaini², Francesca Fiore¹, Sandra Sassaroli^{1,2}, Rosita Borlimi², & Giovanni Maria Ruggiero^{2,6}

Studi Cognitivi, Italy¹, Sigmund Freud University, Italy², London South Bank University, UK³, Maastricht University Medical Center, Netherlands⁴, University of Florence, Italy⁵, Psicoterapia Cognitiva e Ricerca, Italy⁶

Metacognitive beliefs and rumination are correlated with social anxiety, which is located on a continuum of shyness. It might be assumed that shyness and social anxiety share metacognitive beliefs and ruminative processes. The association between metacognitive beliefs, rumination and shyness has not yet been explored in a non-clinical sample of adults. The main aim of the study was to explore the association between metacognitive beliefs, rumination and shyness in a non-clinical sample of adults. One hundred and three healthy subjects from the general population were enrolled. Shyness, rumination, metacognition and anxiety levels were measured. Correlation analyses, mediation models and 95% biascorrected and accelerated (BCaCI) bootstrapped analyses were performed. Shyness, rumination and metacognition were significantly correlated. The relationship between metacognition and shyness was mediated by rumination. Findings suggest an association between metacognition and shyness. Rumination mediated the relationship between metacognition and shyness, suggesting that rumination could be a cognitive strategy for shy people. The findings could be relevant in helping individuals understand the nature of their shyness by addressing its cognitive components.

Posters

1) <u>The Cognitive Attentional Syndrome in Cardiac Patients Experiencing Anxiety and</u> Depression

Cintia Faija¹, David Reeves¹, Calvin Heal¹, Lora Capobianco², Rebecca Anderson², & Adrian Wells^{1,2}

University of Manchester, UK¹, Greater Manchester Mental Health Foundation Trust, UK²

The Self-Regulatory Executive Function model of emotional disorders proposes that a particular style of thinking called the cognitive attentional syndrome (CAS) maintains emotional distress. Evaluation of the CAS in medical samples who are psychologically distressed is crucial to develop effective clinical interventions. We aimed to explore the psychometric properties of a short-revised scale assessing the CAS in cardiac rehabilitation patients experiencing mild to severe symptoms of anxiety and/or depression. A clinical sample of 440 patients was recruited from cardiac rehabilitation services in the UK. The latent structure of the Cognitive Attentional Syndrome 1 Revised Scale (CAS-1R) was assessed using confirmatory factor analyses. Hierarchical regression was used to explore the validity of the measure in explaining psychological distress. Confirmatory factor analysis demonstrated good fit for a three-factor solution. Results showed that the CAS-1R accounted for additional variance in explaining psychological distress. The CAS-1R appears to be reliable and valid in assessing the CAS among cardiac patients with psychological distress, and supports its multifactorial assessment in this population for future studies.

2) MCT- Based Preventative Metacognitive Training: Effects on Stress and Health of First Year Medical Students

Oliver Korn, Thomas Kötter¹, Katrin Obst¹, Martin Hauptmeier, Ulrich Schweiger², Anke Frieling³, & Frank Steinhoff³

University of Lubeck, Germany¹, Universitätsklinikum Schleswig-Holstein, Germany², addisca gGmbh, Germany³

Research shows that mental and physical health of medical students deteriorates during their education. Academic examinations seem to further provoke stress and anxiety. This development is carefully monitored at the University of Lübeck and various interventions to support the students and alleviate their stress are being tested. The study aimed to evaluate if MCT-based preventive metacognitive training can reduce the individual stress experience of medical students. In addition, we evaluated if the training could improve the general health of medical students. A randomized controlled trial with wait list control group was conducted. Five questionnaires were administered (PMSS; BSI-18, MCQ 30, DMQ, control questions). Results show a positive effect on stress levels of the medical students in general (d=0.62) and point to stress-reducing effects in periods of increased stress. No effects were identified regarding the general health parameters. No robust conclusions can be drawn due to the low statistical power of this trial. The training shows effects on stress but to assign this effect to a change in the students' metacognitive beliefs was impossible. A new RCT with larger sample sizes is being planned.

3) <u>Patient and Public Involvement: Feedback on Important Characteristics of MCT Therapy Included in the Cardiac Rehabilitation Pathway</u>
Gemma Shields¹, Adrian Wells, ^{1,2}, Lora Capobianco², Linda Davies¹

University of Manchester, UK¹, Greater Manchester NHS Foundation Trust, UK²

The MCT-Pathway study is looking at implementing metacognitive therapy (MCT) in the cardiac rehabilitation pathway. As part of this study a stated preference survey is being conducted to estimate preferences for psychological care within the cardiac rehabilitation pathway. The aim was to identify the key characteristics of MCT/psychological therapy that service users perceive as important to inform the design of the stated preference. Discussion sessions were held with the MCT Pathway patient and public involvement (PPI) group to identify characteristics and levels for the stated preference survey. PPI members discussed the characteristics that they would consider when deciding whether to attend MCT therapy. Key characteristics were agreed to be the person providing therapy, information provided prior to therapy starting, location and weekly time commitment. The debate between PPI members demonstrates that participant characteristics will impact attendance. The PPI feedback shows that potential participants of MCT will consider a range of characteristics before deciding on whether to attend sessions. This information can help to inform researchers, practice and policy.

4) MCT for Major Depressive Disorder: Session-to-Session Analyses
Audun Havnen¹, Odin Hjemdal, Leif E.O. Kennair¹, Roger Hagen¹, & Stian Solem¹

Norwegian University of Science and Technology, Norway¹

The Major Depressive Disorder Scale (MDD-S) is a measure specially developed to assess symptoms of the cognitive attentional syndrome and metacognitive beliefs in depressed individuals, but the psychometric properties and sensitivity to change has yet to be tested. We aimed to evaluate the psychometric properties of the MDD-S, and if it is sensitive to between-session change during MCT treatment. The study is based on a randomized controlled trial of MCT vs wait list for depression. Thirty-seven patients underwent 10 sessions and completed MDD-S and BDI prior to each session. The MDD-S was sensitive to between-session change, and 40% of the sample had 25-50% symptom reduction after the 2nd session. Internal reliability was high (alpha range .844 to .914). Change in severity of CAS (items 1 to 4 on MDD-S) was associated with change in severity of depression (assessed with BDI) across sessions, with correlation coefficients ranging r=.651 to r=.787. MCT is a promising treatment for depression. Preliminary analysis demonstrated that MDD-S has good psychometric properties, is a valid measure of depression and is sensitive to treatment change.

5) Patient and Public Involvement within the MCT Cardiac Rehabilitation Pathway Zara Hussain¹, Lora Capobianco¹, Lindsey Brown¹, & Adrian Wells^{1,2}

Greater Manchester NHS Foundation Trust, UK1, University of Manchester, UK2

In recent years, the importance of public and patient involvement (PPI) within psychological research has increased amongst funding bodies such as NIHR due to the belief PPI can contribute to improved quality of healthcare services for patients. The MCT- Pathway study aims to assess the effectiveness of metacognitive therapy in reducing symptoms of anxiety and depression among cardiac rehabilitation (CR) patients. As part of the study, PPI has been integrated within all stages of design and implementation. This poster aims to review and evaluate the contribution of PPI within the MCT pathway trial. Throughout the PPI project, quarterly PPI advisory group meetings were held with the MCT Pathway patient and public involvement group. In addition, 3 individual interviews, and 2 focus groups were held to provide feedback on project elements (i.e. home-based MCT manual), and to provide feedback on patient experiences, roles and contributions towards the project. The contribution of PPI to the MCT- pathway trial, has been reviewed for each stage of the study design. PPI involvement has made a positive contribution throughout the pathway trial with the national standards for public involvement guidelines met. PPI members have been involved throughout each stage of the PATHWAY trial including grant writing, ethics applications, recruitment and retention of patients, and dissemination. More specifically, PPI members have provided feedback on questionnaire design and recruitment strategy, assisted in the piloting of the WS3 self-help MCT manual, have attended the BCS conference and will be assisting in dissemination. Challenges and difficulties of involving PPI within a psychological trial will also be discussed. PPI contribution has allowed for valuable patient feedback on all aspects of research design and implementation, facilitating a patient-centred approach which can inform policy and practice. The PPI model used allowed for co-production on a variety of aspects of the research project. However, PPI feedback often did not take into consideration the range of CR patient experiences, when providing their recommendations.

6) <u>Project Management in Clinical Research: A Case Study of the MCT-PATHWAY Trial</u> Avinash Atwal¹, Lora Capobianco¹ & Adrian Wells^{1,2}

Greater Manchester NHS Foundation Trust, UK¹, University of Manchester, UK²

Successful project management is often associated with the final outcome of the project, with one of the key factors to project success being the project management methodology (PMM) used. Three of the most common project management methodologies include: PRINCE2, PM Body of Knowledge (PMBOK), and agile. The Agile approach involves breaking down the project into requirements based on importance and delivering each section individually. The process allows flexibility and anticipates change. This iterative styled process responds and adapts to change whilst ensuring results are produced. PRINCE2 provides a process for coordinating projects with a clearly defined framework. The methods are based on projects in controlled environments and focusses on delivering one or more products to an agreed case. PMBOK can usually be applied to most projects in order to achieve success and is broken down into five process groups Initiating, Planning, Executing, Monitoring and controlling and Closing). It also comprises of ten knowledge areas that fall into one of five process groups. These approaches have most commonly been evaluated in business settings and engineering and software projects, and little is known about the appropriateness of these methodologies in managing clinical research studies. The aim was to evaluate which project management approach (PMBOK, PRINCE2 and Agile) is most appropriate for managing a psychological clinical trial (MCT-PATHWAY). A comparison of three classical project management processes approaches was conducted comparing the methods, differences, and advantages of each approach. The three approaches differ significantly in their approaches to managing clinical research. The poster will compare the project management methods, highlighting the advantages and disadvantages of these approaches and identify which approach is best suited for managing a psychological clinical trial. While all three approaches have proved to be successful in managing business, engineering and software based projects, less is known about the appropriateness of their use in clinical research. With many clinical trials failing to deliver because of the lack of a structured, practical, businesslike approach to trial management the study will provide insight into three project management approaches and their suitability for clinical research.

7) <u>A Randomized Controlled Trial Comparing the Attention Training Technique and Mindful Self-Compassion for Students With Symptoms of Depression and Anxiety</u>
Ragni Bleie Haukaas¹, Ingrid Bondkall Gjerde¹, Grunde Varting¹, Havard Engen Hallan¹ & Stian Solem¹

Norwegian University of Science and Technology, Norway¹

The Attention Training Technique (ATT) and Mindful Self-Compassion (MSC) are two promising psychological interventions. ATT is designed to strengthen attentional control and promote external focus of attention, while MSC uses guided meditation and exercises to promote self-compassion. H1: Both interventions will lead to a significant reduction in symptoms of anxiety and depression. H2: Both interventions will give a significant increase in mindfulness, attention flexibility, and self-compassion and treatment-responders will experience more change than non-responders on these measures. In this RCT, a threesession intervention trial was conducted in which university students with self-reported symptoms of depression, anxiety, or stress were randomly assigned to an ATT-group (n = 40) or a MSC-group (n = 41). Participants listened to audiotapes of ATT or MSC in group sessions and as homework between sessions, before discussing in groups how to apply these principles in their lives. Both hypotheses were supported. Results were maintained at 6month follow-up. Improvement in attention flexibility was the only significant unique predictor of treatment response. The study supports ATT and MSC for students with symptoms of depression and anxiety. Symptom improvement seems related to changes in attention flexibility across both theoretical frameworks. Thus, targeting attention flexibility should be of interest in psychological treatment and future research.

8) <u>Attention Training Technique in a single case of Schizo-Affective Disorder with auditory</u> hallucinations

Karin E.P. Carter¹, & Adrian Wells^{1,2}

Greater Manchester NHS Foundation Trust, UK1, University of Manchester, UK2

A 41 year old female with schizo-affective disorder presenting with an eight year history of auditory hallucinations participated in a single case treatment study (A-B-A-B-A-C-B) of the effects of the Attention Training Technique (ATT). No anti-psychotic medication was prescribed in this case following a serious adverse reaction in the past. The aim of the study was to test the impact of ATT on the frequency and duration of hallucinations using a repeated return to baseline followed by an alternating treatment design. The alternative intervention consisted of autogenic relaxation instructions. The patient monitored the frequency, duration and her distress over the voices on a daily basis during baseline and intervention phases across a study period of 80 weeks. Visual analysis of the data showed that ATT when introduced at three phases following baselines or control conditions was associated with a reduction in auditory hallucination frequency and duration compared to the other phases. This contrasted with the autogenic relaxation intervention that was associated with an increase in duration and frequency of voices. The perceived benefits of ATT were maintained for varying periods of time.

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Thank you!

See you in 2022 at the 5th International Conference of Metacognitive Therapy!

