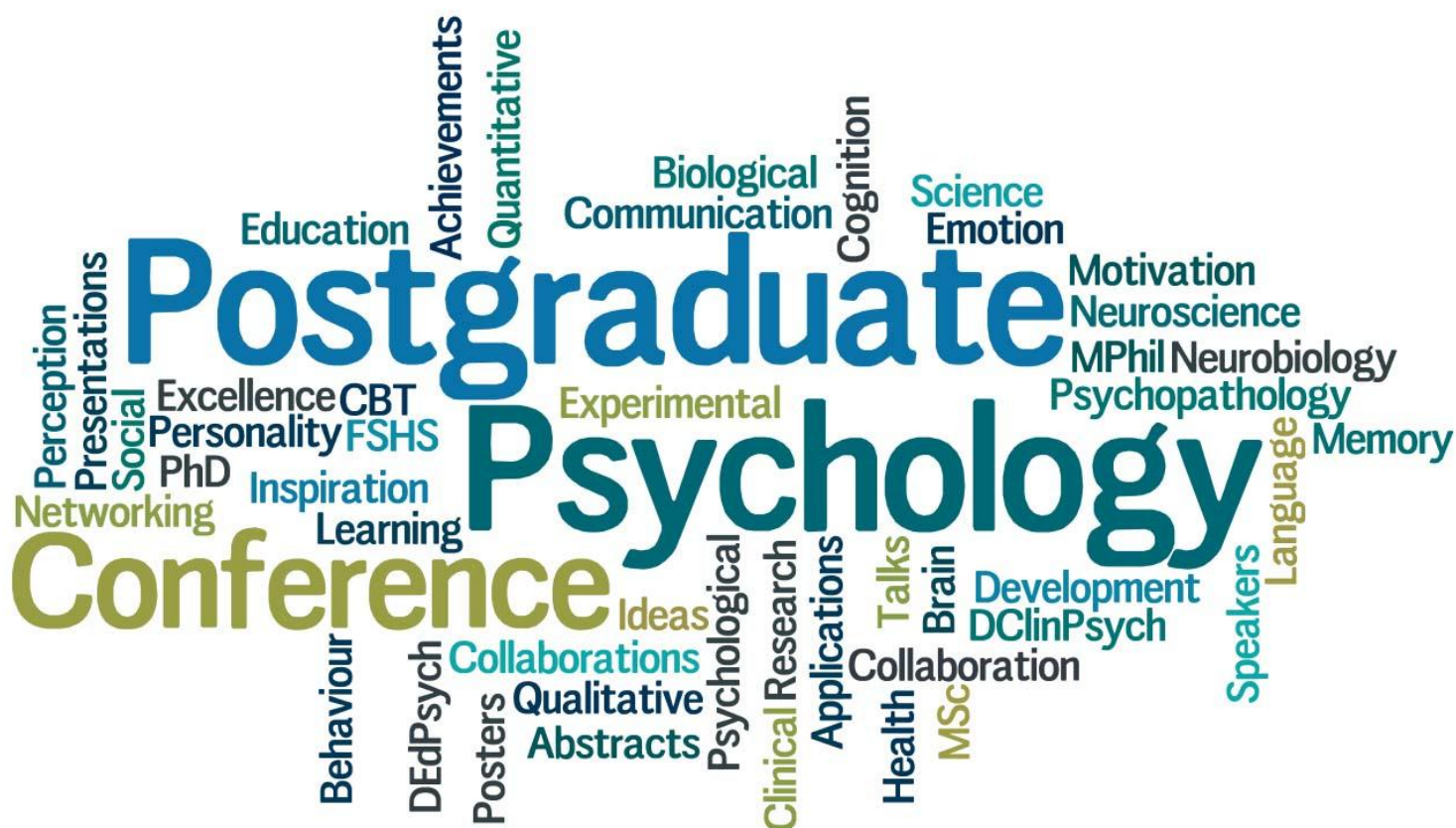


# The 1<sup>st</sup> Postgraduate Psychology Conference

12-13 June 2012

University of Southampton



**Conference Programme**

# The 1<sup>st</sup> Postgraduate Psychology Conference

12-13 June 2012

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Welcome to the first Postgraduate Psychology Conference of the University of Southampton. In this booklet you will find the conference programme and abstracts from all presenters listed by session. The abstracts for talks will be in presentation order and the abstracts for posters will be in alphabetical order.

We are very grateful to Dr Graeme Fairchild, University of Southampton and Professor Paul Salkovskis, University of Bath who will be giving talks at the conference. Also, many thanks go to the academic staff who have kindly agreed to act as judges and session chairs and to the Faculty of Social and Human Sciences and Psychology who have jointly funded this conference.

Dr Graeme Fairchild, University of Southampton

Tuesday 12<sup>th</sup> June, 4pm, 44/LT A

*Underneath the hoodie: Neuroimaging studies of disruptive behaviour disorders.*

Professor Paul Salkovskis, University of Bath

Wednesday 13<sup>th</sup> June, 3pm, 44/LT A

*Understanding and treating anxiety: Making sense of the transition between a necessary emotion and an unnecessary disorder.*

## *Registration*

Registration for the conference will be open until 8<sup>th</sup> June. Registration badges can be collected from 44/3031 throughout the day. Please print a copy of this conference programme if you require one.

## *Catering*

A sandwich buffet will be provided for registered participants on each day and drinking water is available in the iZone (44/3093), mail room (44/3115), kitchen (44/4025) and at the main entrance (Level 2).

## *Oral Presentations*

All equipment in the lecture theatres will be checked to ensure that it is working correctly. However, in the event of any unforeseen problems a 'runner' will be available in each lecture theatre to help as required. Presenters please check your presentation works on the host computer in advance to avoid delays during the sessions. Please be considerate to presenters and members of the audience when entering and leaving lecture theatres between talks.

## *Poster Presentations*

Please ensure your poster is displayed before the start of your poster session and is removed promptly at the end of the session.

## *Presenters*

Prizes will be awarded for the best talk and the best poster. The judging criteria is available on blackboard.

## *Organising committee*

Natalie Mestry, Dan Powell, Nadia Peppia and Pavlina Markomichali.

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# Programme

## Day 1

Tuesday 12<sup>th</sup> June

09.00 – 09.45	Registration	44/3029-3033
09.40 – 10.00	Welcome address	44/LT A
<b>10.00 – 11.20</b>	<b>Talks (Session One)</b> <i>Chair: Phil Higham</i>	44/LT A
	10.00 – 10.20	Anna Redding
	10.20 – 10.40	Ruchika Walton
	10.40 – 11.00	Jemma Marshall
	11.00 – 11.20	Alana Tooze
11.20 – 11.40	Coffee Break	44/3029-3033
<b>11.40 – 13.00</b>	<b>Talks (Session Two)</b> <i>Chair: Simon Liversedge</i>	44/LT A and LT B
LT A	11.40 – 12.00	Joanna Gorman
	12.00 – 12.20	Emily David
	12.20 – 12.40	Khadija Chaudhry
LT B	<i>Chair: Shui-I Shih</i>	
	11.40 – 12.00	Louise Melhuish
	12.00 – 12.20	Gülcan Garip
	12.20 – 12.40	Anna Jepson
	12.40 – 13.00	Rachael Gilson
13.00 – 14.00	Lunch	44/3029-3033
<b>14.00 – 16.00</b>	<b>Posters (Session One)</b> <i>Judges: Flis Bishop &amp; Matt Garner</i>	44/LVL
Craig Allison	Pavlina Markomichali	Natasha Pitre
Asnina Anandan	Laura McGinn	Daniel Powell
Chia-Fen Hsu	Krislyn McWilliams	Kate Sully
Jeff Lambert	Sarah Renouf	
Chrysanthi Leonidou	Nadia Peppas	
15.30 – 16.00	Coffee	44/LVL 1
<b>16.00 – 17.00</b>	<b>Dr Graeme Fairchild</b>	44/LT A

# Programme

## Day 2

Wednesday 13<sup>th</sup> June

09.00 – 09.20	Registration	44/3029-3033
<b>09.20 – 10.20</b>	<b>Talks (Session Three)</b> <i>Chair: Roger Ingham</i>	44/LT A
	09.20 – 09.40	Soljana Çili
	09.40 – 10.00	Natalie Mestry
	10.00 – 10.20	Jenny Josephs
10.20 – 10.40	Coffee Break	44/3029-3033
<b>10.40 – 12.00</b>	<b>Talks (Session Four)</b> <i>Chair: Ed Redhead</i>	44/LT A
	10.40 – 11.00	Helen Bolderston
	11.00 – 11.20	Marianne Roberts
	11.20 – 11.40	Thomas Richardson
	11.40 – 12.00	Ben Ainsworth
12.00 – 13.00	Lunch	44/3029-3033
<b>13.00 – 15.00</b>	<b>Posters (Session Two)</b> <i>Judges: Steve Glautier &amp; Karin Mogg</i>	44/LVL 1
Kenny Brackstone	Feifei Liang	Sara Robertson
Michael Cutter	Nikhila Mahadevan	Katarzyna Zawadzka
Nicholas Hedger	Carl Mann & Jason Kass	
Louise-Ann Leyland	Lorna Otway	
14.30 – 15.00	Coffee	44/LVL 1
<b>15.00 – 16.30</b>	<b>Prof. Paul Salkovskis</b>	44/LT A
16.30 – 17.00	Prizes	44/LT A

# Internal Speaker

## Underneath the hoodie: Neuroimaging studies of disruptive behaviour disorders

Graeme Fairchild\*<sup>1,2</sup>

<sup>1</sup>University of Southampton, UK; <sup>2</sup>Department of Psychiatry, University of Cambridge, UK

Adolescents with disruptive behaviour disorders commit a disproportionate amount of all criminal offences, with this group committing around 50% of all recorded offences. This group also places a significant burden on society, as it costs society 10 times as much to raise them to adulthood as children without conduct problems. Most research on disruptive behaviour disorders has focused on family processes such as ineffective parenting or maltreatment, but there is an increasing recognition that genetic and neurobiological factors may play a role in the aetiology of these conditions. In this presentation, I will describe recent work from our laboratory investigating neuropsychological function and changes in brain structure and function in adolescents with disruptive behaviour disorders. These individuals show difficulties in recognising negatively-valenced facial expressions and learning from punishment, and are less sensitive to the prospect of receiving negative outcomes when making decisions or taking risks. They also show reductions in amygdala, anterior insula, and prefrontal cortex grey matter volume, and altered patterns of activity in these structures when processing facial expressions or making decisions. I will discuss the implications of this research for theories that seek to explain the development of antisocial behaviour, and clinical practice with adolescents with disruptive behaviour disorders. Finally, I will consider the strengths and limitations of using brain imaging techniques to try to understand complex psychiatric disorders.

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# Guest Speaker

## Understanding and treating anxiety: Making sense of the transition between a necessary emotion and an unnecessary disorder

Paul Salkovskis\*<sup>1</sup>

<sup>1</sup>University of Bath, UK

Anxiety can be both good and bad. In its most common usage, Anxiety is understood as a normal emotional response which is essential for life and wellbeing because of the way it alerts us to and prepares us for threat and potential danger. However, anxiety can and does run out of control, taking the form of the clinical conditions known as Anxiety Disorders (including Panic and Agoraphobia, Social Phobia, Obsessive Compulsive Disorder, Post-Traumatic Stress Disorder and so on) and can also become part of a malignant interaction with physical health problems, impairing both quality of life and health itself, and creating unnecessary levels of distress and disability. It is clear that normal anxiety and clinical anxiety lie on the same dimension, an understanding which has been key in the development of relatively brief and highly effective psychological treatments. Such treatments have rapidly advanced in the last half century to the point where it is reasonable to conclude that *all anxiety disorders can be effectively treated* although the requirement for psychological input varies hugely.

In this lecture, Professor Salkovskis will explain developments in the understanding and anxiety and the ways in which it can go beyond being adaptive and become an exaggerated and self-perpetuating response in anxiety disorders. He will focus on the importance of misinterpretation and the behaviours which are motivated by these misinterpretations and which in turn maintain them. The research clearly indicates that people are helped not by psychological treatment *per se*, but by the way in which such treatment makes it possible for people suffering from anxiety to reach and apply a better understanding of their own reactions. The way in which research into the nature and treatment of anxiety have been extended to the understanding and treatment of both “psychosomatic” and physical health problems will be explained. It is concluded that these developments have reached the point that it is clear that no one should suffer from severe and persistent anxiety; anxiety should be thought of as an unnecessary disorder. The psychological understanding of anxiety also has the potential to considerably reduce the distress and disability experienced by people suffering from a range of physical problems and disease. Finally, future research directions will be considered.

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# List of Presenters

## A

Ben Ainsworth  
Craig Allison  
Asnina Anandan

## B

Helen Bolderston  
Kenny Brackstone

## C

Khadija Chaudhry  
Soljana Çili  
Michael Cutter

## D

Emily David

## G

Gülcan Garip  
Rachael Gilson  
Joanna Gorman

## H

Nicholas Hedger  
Chia-Fen Hsu

## J

Anna Jepson  
Jenny Josephs

## K

Jason Kass

## L

Jeff Lambert  
Chrysanthi Leonidou  
Louise-Ann Leyland  
Feifei Liang

## M

Nikhila Mahadevan  
Carl Mann  
Pavlina Markomichali  
Jemma Marshall  
Laura McGinn  
Krislyn McWilliams  
Louise Melhuish  
Natalie Mestry

## O

Lorna Otway

## P

Nadia Peppas  
Natasha Pitre  
Daniel Powell

## R

Anna Redding  
Sarah Renouf  
Thomas Richardson  
Marianne Roberts  
Sara Robertson

## S

Kate Sully

## T

Alana Tooze

## W

Ruchika Walton

## Z

Katarzyna Zawadzka

# Talks Session 1

## **What is the lived experience of being discharged from a psychiatric inpatient stay?**

Anna Redding\*<sup>1</sup>

<sup>1</sup>University of Southampton, UK

This qualitative study used semi-structured interviews and Interpretative Phenomenological Analysis (IPA) in attempt to understand the lived experience of being discharged from psychiatric inpatient stays. Psychiatric patients encounter many difficulties post-discharge and suicide rates are high, particularly within the first three months. However, to date most research has used quantitative methods to examine these difficulties and the effectiveness of discharge interventions. Therefore, little is known about why discharge is so difficult for people with mental illness. Eight participants who had been discharged from psychiatric hospital within the last three years were interviewed to explore their experiences of discharge. Five superordinate themes emerged from the data. These are discussed along with clinical implications and suggestions for further research.

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## **Exploring the acceptability of mindfulness for older adults with recurrent depressive disorder**

Ruchika Walton\*<sup>1</sup>

<sup>1</sup>University of Southampton, UK; Southern Health NHS Foundation Trust, UK

Depression is prevalent in the older adult population, affecting approximately 15% of older adults (NICE, 2010). Mindfulness training is becoming increasingly popular as an effective intervention for affective disorders, such as recurrent depression (Kenny & Williams, 2007; Miller, Fletcher, & Kabat-Zinn, 1995). Research, supports the efficacy of mindfulness based approaches (Baer, 2003), such as mindfulness-based cognitive therapy (MBCT). Research has identified that MBCT significantly reduces the risk of depressive relapse and recurrence, for people with a history of three or more episodes (Kingston, Dooley, Bates, Lawlor, & Malone, 2007). The current literature which endorses MBCT as an effective intervention focuses on working age adults (18 – 64 years). This study focuses on the exploring the acceptability of mindfulness for older adult with depression. Inductive thematic analysis identified six main themes which were used to develop some survey items to explore attitudes towards mindfulness, within the older adult population, these findings will be discussed. Qualitative findings indicate participants' relationship with their depression, which appears more challenging in retirement, prompted interest in mindfulness. Participants interested in mindfulness expressed an unmet need for further treatment for desperation or presented with a positive sense of wanting to take control over and manage depression themselves.

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## **Prophylactic effects of mindfulness: The effects of focused and open mindfulness inductions on CO2-induced anxiety**

Jemma Marshall\*<sup>1</sup>, Ben Ainsworth<sup>1</sup>, Elizabeth Sargeant<sup>1</sup>, Verity Pinkey<sup>1</sup>, Joanna Miler<sup>1</sup>, David Baldwin<sup>1</sup>, Marcus Munafa<sup>1</sup> & Matt Garner<sup>1</sup>

<sup>1</sup>University of Southampton, UK

Mindfulness is a form of mental training/meditation that in part targets dysfunctional attention mechanisms implicated in emotion dysregulation and the aetiology of mood and anxiety disorders. We compared the effects of two mindfulness inductions (focused mindfulness and open mindfulness) against general relaxation on heightened anxiety and negative affect, as induced through the inhalation of 7.5% carbon dioxide (CO<sub>2</sub>). All three groups experienced increased state anxiety and negative affect following inhalation of CO<sub>2</sub> compared to air ( $p$ 's < .01), however the magnitude of CO<sub>2</sub>-induced anxiety and negative affect was significantly and similarly reduced in the focused mindfulness and open mindfulness groups compared to the relaxation control group ( $p$ 's < .05). The CO<sub>2</sub> challenge significantly increased blood pressure and heart rate to a similar degree in all groups. Evidence that mindfulness practice attenuates subjective anxiety during the 7.5% CO<sub>2</sub> challenge in the absence of reduced autonomic arousal is consistent with suggestions that attention training may exert clinical effects through top-down mechanisms that support emotion regulation. Our findings complement those from pharmacological treatment studies to support the further use of the CO<sub>2</sub> challenge to evaluate future psychological and pharmacological treatments for anxiety.

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## **The visual processing of complex shapes by people with Autistic Spectrum Condition**

Alana Tooze\*<sup>1</sup>, Tony Brown<sup>1</sup> & Valerie Benson<sup>1</sup>

<sup>1</sup>University of Southampton, UK

The Underconnectivity Hypothesis posits that people with Autistic Spectrum Conditions (ASC) process complex information in a different manner to typically developed (TD) individuals, thereby resulting in a local processing bias for visual information (Minshew, Williams, & McFadden, 2008). 11 participants with ASC and 11 age and intellectual ability matched TD controls completed the Rey-Osterrieth Complex Figure (ROCF) copy and memory conditions whilst their eye movements were recorded. The results will be presented.

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# Talks Session 2A

## Evaluation of the Emotional First Aid Programme

Joanna Gorman\*<sup>1</sup>

<sup>1</sup>University of Southampton, UK

A training programme called Emotional First Aid was evaluated in terms of its effectiveness in reducing mental illness stigma among professionals who work with young people. The study also investigated whether Corrigan, Markowitz, Watson, Rowan and Kubiak's (2003) attribution model of public discrimination could be applied within a young person population. Adult participants (N = 30) completed questionnaire measures before and after attending the training. Questionnaires measured stigma, knowledge and familiarity with mental illness, and mood. The stigmatising attitude of viewing those with mental illness to be dangerous was reduced ( $T = 7, z = -2.62, p < 0.005$ ), along with endorsing the use of coercion in treatment of mental illnesses ( $T = 10, z = -2.43, p < 0.01$ ). The same constructs were measured within a young person population (N = 64). Consistent with attribution theory, and with Corrigan et al's (2003) findings within an adult population, pathway analysis showed that young people who view those with mental illness as dangerous will subsequently be more likely to view them as having some responsibility for their condition. This in turn leads to emotional responses such as fear or anger, which lead to a discriminatory response such as avoidance. The greatest predictor of negative responses is dangerousness. This highlights the importance of the finding that the Emotional First Aid programme has the greatest impact in reducing this particular attribution.

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## Homelessness: The relationship between childhood abuse, emotional dysregulation and rumination

Emily David\*<sup>1</sup>

<sup>1</sup>University of Southampton, UK

Research investigating the pathways leading to homelessness has predominantly focused on macro level factors of national importance (such as poverty and lack of social housing). More recently research has begun to focus upon individual and contextual factors including psychological processes that may contribute to individuals becoming and remaining homeless. As such, the present study investigated whether childhood abuse is indirectly associated with emotional dysregulation through its influence on rumination in a homeless population. A sample of 78 homeless adults completed five self-report questionnaires measuring emotion dysregulation, childhood abuse and trauma, and different facets of rumination, including rumination about an interpersonal offence, rumination as a general thought control strategy and level of thought control ability. Results were analysed for significant associations between variables and a Bootstrapping approach was applied to test possible mediational pathways as per hypotheses. Key findings revealed a significant relationship between childhood emotional abuse and emotion dysregulation (specifically limited access to emotion regulation strategies) that was mediated by rumination. The results of the present study suggest that in an adult homeless population, emotionally abusive experiences in childhood are associated with limited emotional coping strategies in adulthood, which in turn leads to a decreased ability to regulate one's emotions and this relationship occurs indirectly through its relationship with rumination. Due to the cross sectional design of the study, causal conclusions cannot be drawn. Implications for further research and interventions which seek to promote alternatives to rumination as well as to increase and improve emotion coping strategies therefore decreasing emotion dysregulation among individuals with a history of abuse are discussed.

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## **The Relationship of Childhood Bullying and Paranoid Thinking in a Clinical Population: The Role of Mediators**

Khadija Chaudhry\*<sup>1</sup>, Nick Maguire<sup>1</sup> & Katie Ashcroft<sup>1</sup>

<sup>1</sup>University of Southampton, UK; Southern Health NHS Foundation Trust, UK

The primary objective of this study was to investigate the association between childhood bullying experiences and the development of paranoid thinking in adults with psychosis. It was hypothesised that emotions and/or negative beliefs would be the mediating variables in the relationship between childhood bullying and paranoid thinking. A cross-sectional research design was employed and data was collected from 52 participants with psychosis, recruited from the Early Intervention for Psychosis teams. Data was collected through self-report measures on demographics, childhood bullying ('direct aggression', 'indirect aggression'), 'anxiety', 'depression', 'interpersonal sensitivity', 'other-self negative beliefs', 'self-self negative beliefs', 'self-other negative beliefs', paranoid thinking ('ideas of social reference', 'persecution'), and auditory hallucinations. The study found that there is an association between childhood bullying (both direct and indirect aggression) and paranoid thinking (ideas of social reference and persecution). Mediation analysis revealed that Interpersonal sensitivity significantly mediates the relationship between childhood bullying (both direct and indirect aggression) and ideas of social reference. There were significantly higher scores of childhood bullying, in the participants as compared to published literature in the normal population. The results suggest that there is a significant association between childhood bullying and paranoid thinking, mediated by interpersonal sensitivity. This finding has important clinical implications for the interventions for psychosis.

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## Talks Session 2B

### **Eating Attitudes and Behaviours in Males and Females with Cystic Fibrosis. The Role of Body Image and Coping Styles.**

Louise Melhuish\*<sup>1</sup>

<sup>1</sup>University of Southampton, UK

This thesis commences with a review of the literature on eating disorders and disturbed eating attitudes and behaviours (DEABs) in individuals with cystic fibrosis (CF). Certain physiological and psychological factors related to CF may contribute to the development of issues with food and eating. The major conclusions of the review support the notion of the presence of some DEABs in people with CF. However, it seems that the presence of diagnostic eating disorders is no higher than that found in the general population. Limitations of the research are discussed and areas for future research are identified. Following from this, the empirical paper investigated the relationships between eating behaviours and attitudes, coping styles and body image in individuals with CF. The findings suggest that females with CF present with higher rates of DEABs and males present with poorer body image. DEABs were found to be associated with poorer body image and unhelpful coping strategies. Clinicians should screen for DEABs at clinic appointments to ensure that any difficulties do not impact on the health of the individuals. The results are considered in relation to prior research, and methodological limitations as well as clinical implications are discussed.

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### **A synthesis of qualitative research on overweight and obese people's views and experiences of weight management**

Gülcan Garip\*<sup>1</sup> & Lucy Yardley<sup>1</sup>

<sup>1</sup>University of Southampton, UK

The effectiveness of existing weight management interventions may be improved by understanding overweight and obese people's perceptions of the reasons for successful and unsuccessful weight management. A systematic review was undertaken to identify and synthesize published qualitative findings to identify factors perceived by overweight and obese people as relevant to weight management. Seventeen qualitative studies of overweight and obese adults' weight management experiences, principally in the context of behavioural weight management interventions were synthesized using meta-ethnography.

Twelve themes were derived describing factors which overweight and obese people identified as relevant to weight management: health concerns, expectations towards weight management, attributions for weight gain, psychological barriers, psychological facilitators, self-perception and body image, stigmatization, sociocultural factors, environmental barriers, environmental facilitators, experiences with weight management interventions, and positive outcomes of intervention participation. By synthesizing 17 studies it was possible to build up a more complete overview of potentially relevant factors, than could be obtained from the findings from each of the individual studies. Interventions that address all of the modifiable factors identified in this review are likely to appear credible to participants and will engage with intra- and extra-individual factors that they perceive as affecting their weight management efforts.

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## **The Experience of Living with a Husband or Partner who has a Life Limiting Illness**

Anna Jepson\*<sup>1</sup>

<sup>1</sup>University of Southampton, UK

When an individual becomes ill, the relationship between partners changes (Greenberg et al., 2001) and may continue to alter over the course of an illness. Whilst there is a body of existing research exploring the changes that occur in a couples' relationship when they are faced with illness, there is presently a paucity of research looking specifically at the impact of a life-limiting illness on a couples' relationship. This research seeks to develop a greater understanding of what it means to be in a relationship when a person knows that their partner is dying and that time is limited, whilst also managing the effects of deteriorating health and symptoms such as fatigue and pain. A qualitative, idiographic approach was used to explore this question and six women, aged 65 years or older, who had either a husband or partner with a life-limiting illness were interviewed about their experiences. Interviews were analysed using interpretative phenomenological analysis (IPA: Smith, 2004) and several key themes emerged from the data; including living alongside and witnessing the partner's decline, living with uncertainty, and experiences of attunement Vs those of alienation. Findings will be discussed in relation to existing literature and clinical and research implications.

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## **Validation of the Distress Thermometer within Stroke**

Rachael Gilson\*<sup>1</sup>

<sup>1</sup>University of Southampton, UK

Post-stroke distress is common and can range from clinical levels of depression and anxiety to less intense and persistent states of emotional adjustment. National guidelines recommend that everyone should be screened for mood disturbances within six weeks of having a stroke. However, screening measures are not well validated with stroke populations. Thirty-one stroke survivors completed the Distress Thermometer (DT) and Problem List, Brief Assessment Schedule Depression Cards (BASDEC), Yale question, and Hospital Anxiety and Depression Scale (HADS). Receiver operating characteristic (ROC) analysis was carried out to investigate the accuracy of the DT, BASDEC and Yale question at identifying clinical cases relative to the HADS. Areas under the curve (AUCs) for the DT (0.74, 0.86) were significantly greater compared to guessing (AUC=0.50). Cut-off scores of at least 4 and 5 on the DT met recommended levels of sensitivity ( $\geq 0.80$ ) and specificity ( $\geq 0.60$ ). AUCs for the BASDEC and Yale question were not significantly different to an AUC of 0.50. Due to a small sample size, these results should be taken with caution. However, this study provides preliminary evidence to support the use of the DT and PL as a holistic and person-centred screening tool for the prevention and recognition of post-stroke distress.

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# Poster Session 1

## Seeing is not understanding: A comparison of spatial visualisations based on crime data maps.

Craig Allison\*<sup>1</sup>

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There are multiple ways to present data within maps, common examples include cluster and grid displays. Cluster displays show the count of a variable, such as incidents of crime, within an unspecified geographical area. In contrast, grid displays show the mean of a variable within clearly defined regions. This study examined whether display and experience influences efficient use of the maps. Participants were divided into 2 groups, Group Cluster and Group Grid. All completed a questionnaire assessing previous web experience.. Both groups then completed several tasks measuring participants' ability to locate areas of high and low crime. Accuracy and latency were recorded throughout. Finally, participants completed a questionnaire examining their recall of available information. It was found that, experience was not correlated with accuracy or latency. Although no group difference occurred in accuracy, groups' latency differed. On the first trial, Group grid had shorter latencies than Group cluster. In subsequent trials however, group cluster improved so that they became faster. The results suggest that once participants understand cluster displays they were more efficient, demonstrating learning with this display type. Irrespective of group, participants struggled to identify low crime density, suggesting participants did not fully understand either display.

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## Attitudes towards genitals and pelvic screening behaviour among Asian and non-Asian women in the United Kingdom

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Background: Evidence from studies of genital self-image and pelvic examinations (PE) intentions suggest that women delay gynaecological care due to concerns about having a health care provider view their genitals. Acculturation also has a direct positive effect on reproductive health knowledge, which influences an individual's decision to take preventative health measures. Objectives: This study aims to examine the attitudes of young Asian and non-Asian women in the UK towards female genitals and their feelings about their own genitals, the influence of these on their intentions to have a PE, and also the influence of previous experiences on having future examinations. Hypotheses: Asian women are expected to report a less positive attitude towards female genitals and their own genitals, a less positive experience of PE, and fewer intentions of having another PE. It is predicted that Asian women with higher levels of mainstream acculturation will have higher intentions to seek PE. Method: The influence of genital self-image and acculturation on participation in PE is investigated in a sample of Euro-British and Asian women. Participants will complete a battery of standardized questionnaires online. Findings from this study will contribute to the assessment and promotion of reproductive health behaviours among young British women.

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## **Can waiting awaken the resting brain? Investigation of “waiting for” induced attenuation of very low frequency brain oscillations.**

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Introduction and objectives: Difficulty waiting is a common problem for patients with Attention Deficit-Hyperactivity Disorder (ADHD). The delay aversion hypothesis suggests that alterations in dopamine modulated reward brain circuits of patients with ADHD raise a generalised aversion to delay, which motivates them to escape or avoid delay. Previous investigations of resting brain activity in patients with ADHD had identified the alteration of very low frequency (VLF, <1.5 Hz) brain oscillations (Helps, 2010). The current study examined differences in VLF brain oscillations during resting, task performance, and two waiting states. The potential association between ADHD-related abnormalities in VLF resting state brain oscillations was also examined. Method: 40 undergraduate students (age 18 to 43) were recruited for the study. They completed four activities (resting, forced waiting, free waiting, and a two choice reaction time task) under DC-EEG recording. Their self-ratings of ADHD symptoms were collected. Results: VLF EEG power attenuated significantly from resting to waiting, as well as from resting to task performance in the VLF frequency band (.02-.2 Hz). There was no significant correlation between ADHD symptoms and activities induced VLF attenuation.

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## **Using tailored health messages to increase attitudes towards exercise on people with different definitions of health**

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Existing research suggests that health definitions vary across populations and that this can influence the extent to which people respond to various health issues (Hughner & Kleine, 2008). Despite this, there is currently a gap in the literature testing the effect of health definitions on various health behaviors such as exercise. Using the theory of planned behavior (TPB) (Ajzen, 1991) as a measurement scale, the present study intends to test the effect of health messages on participants with different health definitions based on the three constructs identified by Bishop & Yardley (2010). These constructs are, biomedical, functional and wellbeing. The study will be carried out online and will involve assessing attitudes towards exercise at baseline, followed by exposure to a health message which is either consistent or inconsistent with the participant's own health definition. Results for this study should add to the understanding of exercise promotion, allowing more effective tailoring of interventions when targeting individuals or groups

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## **A Qualitative Study about Cancer Survivors' Experiences Regarding an Online Intervention for Cancer-Related Fatigue**

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Insufficient support is provided to cancer survivors who experience cancer-related fatigue (CRF) about managing their social relationships in previous interventions (Servaes et al., 2002). Internet comprises a useful resource for the development of self-management interventions directed to groups such as cancer survivors (Foster & Roffe, 2009). The online intervention RESTORE is being developed for the self-management of CRF, including a session about "talking to others". The intervention will be useful in supporting the cancer survivors to disclose their experience and enhance their social support. A qualitative study based on semi-structured interviews will be conducted in order that a group of cancer survivors will elicit their views about the intervention before it will be finalised. Participants will be individuals from the general population who experience CRF and they will have the opportunity to complete the intervention before they will be interviewed. Thematic analysis of the interview transcripts will be employed and inductive coding will be used for the development of themes. The results of this study will be disseminated to the research team who is developing the online intervention in order that any potential barriers will be eliminated and the intervention will be developed to be efficiently used by cancer survivors.

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## **Improving delay tolerance in pre-schoolers: development and implementation of a delay training programme**

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The purpose of this research is to evaluate the efficacy of a delay training paradigm aimed at improving young children's ability to tolerate delay. Normally developing children aged 4-5 years were asked to participate in a game which rewarded them for waiting before retrieving their rewards. Children participated in this game 8 times over a period of two weeks. Depending on performance, delay times were adjusted so that the game continued to challenge children as the training progressed. Children's behaviour was monitored throughout training and assessment tests were carried out before and after the training period. Results from this study will help address the question of whether young children's ability to wait for delayed rewards is amenable to practice. They will also inform the development of a training programme aimed at improving the delay tolerance of children diagnosed with ADHD.

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## **The intentions and decisions to use sexual health services among young people**

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Research shows that young people face tangible barriers in relation to visiting sexual health services. Concerns about confidentiality, judgmental staff, service environment, and embarrassment have been identified as factors which influence the use of sexual health services among young people (Stone & Ingham, 2003). This study aims to further elucidate the factors which affect the likelihood of young people using sexual health services. A multi-method approach will be employed involving questionnaires in schools, an online survey for undergraduates as well as an online public survey, and focus group discussions. The online survey has been designed to examine whether a popular model of health behaviour (The Health Action Process Approach; [HAPA] Schwarzer & Fuchs, 1996) applies to the use of sexual health services among young people.

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## **The Effect of Disorder-Related Cognitions on Self-Esteem in Individuals with PTSD and mTBI**

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Posttraumatic Stress Disorder (PTSD) is an anxiety disorder characterised by witnessing or experiencing a trauma leading to symptoms such as re-experiencing intrusive memories, hyperarousal, and avoidance. Traumatic brain injuries are caused by rotational and translational forces within the brain leading to Diffuse Axonal Injury commonly found in vehicular accidents, physical attacks, and military combat. 5% of 1.64 million soldiers deployed returned with PTSD and a brain injury (RAND, 2008). Disagreement remains concerning symptomology, assessment, and treatment of PTSD/mTBI comorbidity. Some argue post-concussive symptoms related to mTBIs are manifestation of PTSD rather than a distinct syndrome, while others are concerned that not acknowledging the mTBI could lead to physiological impairment. Present assessments have failed to determine significant differences between symptomologies of the two disorders or identify key maintaining factors including negative appraisals of the self, negative appraisals about the world, and about the trauma itself. Similarly, no one has examined these cognitive processes in mTBI and mTBI/PTSD individuals. This initial online study examines the symptom profiles and illness attributions for PTSD, mTBI, and PTSD/mTBI. The data gathered will show whether post-concussive symptoms exist independently of a diagnosis of PTSD, and whether negative attributions about self and/or illness predict symptom severity.

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## **Exploring Patients' Experiences of Social Support on the Positive Online Weight Reduction (POWeR) Intervention**

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POWeR is an online weight loss intervention currently being piloted across several NHS practices. Upon initial recruitment patients were randomised into a website only group, basic nurse support or intensive nurse support. This research will explore patients' experiences of nurse support within the intervention; previous research has produced mixed results on what patients want in terms of support for weight management and what type and level of support is most beneficial. Patients will be recruited from three NHS practices where they have recently completed the six month intervention. Telephone interviews will be conducted with twenty-four patients, eight from each group. Thematic analysis will be conducted on the transcripts. This research will hopefully provide further insight into what patients want from practitioner support and how we can deliver effective patient-practitioner communication in the context of online weight management.

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## **Neuropsychological Analyses of Comorbidity in Disruptive Behaviour Disorders: Attention-Deficit/Hyperactivity Disorder and Conduct Disorder**

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During the past two decades, a significant body of research has explored the co-occurrence of Attention-Deficit/Hyperactivity Disorder (ADHD) and Conduct Disorder (CD). Their overlap has been explained in terms of their common genetic aetiology. However, it is as yet unclear which pathophysiological or neuropsychological features of ADHD and CD are shared and which are unique. The current project will aim to clarify the issues surrounding the comorbidity between the two disorders by looking at shared and distinct neuropsychological profiles. The project will include 4 groups of 35 participants each: ADHD, CD, ADHD+CD, and controls. The neuropsychological testing battery will include Event Related Potential (ERP) and behavioural tasks, designed to explore the differences in four domains of interest: Executive Function, Reward Processing, Emotion Processing and Theory of Mind. We hypothesise that ADHD will be associated with Executive Function and Reward Processing impairments while CD will be associated with impairments on the Emotion processing tasks. Understanding these comorbidities will allow us to identify potential disorder specific neuropsychological pathways and more generic neuropsychological deficit complications. Furthermore, it will allow us to develop more sophisticated causal pathways, which in the longer term may aid clinicians to administer treatments tailored specifically to patients' individual needs.

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## **Perspectives of the use of breathing retraining exercises at home as a form of management in Asthma**

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Asthma is one of the most common chronic conditions affecting both children and adults. Self control is a foundation of current asthma control guidelines, and thus poor self-management has been linked to poor health outcomes. One of the most commonly used complimentary therapies for asthma outside of the NHS is breathing training. A number of RCT's investigating the effectiveness of breathing training have shown an increase in quality of life, and a reduction in asthma symptoms and the use of inhaled steroids. There has however been no qualitative research. This study aims to address this gap with a qualitative analysis of the perceptions that individuals with asthma have on the use of breathing training at home as a means of managing their disorder, by administering think-aloud interviews. Participants between the ages of 18-70 diagnosed with asthma and prescribed at least a preventer inhaler are shown a draft booklet being designed to provide information and instruction on breathing training. Participants are encouraged to express their thoughts aloud about the content and format. The study will explore participant's ideas, thoughts and feelings of breathing retraining through thematic analysis; organising and indexing textual data and discovering themes and concepts embedded throughout the interviews.

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## **Ambulatory salivary cortisol and the experience of fatigue: A systematic review and meta-analyses**

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The hypothalamic-pituitary-adrenal (HPA) axis is a psychoneuroendocrine regulator of the stress response and dysfunctions are associated with several physical health conditions. Fatigue may be related to hypocortisolism due to the role of cortisol in mobilizing energy resources. The study aimed to examine the relationship between unstimulated salivary cortisol in daily life and fatigue in relation to chronic fatigue syndrome (CFS) and fatigue in other patient and general populations. A systematic review yielded 18 studies that were reviewed narratively, and subset meta-analyses within case-control CFS studies examined group differences in three markers of basal cortisol secretion: (1) cortisol awakening response (CAR) total cortisol output; (2) CAR dynamic response to awakening; and (3) circadian profile (CP) total cortisol output. A blunted dynamic response to awakening was apparent within CFS compared to controls ( $d = -.34$ ) but no differences for other markers. Total cortisol output within CAR and CP were rarely associated with fatigue in other populations where, again, CAR dynamic response and diurnal slope seemed more important. Results should be considered with caution due to heterogeneity in one meta-analysis and the low number of studies within each, but may indicate which facets of basal cortisol secretion are important in fatigue (chronic or otherwise).

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## **The relationship between striatum volume and engagement in risky behaviour**

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Engagement in risky behaviour has been explored using functional brain imaging, highlighting the role of the ventral striatum in risk and reward processing (Leijenhorst et al., 2010). Structural studies reported psychopathic individuals have a larger striatum than controls (Glenn et al., 2010) and that ventral striatum volume is positively correlated with callous-unemotional traits (Fairchild et al., 2011). In the present study, 42 adults aged 18-45 years (M: 25.6 years) completed three experimental measures: risk taking task (BART-Youth, Lejuez et al., 2007), risk perception questionnaire (Benthin, Gardner et al., 2005) and an anatomical scan. Striatal volumes were measured using First, a model based automatic segmentation tool for subcortical structures (Patenaude et al., 2007). There was a significant correlation between performance on the BART-Youth and left striatum volume ( $\rho=0.352$ ,  $p<0.022$ ) reflecting increased risk taking in those with larger striatal volumes and a trend towards a correlation with the right ( $\rho=0.279$ ,  $p<0.073$ ). Individual structures revealed significant correlations with left putamen ( $\rho=0.356$ ,  $p < 0.021$ ) and nucleus accumbens ( $\rho=0.345$ ,  $p < 0.025$ ), but not with the caudate nucleus volume. These findings may have implications in understanding populations with high levels of risk taking behaviour such as adolescents and criminal offenders.

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## Talks Session 3

### **Impact of exposure and imagery rescripting on negative memory characteristics and self-representation accessibility**

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Currently there is a growing pressure on clinicians to increase the effectiveness of available treatments. Many psychologists (e.g., Kazdin, 2007) believe that the first step towards achieving this is to understand the mechanisms of change involved in these treatments. The aim of the present studies was to take this first step for imagery rescripting (IR), a cognitive-behavioural therapeutic technique. In the first study, participants were simply exposed to a negative memory. In the second study, they were helped to rescript a negative memory by a clinical psychologist. In both studies, both before and after the interventions, participants attended sessions in which they recalled their negative memory and then completed self and affect measures. Results showed that exposure (an essential component of IR) and IR modify the characteristics of negative memories and the impact these memories have on the self when retrieved. Following exposure and IR, the memories are perceived as less negative, distressing, and central to individuals' self-definition. When recalled, they activate more positive self-representations, as indicated by higher post-recall state self-esteem and positive affect. In accordance with Brewin (2006), results suggest that IR may work by reducing the accessibility of negative self-representations. The implications for clinical practice are discussed.

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### **Evidence for Configural Processing in Three Face Processing Tasks**

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Incomplete mapping between theoretical frameworks, experiments and data has meant configural processing has not been adequately defined. The aim of my thesis is to re-address hypotheses and assumptions using formal tests of in order to define the nature of configural processing in face processing. One method which provides a framework for re-analysis is general recognition theory (GRT, Ashby & Townsend, 1986), allowing exploration of perceptual and decisional interactions in multidimensional stimuli. Data were collected from upright and inverted versions of three face processing tasks: feature size; feature identity and feature orientation (Thatcher illusion). Manipulations were made in a 2 x 2 factorial design to create a complete set of stimuli conditions for each task, essential for the analysis used. Evidence for configural processing in these tasks was sort using GRT, this can be defined in terms of violations of perceptual independence, violations of perceptual separability and violations of decisional separability that are specific to upright faces. Two methods for drawing inferences were compared: The standard marginal approach and a probit model approach. Evidence for configural processing in each of the face tasks will be discussed.

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## **Inferring 3D Surface Shape from 2D Contour Curvature**

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When an image is ambiguous the visual system can utilise prior knowledge about the environment to bias perception. We know, for instance that boundary shape alone (e.g. silhouettes) can be a strong perceptual cue to the 3D shape of a smooth object. Certainly the sign of curvature of the bounding contour strongly constrains the 3D shape of the surface at the rim: convex points on the boundary project from convex surface points, whereas concave points project from surface saddle points (Koenderink & van Doorn 1976; Koenderink 1984). When curvature changes smoothly over the surface of an object, these boundary constraints may also carry information about the qualitative shape of the 3D surface interior to the boundary. My study examined whether the magnitude of curvature of the bounding contour might also contribute to the perceived 3D shape on the interior surface of an object. We generated 3D 'potatoes' and partially occluded them so only a portion of the object was visible. Observers adjusted the depth of a binocularly viewed dot so that it was perceived to lie on the surface. Findings are discussed in terms of the ecological statistics of 3D curvature and projected contours of objects in our visual environment.

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## Talks Session 4

### **Cognitive fusion and personality functioning: A mediational study**

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Both genetic and environmental risk factors appear to contribute to poor personality functioning, although to date there has been little empirical investigation of the processes that mediate these relationships. This study tested cognitive fusion (the extent to which individuals are attached to and dominated by the literal content of thought) as a mediating variable between two risk factors (childhood trauma and negative affectivity), and personality functioning in adulthood. An adult, internet-recruited, community sample (N = 196) completed self-report measures of childhood trauma, affect intensity, cognitive fusion, and personality functioning, in a cross-sectional study. Regression analysis showed that cognitive fusion fully mediated the relationships between both risk factors and adult personality functioning. Although no causal claims can be made, this study provides preliminary evidence that cognitive fusion is implicated in poor personality functioning. Given that childhood experiences and genetics cannot be altered, it is important to identify intermediary processes such as fusion, which can be targeted in psychotherapy. We consider the possible implications of these findings for individuals with personality disorder diagnoses.

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### **Understanding chronic pain using a threat processing approach; a visual probe study of attentional bias in fibromyalgia**

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Despite evidence that many chronic pain conditions are associated with attentional bias to pain related threat, very little research has investigated whether the same is true for fibromyalgia, despite the fact it is arguably an archetypal chronic pain condition. Preliminary evidence from studies using the Stroop and the startle paradigm suggest that fibromyalgia is associated with a generalised threat processing bias. This study aimed to extend the limited research into possible threat processing biases in fibromyalgia using the visual probe paradigm. Selective attention to general threat words was tested in a sample of 17 fibromyalgia patients and 17 healthy controls. Results revealed a trend toward an interaction between group and the measures of attentional bias ( $p = 0.090$ ) although this did not reach significance. Inspection of attentional bias scores provided evidence that this trend related to hypervigilance to threat in the fibromyalgia group. These findings offer the first indication that the large evidence base on attentional bias to disorder-specific threat in chronic pain may extend to broader sensitivity to threat in fibromyalgia. Further research is required in order to determine the reliability of these findings.

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## **Computer-based Psychological Interventions for Eating Disorders: A Systematic Review and Meta-Analysis**

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**Objective:** To systematically review the literature on computer-based psychological interventions for eating disorders and conduct a meta-analysis of the Randomised Controlled Trials (RCT) studies. **Method:** Key terms and eligibility criteria were used in database and hand searches, resulting in 43 papers, and twenty-one (n = 21) RCTs were included in a standard meta-analysis. **Results:** Ten different computer-based interventions are reviewed. The meta-analysis revealed that at post-treatment a number of important variables (weight, shape, hunger, drive for thinness, bulimia, & depression) achieved significant effects. At follow-up only the drive for thinness, self-esteem and depressive symptoms remained significant. A meta-analysis of five of these studies demonstrated few differences in outcomes between computer based and face-to-face interventions. Significant differences in level of dropout existed depending on the type of intervention, age-group, delivery mode and communication type. Sub-group analysis indicated significant differences in outcomes depending on clinical population, method of delivery and level of therapist support. **Conclusion:** There is a need to research what elements of treatments work best and for whom, the role of therapist factors and the influence of severity and type of presenting problem, delivery format, support type, age group and communication mode.

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## **Mindfulness, Attention and Emotion Processing**

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Neuro-cognitive models emphasise several deficits in emotion processing and cognitive control in the aetiology and maintenance of anxiety disorders; characterised by a tendency to maladaptively appraise, select and regulate negative emotional information. Across a series of studies in healthy volunteers we examined the links between trait mindfulness, self-report anxiety, depression and both self-report and computerized-cognitive measures of executive attention and emotion processing. Initial self-report evaluations confirmed that higher levels of trait mindfulness were strongly associated with lower levels of anxiety and depression, and greater cognitive/attentional control. In addition trait mindfulness was associated with greater executive attention, improved emotion processing and reduced intrusive thoughts. In three follow-up studies we explored the extent to which short-courses of guided-meditation improved cognition and emotion processing in healthy volunteers. Participants completed a series of questionnaire and neuro-cognitive measures of attention and emotion processing in conjunction with structured deliveries of guided meditation. Findings suggest that guided meditation can lead to improvements in experimental measures of executive attention and physiological measures of threat-appraisal. In conjunction with observed changes in self-report measures of subjective mood, these findings clarify the neuro-psychological mechanisms through which mindfulness/meditation interventions can lead to subsequent improvements in mood and cognitive function.

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## Poster Session 2

### **Nostalgia Disrupts the Link between Loneliness and Negative Psychological Well-Being**

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Nostalgia serves many psychological functions that are fundamental to mental health and well-being. Previous research has shown that nostalgia counteracts reductions in perceived social support caused by loneliness (Zhou, Sedikides, Wildschut, & Gao, 2008). The present research aimed to empirically substantiate the notion that lonely individuals derive psychological benefits from nostalgia, in particular, life satisfaction and well-being. Three hundred ten participants completed measures of loneliness and were then randomly assigned to think about either a nostalgic or ordinary event from their past. Results revealed that nostalgia bolstered feelings of satisfaction in life and well-being among participants high (compared to low) in loneliness. Mediation analyses revealed that self-esteem and a sense of meaning in life contributed, in part, to increased feelings of satisfaction in life and well-being caused by nostalgia. Thus, by boosting self-esteem and a sense of meaning, nostalgia disrupted the link between loneliness and negative psychological well-being. These findings reinforce the notion that nostalgia is a psychological resource which protects against the harmful repercussions of loneliness.

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### **Do Readers Process Spaced Compounds as a Single Unit?**

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Current models of eye-movement control during reading differ on whether words are processed in serial, or if several words are processed simultaneously, in parallel. The current study investigates the processing of spaced compounds (e.g. teddy bear) in the context of this debate. Several studies suggest that spaced compounds may be stored as single lexical units. As a result the constituent words may be processed in parallel as part of a larger whole. In the boundary paradigm readers are presented with a false preview of an upcoming word until their eyes cross an invisible boundary, at which point the correct word is shown. The reduced viewing times on the word when correct previews are presented is called the preview benefit, showing that readers already partially processed that word. In this study spaced compounds will be presented using the boundary paradigm to investigate whether readers obtain preview benefit from the word two words away from fixation when it is the second constituent of a spaced compound. In general, preview benefit is not found two words from the currently fixated word, so if readers do gain preview benefit in this case, it would suggest that spaced compounds are processed as single lexical units.

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## **Implicit Evaluation of Emotional Faces**

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Behavioural observations suggest that threatening facial expressions have special status in capturing attention (Vuilleumier, 2005). Models of “emotional attention” account for these findings by invoking a subcortical pathway that pre-attentively evaluates the emotional content of a stimulus, before directing processing resources. A shortcoming of this literature is that studies rarely use control stimuli to dissociate effects driven by i) emotion evaluation ii) low-level stimulus properties (e.g. patches of high contrast), so the apparently “emotional” modulations of attention observed in previous studies may be explained by low-level confounds. It is therefore incumbent on researchers to design and validate stimuli that maintain the same low-level properties as facial expressions, but eliminate emotional evaluation. In this research, we built on previous work showing that luminance profile reversal (creating an image similar to a photo negative) and spatial inversion disrupt emotion recognition (Gray, Adams & Garner, 2010) and tested whether these manipulations disrupt the automatic evaluation of facial expressions. Using the Extrinsic Affective Simon Task (EAST) we found that the manipulations compromise an observer’s ability to evaluate expressions, despite the low-level statistics of the image being unchanged. These control stimuli therefore have broad applications in many emotional attention paradigms (e.g. visual search, dot probe).

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## **Patterns of Eye Movements during Cancellation Tasks in Stroke Patients Exhibiting Hemispatial Neglect**

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To investigate whether hemispatial neglect occurs due to an information sampling deficit or impaired processing of information on the left we measured eye movements of stroke patients whilst they completed a sub-set of the Behavioural Inattention Test (Wilson, Cockburn, & Halligan, 1987) over three sessions. Participants who initially demonstrated left neglect in star and letter cancellation tasks exhibited a marked sampling deficit, with fewer visits being made and less total time spent on the far left regions of the stimuli. In the later testing sessions, a different pattern of eye movements emerged. The amount of time spent on the left increased and average gaze durations were inflated on the far left region compared with the other regions. However, behavioural measures (from the letter cancellation task) showed that, despite sampling of information on the left of the stimulus in the later testing sessions, neglect was still present, indicating a processing deficit. This suggests that, even though over time information on the left side could be fixated, the acquisition and processing of that information was impaired. Overall, these results demonstrate neglect can arise due to both information sampling and information processing deficits.

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## **Interword spacing effects on the acquisition of new vocabulary for readers of Chinese as a second language**

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We examined whether interword spacing facilitated the acquisition of new vocabulary (two-character words) for readers of Chinese as a second language. The experiment contained learning and test sessions. In the learning session, 24 participants' eye movements were recorded as they learned Chinese new words embedded in explanatory sentences. Participants were divided into further subgroups – half learned the new words in spaced sentences, and half in unspaced sentences. On the following day, participants returned for the test session where the new words were presented in another set of sentences; here, all participants read unspaced text. Participants in the spaced learning group read the target words more quickly than those in the unspaced learning group. Critically, these differences were maintained during the test session (where all participants read unspaced text), indicating that the benefit from interword spacing enhanced participants' learning of the new words and was not a transient effect limited to occasions when inter-word spacing was present in the printed text. We argue that the insertion of interword spaces may allow readers to form a more fully specified representation of the new word, or to strengthen connections between representations of the constituent characters and the multi-character word.

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## **The Status Regulating Role of Self-Esteem**

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Why did human beings evolve to possess self-esteem? One theory, namely, Sociometer Theory (SMT) (Leary, 1999) proposes that because inclusion in social groups was crucial to our ancestors' survival, self-esteem evolved to track our level of inclusion in social groups, and raise this level of inclusion when it got too low. This research develops and tests a new theory of self-esteem called Dominometer Theory (DMT). DMT proposes that in addition to inclusion, self-esteem tracks status, and motivates behaviour suitable to one's social role. We hypothesized that: 1. Higher status predicts higher self-esteem. 2. Higher self-esteem predicts more dominant behaviour. 3. Manipulating status will affect self-esteem, i.e. raising/lowering status will raise/lower self-esteem, respectively. 4. The link between status and self-esteem will be maintained after controlling for inclusion, thereby empirically distinguishing DMT from SMT. We conducted three studies. Study 1 (N=853) showed that perceived status and self-esteem were positively correlated after controlling for perceived inclusion. Study 2 (N=620) showed that self-esteem and self-reported dominant behaviour were positive correlated after controlling for self-reported agreeable behaviour. Study 3 (N=110) showed that raising/lowering anticipated status raised/lowered self-esteem, respectively. Thus, in support of DMT, self-esteem tracks status in social groups and influences behaviour accordingly.

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## **Using eye-movements and verbalization to investigate spectatorship in Edouard Manet's painting (1882) 'A Bar at the Folies-Bergère.'**

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A Bar at the Folies-Bergère is an image that intentionally engages with the notion of spectatorship in art, by articulating a complex and geometrically impossible relationship between objects and reflections, subtleties that take time to become apparent. The painting unsettles the conventional relationship between picture and spectator and represents a radical moment in the development of pictorial modes of address. Issues of pictorial address have been extensively theorized (Fried, 1998, Manet's Modernism: or The Face of Painting in the 1860s, Chicago, University of Chicago Press) and remain relevant for artists today. To explore cognitive processing generally during inspection of the picture, and to investigate whether we might gain insight into psychological processes associated with spectatorship, we recorded eye movements and verbal responses from experts and novices as they responded to questions directing them towards a specific mode of spectatorship. A systematic relationship between eye movements and utterances emerged suggesting a tightly coupled referential relationship. Particular patterns of saccades over specific elements of the scene suggest observers did engage in particular patterns of spectatorship, though this occurred differentially across novices and art experts.

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## **Exploring the Effects of Attachment Security Priming on Depressed Mood**

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On the basis of findings documenting a link between attachment insecurity and depression (e.g., Carnelley et al., 1994; Cyranowski et al., 2002), the aim of the present experiment was to explore the effects of attachment security priming on depressed mood, in an attempt to uncover any causal relationships between attachment style and depression. Participants (N = 154) were randomly allocated to secure, anxious, avoidant or neutral priming conditions. Those in the secure priming condition reported less post-prime depressed mood than those in the anxious prime condition. Participants in the secure and avoidant and the secure and neutral conditions did not differ from each other in post-prime depressed mood. The findings suggest that there is a causal relationship between attachment anxiety and depression and that depression is associated with negative models of self, as opposed to negative models of others. The results are promising and suggest that attachment security priming could be further developed for use in the treatment for depression.

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## **Nostalgia and Wellbeing across the Lifespan**

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Nostalgia is a prevalent and predominantly positive affective response to meaningful autobiographical memories (Wildschut et al., 2006). Nostalgia serves adaptive functions, and might become more important in older age as an emotion-regulation mechanism in response to age-related psychosocial challenges (Carstensen et al., 1999). However, most research has examined nostalgia in younger samples. To address this shortfall, we conducted two studies to examine the association between nostalgia and wellbeing across the lifespan. In Study 1 (N=267, MAGE=51, range 20-80), participants rated the extent to which they experienced past-oriented longing (a central facet of nostalgia; Hepper et al., 2012) and completed measures of wellbeing. In Study 2 (N=444, MAGE=50, range 18-91), participants completed measures of nostalgia proneness and wellbeing. Results demonstrated that wellbeing increased with age in individuals with high levels of nostalgia, but not in individuals with low levels of nostalgia. People who long for the past and are prone to nostalgia become increasingly happier as they progress through life, whereas those who are not prone to past-oriented longing and nostalgia show no such change in wellbeing. Nostalgia appears to be increasingly adaptive across the lifespan.

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## **Do recollection and familiarity contribute to the magnitude of the underconfidence-with-practice effect?**

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The underconfidence-with-practice (UWP) effect is a common finding in paired-associate learning studies that incorporate more than one study-recall cycle. In these studies, participants use a percentage scale during study to judge the likelihood they will recall the target in each pair at test (judgement of learning, JOL). The general finding is that their mean JOLs match their recall percentage on cycle 1, but underestimate it on subsequent cycles – the UWP effect. Our research examined a possible explanation of the UWP effect: that people use JOLs to distinguish between items that have different strength of evidence and that they reserve their highest JOLs for items for which the quality of such evidence is especially high. This strategy produces the UWP pattern because many items without such evidence are assigned low JOLs but are still recalled successfully. To examine this possibility, we incorporated a remember/know task into our procedure to discriminate between qualitatively different types of successful retrieval. Our results suggest that participants use JOLs to distinguish between items judged as “remembered” and those judged as merely familiar (“known”), and this holds true even when the analyses are restricted only to correct answers.

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