



# CREATE

Canterbury Research and Theses Environment

Canterbury Christ Church University's repository of research outputs

<http://create.canterbury.ac.uk>

Copyright © and Moral Rights for this thesis are retained by the author and/or other copyright owners. A copy can be downloaded for personal non-commercial research or study, without prior permission or charge. This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the copyright holder/s. The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the copyright holders.

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given e.g. Amin, M. (2012) Beliefs about difficult feelings. D.Clin.Psych. thesis, Canterbury Christ Church University.

Contact: [create.library@canterbury.ac.uk](mailto:create.library@canterbury.ac.uk)



Maina Amin BSc. (Hons) MSc.

# Beliefs about Difficult Feelings

Section A: What are the psychological determinants of the experiential avoidance of emotions?

Word Count: 5506

Section B: The Development and Initial Validation of the Beliefs about Difficult Feelings Scale (BDFS).

Word Count: 8029

Section C: Critical Appraisal

Word Count: 1913

Overall Word Count: 15448

A thesis submitted in partial fulfillment of the requirements of  
Canterbury Christ Church University for the degree of  
Doctor in Clinical Psychology

OCTOBER 2012

SALOMONS  
CANTERBURY CHRIST CHURCH UNIVERSITY

## **Acknowledgements**

Firstly I would like to thank all the participants who took the time to complete my online survey, they are the real reason this was possible. A big thank you also goes to Fergal Jones and Kate Rimes for their effort, enthusiasm, time and excellent supervision. I would like to earnestly acknowledge my dear friend, flatmate, and computer programming guru Ross, for not only helping me to construct and operationalise the website and survey (a mammoth task), but also for his continued support, wizardry and seemingly never-ending patience. I would like to thank Anna for being there and the lovely Tone and Lucy for their much needed doses of encouragement. I am also very grateful to my Pomodoro buddies Gosia and Ken, you made this process SO much easier, and dare I say 'fun'. On a practical note, this task could not have achieved without Vincent the Third, Toshiba and the Pomodoro Technique. Finally, I would like to thank my parents for their incredible support and unwavering belief in me, it means a lot.

## Summary of the MRP portfolio

This portfolio investigates the role of beliefs about the experience of difficult emotions in relation to emotional avoidance and psychological distress.

**Section A** provides a review of the emotional and experiential avoidance literature with a focus on determining the proximal psychological factors that might lead individuals to avoid experiencing feelings. This section highlights the importance of beliefs, judgements and appraisals about the acceptability of negative emotions, as well as fears about the physical, psychological and social consequences of tolerating internal distress as potential drivers of emotional avoidance.

**Section B** describes the development of a new scale to identify and measure beliefs about experiencing difficult emotions. This paper gives a background and rationale for the study and outlines the methodology that was utilised to construct and psychometrically evaluate the Beliefs about Difficult Feelings Scale (BDFS). 304 participants completed the scale online along with related measures. The six clusters of beliefs that emerged from a factor analysis of 90 pilot items include Catastrophic Beliefs, Emotions are Useful, Negative Evaluation from Others, Emotions are Exhausting/Frustrating, Emotions are Transient and Emotions are Pointless. The BDFS demonstrated promising psychometric properties although further research is needed to replicate findings.

**Section C** provides a critical appraisal of this endeavour and the authors reflections on the process.

## TABLE OF CONTENTS

### **SECTION A: What are the psychological determinants of the experiential avoidance of emotions?**

<b>ABSTRACT</b> .....	<b>9</b>
<b>INTRODUCTION</b> .....	<b>10</b>
MODELS OF EMOTION REGULATION .....	12
HYPOTHESES ABOUT THE AETIOLOGY AND MAINTENANCE OF EA .....	13
RATIONALE .....	14
METHOD .....	15
<b>LITERATURE REVIEW</b> .....	<b>15</b>
MEASURES OF EA .....	16
GENERAL METHODOLOGICAL CONSIDERATIONS .....	17
THE DEVELOPMENTAL PERSPECTIVE, TRAUMA AND POST TRAUMATIC STRESS DISORDER .....	17
DETERMINANTS OF EA AND EMOTION REGULATION STRATEGIES .....	19
EA AND THEORETICAL TENSIONS BETWEEN ACT AND CBT .....	21
COGNITIVE FUSION .....	22
ANXIETY SENSITIVITY .....	24
META-EMOTIONS .....	27
<b>DISCUSSION</b> .....	<b>28</b>
FUTURE RESEARCH .....	29
CONCLUSION .....	30
<b>REFERENCES</b> .....	<b>31</b>

### **SECTION B: The Development and Initial Validation of the Beliefs about Difficult Feelings Scale (BDFS)**

<b>ABSTRACT</b> .....	<b>43</b>
<b>INTRODUCTION</b> .....	<b>44</b>
ACCEPTANCE AND COMMITMENT THERAPY .....	45
COGNITIVE BEHAVIOUR THERAPY .....	46
MEASURES OF EMOTIONAL AVOIDANCE .....	47
<i>Acceptance and Action Questionnaire (AAQ)</i> .....	47
<i>Cognitive-Behavioural Avoidance Scale (CBAS)</i> .....	48
<i>Emotional Processing Scale (EPS)</i> .....	49
<i>Difficulty in Emotion Regulation Scale (DERS)</i> .....	49
<i>Trait-Meta Mood Scale (TMMS)</i> .....	50
<i>Beliefs about Emotions Scale (BES)</i> .....	50
<i>Conclusions about existing questionnaires</i> .....	51
FRAMEWORK FOR THE CONSTRUCTION OF THE BELIEFS ABOUT DIFFICULT FEELINGS SCALE .....	51

<i>Aims</i> .....	52
<i>Hypotheses</i> .....	52
<b>METHOD</b> .....	<b>54</b>
DESIGN .....	54
PARTICIPANTS.....	54
PROCEDURE .....	55
<i>Measures</i> .....	56
<i>Ethics</i> .....	60
<i>Data Analysis</i> .....	60
<b>RESULTS</b> .....	<b>62</b>
DIFFICULT EMOTIONS.....	62
BDFS-P: PRELIMINARY ANALYSES.....	63
BDFS-P: PRINCIPAL COMPONENTS ANALYSIS.....	63
CONFIRMATORY FACTOR ANALYSIS .....	66
INTERNAL CONSISTENCY .....	67
COMPONENT STRUCTURE .....	67
GENDER DIFFERENCES.....	68
INTERNAL CORRELATIONS .....	68
TEST-RETEST RELIABILITY .....	69
CONSTRUCT VALIDITY.....	70
SELF-REPORTED PSYCHOLOGICAL AND/OR ADDICTION PROBLEMS.....	71
<b>DISCUSSION</b> .....	<b>72</b>
LIMITATIONS .....	78
CONCLUSIONS .....	79
<b>REFERENCES</b> .....	<b>80</b>
<b>SECTION C: Critical Appraisal</b>	
QUESTION 1 .....	91
QUESTION 2 .....	92
QUESTION 3 .....	94
QUESTION 4.....	95
<b>REFERENCES</b> .....	<b>99</b>
<b>SECTION D: Appendices</b>	

## List of Tables and Figures

### Tables:

Table 1: Participant Demographics

Table 2: Results of a Principal Components Analysis of the 29 item BDFS.

Table 3: Variance explained by individual components and the total BDFS scale.

Table 4: Correlations between internal subscales of the BDFS.

Table 5: Correlations between the BDFS and existing scales.

### Figures:

Figure 1: Emotions participants found most difficult to experience.

## **SECTION D: List of Appendices**

APPENDIX A. Participant Characteristics

APPENDIX B. Website

APPENDIX C. Advertisement to attract potential participants

APPENDIX D. Information for Participants

APPENDIX E. BDFS-P Item List

APPENDIX F. *The Acceptance and Action Questionnaire-II*

APPENDIX G. *The Difficulties in Emotion Regulation Scale*

APPENDIX H. *The Beliefs about Emotions Scale*

APPENDIX I. *The Trait Meta-Mood Scale*

APPENDIX J. *The Depression Anxiety and Stress Scales-21*

APPENDIX K. *The Five-Facet Mindfulness Questionnaire*

APPENDIX L. Ethics Approval Letter

APPENDIX M. Initial Principal Components Analysis solution with 12 components

APPENDIX N. Gender differences on BDFS scores

APPENDIX O. T-tests of BDFS scores and self-reported psychological/addiction problems

APPENDIX P. Executive Summary and Letter to Ethics Panel

APPENDIX Q. Publication Guidance: Journal of Cognition and Emotion

APPENDIX R: Criteria for the inclusion and exclusion of papers for Section A

APPENDIX S: Steps taken to generate and check BDFS items



Section A: What are the psychological determinants of the experiential avoidance of emotions?

Word Count: 5508

**Abstract**

Experiential Avoidance (EA) is a rapidly growing construct and conceptualised as a trans-diagnostic toxic process leading to many forms of psychological distress. This paper aimed to review EA evidence with a focus on determining the nature of its proximal psychological determinants. Literature advocates that early experiences may influence the development of maladaptive EA through exposure to distress, trauma or conditions in which negative emotions are feared, judged, invalidated, or perceived as 'bad' in some way. Empirical and theoretical evidence suggests that factors driving EA include beliefs, judgements and appraisals about the acceptability of negative primary and secondary emotions (meta-emotions) as well as fears about the physical, psychological and social consequences of tolerating internal distress. Some directions for future research are discussed.

## Introduction

Emotions essentially encompass subjective experience, behavioural expression, and physiological arousal (Lang, 1979). They serve the important adaptive function of consciously and unconsciously translating implicit and explicit information into internal experience to help negotiate the environment and identify and attain goals (Bloch, Moran & Kring, 2009). For example, emotions direct attention to potentially threatening or rewarding information and instigate responses that promote avoidance or approach behaviours (Tamir, Chiu & Gross, 2007).

Experiential Avoidance (EA) is a relatively new and rapidly growing concept in literature and includes any behaviour that functions to avoid or escape from unwanted internal experiences (e.g. bodily sensations, emotions, thoughts, memories, images) or the external contexts that elicit them (Hayes, Wilson, Gifford, Follette & Strosahl, 1996). It has been argued that the avoidance of private experiences other than emotions may actually serve an *emotionally* avoidant function due to strong associations between internal experiences and emotion (Chapman, Gratz & Brown, 2006) and as this paper focuses specifically on the avoidance of emotions, “EA” is used here interchangeably with the more common term “emotional avoidance” (e.g. Berman et al., 2010).

EA in some situations may be an adaptive self-protective strategy (e.g. distracting yourself to avoid anxiety before a job interview; Kashdan, Barrios, Forsyth & Steger, 2006) but it can become harmful when applied too rigidly preventing effective emotional responses (e.g. avoiding job interviews altogether to avoid experiencing anxiety; Giorgio et al., 2010). While efforts to alter unwanted emotions may initially result in reduced distress

## DETERMINANTS OF EMOTIONAL AVOIDANCE

and negatively reinforce avoidance behaviours, evidence suggests that chronically attempting to hide or inhibit unpleasant experiences paradoxically increases their frequency, severity and accessibility producing a 'rebound effect' (Gratz, Tull & Gunderson, 2008). Excessively focusing on avoiding and controlling distressing internal experiences can drain emotional, cognitive and physical energy leaving limited resources for other tasks (Kashdan, Breen, Afram & Terhar, 2010; Udachina et al., 2009). Moreover, behaviours sometimes utilised to avoid upsetting internal experiences such as substance use and self-harm can be harmful and problematic in themselves (Hayes et al., 1996).

An emerging body of literature has conceptualised EA as a trans-diagnostic toxic process (Campbell-Sills, Barlow, Brown & Hofmann, 2006) that is functionally associated with the development and maintenance of many forms of psychopathology including anxiety (e.g. Berman et al., 2010), self-harm (e.g. Chapman, Gratz & Brown, 2006), post-traumatic stress disorder (e.g. Thompson & Waltz, 2010), trichotillomania (e.g. Begotka, Woods & Wetterneck, 2004), panic disorder (e.g. Eifert & Heffner, 2003), substance abuse (e.g. Forsyth, Parker & Finlay, 2003), eating disorders (e.g. Rawal, Park & Williams, 2010) depressive disorders (e.g. Shahar & Herr, 2011), obsessive compulsive disorder (e.g. Briggs & Price, 2009), psychosis (e.g. Goldstone, Farhall & Ong, 2011) and borderline personality disorder (e.g. Berking, Neacsiu, Comtois & Linehan, 2009).

Treating problematic EA is evident in many mainstream therapies. Changing thoughts about feelings is a core component of Cognitive Behaviour Therapy (CBT), and some argue that EA should be emphasised much more if the therapy is to be successful (Campbell-Sills & Barlow, 2007; Leahy, 2003). The modification of beliefs concerning

## DETERMINANTS OF EMOTIONAL AVOIDANCE

difficult emotions and the exploration of more adaptive emotional processing strategies is also addressed in Rational Emotive Behaviour Therapy (REBT; Davies, 2007) and Dialectical Behaviour Therapy (DBT; Linehan, 1993). In third wave therapies such as Acceptance and Commitment Therapy (ACT; Hayes, Strosahl & Wilson, 1999) and mindfulness-based interventions (Brown & Ryan, 2003) clients are encouraged to develop a more accepting and tolerating attitude towards difficult internal experiences to reduce avoidance.

In order to delineate the psychological determinants of EA, this review will first present a model of emotion regulation, some hypotheses about the aetiology and maintenance of EA and a rationale for examining its determinants further. This is followed by a literature review of EA papers focusing on relevant theoretical and empirical evidence. The discussion section draws this evidence together and presents some implications of this synthesis for further research.

### **Models of emotion regulation**

Emotion and its regulation is an iterative process (Campos, Frankel & Camras, 2004) and when attended to and evaluated, emotion cues trigger further sets of response tendencies that involve experiential, behavioural and physiological systems which may change the duration and intensity of the various components of emotional experience (Rottenberg & Gross, 2007). 'Emotion regulation' refers to the automatic or controlled conscious and unconscious process of individuals influencing emotions in the self, others, or both (Gross & Thompson, 2007). According to Gross' (2001) process model, emotion can be regulated at various points in the emotion generative process: situation selection,

## DETERMINANTS OF EMOTIONAL AVOIDANCE

situation modification, the deployment of attention, change in cognitions or reappraisal, and response modulation (involving the regulation of experiential, behavioural, and/or physiological components). EA may occur at any of these points (Campbell-Sills & Barlow, 2007) for example individuals with panic disorder, agoraphobia, and social or specific phobias may utilise situational avoidance in ways that significantly limit their lives, or employ safety behaviours to modify situations. Thought suppression, distraction, rumination and worry have been conceptualised as forms of maladaptive attentional deployment, and 'rationalisation' where individuals alter the meaning of emotion-provoking stimuli may be a form of faulty cognitive re-appraisal. In the final response modulation stage emotions may be suppressed, perhaps via the use of substances to 'self-medicate' in an attempt to regulate difficult experiences (Campbell-Sills & Barlow, 2007).

### **Hypotheses about the aetiology and maintenance of EA**

Evidence suggests that emotion regulation develops exponentially during childhood and adolescence (Thompson & Meyer, 2007) and is considered a critical achievement of the early years (Calkins & Hill, 2007). Butler and Surawy (2004) propose EA is exacerbated in families where talking about feelings is not acceptable or customary, or where individuals have experienced emotionally traumatic or painful events such as criticism, humiliation, betrayal, rejection, cruelty, bullying etc., or been exposed to specific traumatic incidents. Furthermore EA may be affected by genetic or biological variations in speed of arousal or sensitivity to physiological changes (Butler & Surawy, 2004) with cultural and religious factors also having an impact (Watts, 2009). EA features in research on attachment styles, where insecure and avoidant adults are hypothesised to deactivate or shut off attachment-related feelings (Westen & Blagov, 2007) and research on "repressive coping styles"

## DETERMINANTS OF EMOTIONAL AVOIDANCE

suggests that some individuals habitually avoid emotional experience to manage distress (Weinberger, 1990).

Campbell-Sills and Barlow (2007) propose fundamental disturbances in the emotional responses of individuals with anxiety and mood disorders including an impaired understanding of emotions, more negative reactions to emotional experience and difficulties with repairing problematic emotions. Leahy's (2002) cognitive model of emotional schemas suggests that individuals differ in their interpretations of the significance of unpleasant emotions by holding beliefs related to the duration, comprehensibility, controllability, extremity, complexity, pathology and moral quality of emotions. Negative emotional schemas or interpretations further exacerbate the intensity, negativity, and duration of distressing emotions, and inhibit expression, validation and emotional processing (Leahy, 2003). These difficulties may be maintained by maladaptive thinking and behavioural patterns leading to further use of counterproductive emotional regulation strategies.

### **Rationale**

A preliminary literature search revealed a dramatic increase over the last decade in research from assorted theoretical orientations pertaining to "experiential" avoidance. Much of this has focused on establishing EA as a mediating factor in various forms of psychopathology with few articles addressing the potential maladaptive thinking patterns or meta-cognitions leading to EA or the nature of people's beliefs about emotions. If EA is indeed a useful and unifying theoretical construct mediating different types of psychological distress, it may be of value to further investigate its underlying psychological

## DETERMINANTS OF EMOTIONAL AVOIDANCE

determinants both to better understand the concept and address its modification in treatment.

### **Method**

A literature search of journal articles was conducted in January 2012 using the Psychinfo, Ebscohost, Cochrane and Science Direct databases with the keywords *emotional* or *experiential* AND *avoidance*. Searches were not limited by year of publication and this strategy yielded approximately 600 papers. Included articles were in English, published in peer-reviewed journals and had the above search terms appearing in the title and/or abstract and/or as a keyword. Dissertations, commentaries, opinion papers and responses were excluded. 130 articles met these criteria and were reviewed in full with the aim of extracting information relating to the proximal psychological determinants of EA.

### **Literature Review**

As expected, much of the literature focused on establishing EA as a mediating factor in various forms of psychopathology (74 articles), comparing and contrasting EA with other psychological constructs (18 articles), using EA as an outcome measure to evaluate the effectiveness of therapeutic interventions (11 articles), and developing and validating measures to determine individual differences in EA (11 articles). More recent studies have explored EA using experimental methods (13 articles) and brain imaging techniques (3 articles).

The concept of *experiential* avoidance was developed in the ACT tradition and much of the literature was directly related to this framework. To provide a more balanced and



broad critique, this review contrasts this literature with evidence from a CBT perspective. The empirical and theoretical papers selected for detailed inclusion have a distinctive or particularly robust methodology and/or unique theoretical perspective (Appendix R). This synthesis begins with a brief overview of EA measures and a general critique of the most common methods employed in research. This is followed by a summary of the aetiology of EA using evidence pertaining to trauma and PTSD. Emotion regulation strategies and theoretical tensions between ACT and CBT in terms of the potential determinants of EA are then explored. Finally the concept of meta-emotions is briefly discussed followed by some conclusions and implications for future research.

### **Measures of EA**

The most widely used measure of EA is the ten-item Acceptance and Avoidance Questionnaire (AAQ) developed by Hayes et al. (2004) described as a context-free global measure of avoidance (Kashdan et al., 2010). The AAQ requires respondents to rate how much their thoughts, feelings, memories, worries and emotions are perceived as difficult to control and interfere in their lives. The scale has been criticised due to insufficient internal reliability, face and construct validity. Authors argue that it includes too many theoretically distinct concepts (e.g. avoidant behaviours, beliefs and fears about emotions, cognitive activities related to avoidance) and may measure negative affect rather than avoidance (Fergus et al., 2011; Zvolensky & Leen-Feldner, 2005). Although a more internally consistent nine-item version has now been validated (AAQ-II; Bond et al., 2011), some researchers have developed their own measures to address these concerns. Other scales of EA include the Multidimensional Experiential Avoidance Questionnaire (MEAQ; Gamez et al., 2011), the Meta-Emotions Scale (Mitmansgruber, Beck, Hofer & Schubler, 2009), the

## DETERMINANTS OF EMOTIONAL AVOIDANCE

Affective Style Questionnaire (Hoffman et al., 2010) and the Avoidance and Fusion Questionnaire for Youth (AFQ-Y; Greco et al., 2008). Nevertheless, an overwhelming majority of studies referencing EA have utilised the AAQ, perhaps due to its popularity affording more straightforward comparison between studies, and this is an important limitation to bear in mind when considering evidence reviewed below.

### **General Methodological Considerations**

Empirical EA literature is replete with self-report measures both of EA and related constructs with several limitations. Individuals with high EA may have difficulties in accurately describing and reporting on their internal states, especially if they are unwilling to remain in contact with inner experiences (Gratz, Bornovalova, Delany-Brumsey, Nick & Lejuez, 2007). Studies also predominantly employ correlational designs limiting the power of inferences that can be made regarding causality. Finally, much of the evidence base is chiefly quantitative, often relying on regression analyses between scores on different measures to corroborate hypotheses leaving little room for a richer exploration of internal factors that might lead to EA in different populations.

### **The Developmental Perspective, Trauma and Post Traumatic Stress Disorder**

Although we have all been directly instructed to control our emotions in some way (e.g. “stop crying”, “forget about it”, “get over it”; Hayes & Wilson, 1994), Butler & Surawy (2004) suggest EA may be exacerbated in families where talking about feelings is unacceptable or where individuals have experienced traumatic or painful events. Consistent with this, Krause, Mendelson and Lynch (2003) reported a study in which participants completed self-report measures of emotional expressiveness, thought

## DETERMINANTS OF EMOTIONAL AVOIDANCE

suppression, avoidant coping, psychological abuse and retrospective parental responses to negative emotions. Respondents additionally participated in an emotionally stressful laboratory experiment in which they were exposed to moderately disturbing images of war, violence, disease etc. Authors concluded that recollected negative emotion socialisation in childhood fully mediated inhibited emotional experience and expression in adulthood and significantly predicted symptoms of anxiety and depression. Although this study utilised a cross-sectional design in a non-clinical sample, to its credit, researchers used scales other than the AAQ and tested avoidance experimentally.

Gratz et al. (2007) also reported behavioural evidence for heightened EA (indexed as unwillingness to persist on two psychologically distressing laboratory-based tasks) among treatment-seeking substance users who had experienced moderate to severe sexual, physical, and emotional abuse in childhood, compared to those reporting no or low abuse. High EA individuals were more likely to negatively evaluate their emotional responses as measured by the 'emotional acceptance' subscale of the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). Sample items such as: "When I'm upset, I become angry with myself for feeling that way" and "When I'm upset, I feel ashamed with myself for feeling that way" suggest that participants appraised emotions as bad or wrong. Authors concluded that to further explore the potential underlying factors between EA and childhood abuse, research should include constructs such as fear of emotions and self judgement. Although a cross-sectional methodology was utilised limiting the strength of causal conclusions, the study's use of substance abusing participants as a control group lent further credibility to findings as heightened EA tendencies are observed in this population in general (e.g. Forsyth et al., 2003; McHugh & Otto, 2011).

## DETERMINANTS OF EMOTIONAL AVOIDANCE

To examine interrelationships between individual and parental risk factors on adolescents' PTSD in the aftermath of a natural disaster, Polusney et al. (2011) conducted a large cross sectional survey of families in a community exposed to severe tornadoes where fatalities had occurred. They explored PTSD symptoms, disaster exposure and EA using the AAQ. Analyses revealed that EA mediated the relationship between family disaster exposure and PTSD for both adolescents and their parents, with parental PTSD symptoms independently contributing to the prediction of adolescents' PTSD symptoms. Polusney et al. (2011) concluded that it may be difficult for parents to see their child experience distress and fear, and in attempts to reduce their child's and their own anxiety, parents may communicate that it is bad to feel distress and thus inadvertently reinforce experiential avoidance. These results should however be interpreted with caution as the internal consistency of the AAQ was much lower than in other samples (parent  $\alpha = .58$ , adolescent  $\alpha = .50$ ).

Although the literature search unearthed over 40 studies relating EA to exposure to trauma/abuse or PTSD symptomatology, few discussed potential causes of EA. Research does however suggest that EA develops early on and may be reinforced in environments where negative emotions are feared, judged, invalidated, or perceived as 'bad' in some way.

### **Determinants of EA and emotion regulation strategies**

Gross's (2001) framework of emotion regulation posits that individuals utilise different emotion regulation strategies according to temporality in the emotion generation process. Cognitive reappraisal is an antecedent-focused strategy enacted prior to the triggering of emotional response tendencies and refers to attempts to change the meaning

## DETERMINANTS OF EMOTIONAL AVOIDANCE

of emotion-eliciting events. Emotional suppression is a response-focused strategy aimed at inhibiting the ongoing stream of emotional experience by controlling, changing, or hiding feelings. Conscious attempts at cognitive reappraisal and emotional suppression were originally hypothesised to lead to different psychosocial outcomes, with reappraisal resulting in reductions in negative emotional experiences with few cognitive or social consequences and suppression tending to yield more of the emotional distress that individuals wished to avoid (John & Gross, 2004).

Kashdan et al. (2006) reported a study in which undergraduates completed both the AAQ and the Emotion Regulation Questionnaire (Gross & John, 2003) that specifically measures emotion suppression and cognitive reappraisal. Using an experience-sampling methodology, participants then completed daily affect, event, social anxiety and hedonic functioning scales over a period of 21 consecutive days. Findings indicated that EA completely mediated the effects of both cognitive reappraisal and emotional suppression on daily negative and positive experiences. EA was also associated with decreased healthy life appraisals, a diminished frequency of positive events, an increased frequency of negative life events and greater negative affective experiences. Kashdan et al. (2006) concluded that EA was much more predictive of the quality of psychological experiences in everyday life than cognitive reappraisal which authors suggest is a primary process of traditional CBT.

Campbell-Sills et al. (2006) explored the association between EA and emotion suppression using exposure to an emotion provoking film. They found that participants with mood and anxiety disorders differed from control subjects in their tendency to judge

## DETERMINANTS OF EMOTIONAL AVOIDANCE

emotions as unacceptable (as indexed by the Acceptability subscale of the Meta Evaluation Scale; MES; Mayer & Stevens, 1994) and used suppression as an avoidance strategy (measured by a Responses to Emotions Questionnaire developed for the study). Authors hypothesize that the use of suppression is influenced by internal factors, such as acute appraisals of emotions (e.g. “Feeling sad right now is wrong”) and enduring beliefs about emotions (e.g. “Showing negative emotions is a sign of weakness”). Moreover, judgments about the acceptability of certain emotions might represent one type of emotional appraisal (e.g. “This anxiety is bad, so I should try to get rid of it”). Higher levels of negative emotion predicted unacceptability judgements, which in turn predicted emotional suppression suggesting that models of emotion regulation may benefit from a consideration of a person’s “in-the-moment” appraisals of the acceptability of emotions as well as their beliefs about emotions. Hayes and colleagues (1999) similarly propose that emotional distress resulting from EA may stem from negative judgments of internal experiences.

### **EA and theoretical tensions between ACT and CBT**

Many papers have argued for EA’s *added* explanatory power in models of psychopathology over and above CBT concepts such as catastrophic misinterpretations, dysfunctional core beliefs and intrusive cognitions (e.g. Briggs et al., 2009; Kashdan et al., 2006; Lee et al., 2010; Mennin, Heimberg, Turk & Fresco, 2002; Newman et al., 2011; Norberg et al., 2007; Roemer & Orsillo, 2002; Roemer, Salters, Raffa & Orsillo, 2005; Tull & Gratz, 2008). More recently, CBT theorists have responded to these claims with counter-evidence (e.g. Abramowitz et al., 2009; Berman et al., 2010; Manos, 2010; Spinhoven, Bamelis, Molendijk, Haringsma & Arntz, 2009) and this theoretical tension may directly

## DETERMINANTS OF EMOTIONAL AVOIDANCE

relate to unravelling some of the proximal psychological determinants of EA as each approach takes a slightly different view with regards to the content and function of the maladaptive thinking patterns that drive emotional avoidance. Some key articles that exemplify the tension between theoretical positions in terms of constructs related to EA such as cognitive fusion and anxiety sensitivity are reviewed below.

### **Cognitive Fusion**

According to the theoretical underpinnings of ACT, psychological inflexibility is the hallmark feature that exacerbates distress and is produced by two interrelated processes: cognitive fusion and experiential avoidance (Hayes, 2004). Cognitive fusion refers to excessive entanglement with the content of private events as if they were literally true, rather than noticing the ongoing process of thinking and feeling (Luoma & Hayes, 2003). For example if a panic-disorder patients thinks “If I get too anxious I will go crazy”, the private event of “anxiety” may lead to a behaviour such as running out of the situation “in order to reduce the anxiety” and hence avoid going crazy. As such, cognitive fusion (e.g. “My thoughts and feelings mess up my life”; “The bad things I think about myself must be true”) gives rise to experiential avoidance (e.g. “I push away thoughts and feelings that I don’t like”; “I stop doing things that are important to me whenever I feel bad”). This is thought to be a ubiquitous process that is learned early in life and reinforced by the “social-verbal community” (e.g. the acceptance of verbal reasons as a valid explanation for behaviour) and culturally sanctioned assumptions that painful thoughts and feelings are somehow bad and should be regulated or controlled at all costs throughout the lifespan (Greco et al., 2008; Hayes & Wilson, 1994).

## DETERMINANTS OF EMOTIONAL AVOIDANCE

Similarly, in a theoretical paper, Soriano, Valverde and Martinez (2004) assert that EA occurs when an individual has come to value “the need to feel well” as an absolute priority in order to live, leading to personal rules such as “I can’t live with these terrible painful thoughts and have to do something to remove them” or “I cannot do what I want because I’m feeling depressed”. Crucially in Soriano et al.’s (2004) explanation, it is not cognitions themselves that are the problem in EA. Distressing private experiences increase or decrease in aversiveness according to how they are perceived in relation to (or as contingent upon) personal values and EA is maintained when these contingencies are in opposition, for example, following a rule such as “in order to live well, you cannot feel depressed” may literally mean that a person cannot get on with their life unless all feelings of depression are controlled, avoided or suppressed. Moreover, putting “feelings of depression” in verbal opposition to “living well” may in fact increase the aversiveness of “feelings of depression” and the positive value of “living well”, thus increasing dissonance.

Some empirical evidence supporting these claims comes from studies of Generalised Anxiety Disorder (GAD; e.g. Lee et al., 2010; Roemer et al., 2005) which suggest that EA is as or more predictive of the features of GAD than cognitive control strategies such as worry and uncertainty intolerance. In a theoretical paper, Mennin et al. (2002) argue that the proportion of GAD sufferers not helped by CBT techniques are larger than for other anxiety disorders. Due to patients’ perceptions of emotions as overwhelming and dangerous, they may benefit from interventions that enhance knowledge and acceptance of emotions such as acceptance- and/or mindfulness-based techniques.



## DETERMINANTS OF EMOTIONAL AVOIDANCE

Kashdan et al.'s (2006) study (described above) of EA's effect on common emotion regulation strategies found that cognitive reappraisal exhibited few and small magnitude relations with positive psychological functioning compared with EA, as did other control and regulatory processes such as avoidant and detached coping, rumination and emotion suppression. Authors suggest that CBT focuses on these cognitive aspects in terms of form and frequency to help clients feel better (i.e. experience fewer symptoms), whereas ACT does not challenge, dispute or restructure these cognition per se, but redirects focus on acting consistently with core values (e.g. living a better and more meaningful life) by developing a willingness to be with distressing experiences whilst doing what matters in life.

### **Anxiety Sensitivity**

Anxiety Sensitivity (AS) is defined as the tendency to fear bodily symptoms associated with anxious arousal (e.g., shortness of breath, increased heart rate, dizziness) due to beliefs that these sensations will have distressing cognitive, somatic or social consequences (Reiss, 1991). AS has been empirically associated with EA in numerous studies (Forsyth et al., 2003; Gratz et al., 2008; McHugh & Otto, 2011; Stewart, Zvolensky & Eifert, 2002; Tull et al., 2002). Berman et al. (2010) however suggest that the EA model of anxiety unhelpfully departs from CBT conceptualisations because EA is a psychological process concerned with distressing private experiences in general rather than specific arousal-related bodily sensations. Instead authors postulate a cognitive diathesis model of AS comprising of particular trait-like dysfunctional beliefs or catastrophic misinterpretations of specific anxiety symptoms with three hypothesised dimensions: (a) Physical Concerns (e.g., "When I feel pain in my chest, I worry that I'm going to have a heart

## DETERMINANTS OF EMOTIONAL AVOIDANCE

attack”), (b) Social Concerns (e.g., “I worry that other people will notice my anxiety,” and (c) Cognitive Concerns (e.g., “It scares me when I am unable to keep my mind on a task”).

Berman et al. (2010) tested these predictions in 42 adults with a clinical diagnosis of anxiety disorder who completed the AAQ, Beck Depression and Anxiety Scales, and the Anxiety Sensitivity Index-3 (ASI-3; Taylor et al., 2007). Although correlational analyses revealed associations between EA, AS and anxiety symptoms, regression analyses suggested that the Physical Concerns dimension of AS was significantly associated with symptoms of anxiety irrespective of EA. Specifically, participants’ beliefs that anxious arousal will result in physical harm independently predicted symptoms of anxiety over and above the tendency to find private experiences intolerable, suggesting that the relationship between EA and anxiety may be a by-product of the variance shared with AS. Berman et al. (2010) conclude that the concept of EA may be too general to be of empirical or therapeutic value for understanding or treating anxiety disorders in comparison with CBT models which aim to modify beliefs and catastrophic misinterpretations, as opposed to increasing tolerance for all internally distressing experiences.

Other studies comparing and contrasting EA with existing CBT concepts have reached similar conclusions with cognitive factors demonstrating stronger associations than EA with some psychological symptoms or related concepts including catastrophic reactions to grief (Boelen, Van den Bout & Van den Hout, 2010), physical concerns in health anxiety (Wheaton, Berman & Abramowitz, 2010), ‘saving’ cognitions in the prediction of hoarding symptoms (Wheaton, Abramowitz, Franklin, Berman & Fabricant, 2011), physical concerns as predictive of body vigilance in panic patients (Zvolensky & Forsyth, 2002) and

## DETERMINANTS OF EMOTIONAL AVOIDANCE

obsessional beliefs in OCD (Abramowitz, Lackey, & Wheaton, 2009). The majority of these studies however employed cross-sectional methods and utilised self-report scales including the AAQ to measure concepts.

Another group of studies used lab-based experimental methods to investigate EA. Zettle, Petersen, Hocker and Provines (2010) asked participants to sort coloured straws into containers as quickly as possible whilst wearing 'drunk goggles' inducing unpleasant sensations of dizziness, blurred vision and disorientation. They found participants high in EA as indexed by the AAQ engaged in significantly more catastrophising ("I felt I couldn't stand it anymore") than low EA participants, as measured by the Coping Strategies Questionnaire. Similar findings were obtained in a study in which high and low experiential avoiders were required to cope with a painful cold pressor task (Zettle et al., 2010). Those high in EA exhibited less tolerance to pain and reported significantly more catastrophising cognitions. Undergraduates with high EA in Karekla, Forsyth and Kelly's (2004) study underwent carbon dioxide enriched air inhalations and reported a greater number of physiological and cognitive panic symptoms than low experiential avoiders, namely uncontrollability, fear and trait anxiety. Although these studies used versions of the AAQ to assess EA, overall findings suggest that EA is associated with catastrophising cognitions more than other emotion regulation strategies such as diverting attention, reinterpreting or ignoring sensations, increasing behavioural activity or coping self statements (e.g. Zettle et al., 2010). Hence in anxiety disorders, fears about the consequences of physiological arousal or internal distress may be what drives individuals to engage in EA.

### **Meta-Emotions**

Despite some tensions between CBT and ACT, both orientations (and many others theorists in literature) agree on the existence of secondary emotions or emotion about emotions. Mitmansgruber et al. (2009) postulate that these “meta-emotions” essentially lead to EA. A primary emotion may act as the ‘object’ of a secondary emotion (e.g. anxiety about the anger) so emotions such as fear or compassion can become meta-emotions when their object is the emotional self (e.g. fear of the experience of fear, compassion about the experience of anxiety). Mitmansgruber et al. (2009) assert that meta-emotions go beyond the concept of meta-cognitions because they elucidate EA processes in more meaningful ways. Meta-emotions leading to avoidance embed a different set of cognitive appraisals than meta-emotions leading to mindfulness. That is to say negative meta-emotions such as anger and anxiety reflect non-acceptance, whereas positive meta-emotions like compassion and interest suggest acceptance of one’s emotional self. Moreover, specific meta-emotions may then generate accompanying regulatory action tendencies, for example ‘anxiety’ suggests threat and uncertainty leading to EA, whereas ‘interest’ suggests curiosity and mindfulness leading to acceptance.

Mitmansgruber et al. (2009) tested their hypotheses by developing a Meta-Emotion Scale (MES) consisting of six extracted factors or meta-emotions: “contempt/shame”, “suppression”, “tough control”, “interest”, “anger” and “compassionate care”. Authors confirmed the predictive power of the first four factors against scales of psychological well-being and life satisfaction in a non-clinical student sample. When the model was tested with two further samples including a large clinical inpatient sample (n=297), some counter-intuitive findings emerged such as the beneficial effect of “tough control” on

psychological wellbeing and a correlation between positive meta-emotions and positive beliefs about worrying. It should also be noted that the MES is in its infancy as a measure and requires further testing to clarify its conceptual utility regarding emotional regulation and psychological wellbeing. With regards to determinants of EA however, this research suggests that cognitive appraisals of primary *and* secondary emotions drive both experiential approach and avoidance.

### **Discussion**

This paper aimed to review the available literature pertaining to ‘emotional’ or ‘experiential’ avoidance (EA) with a focus on determining the nature of its proximal psychological causes. According to models of emotion regulation (Gross, 2001), EA may act at any point in the temporal sequence of emotion generation and consciously or unconsciously recruit the use of various avoidance strategies such as cognitive reappraisal and emotion suppression (Kashdan et al., 2006). Early experiences can influence the development of maladaptive EA through exposure to distress, trauma, or conditions in which negative emotions are feared, judged, invalidated, or perceived as ‘bad’ in some way. EA may be further reinforced through poor parental practices or modelling.

Due to some divergent theoretical positions in literature, namely ACT and CBT, there is some debate regarding motivation for EA. ACT theorists maintain that it is not faulty cognitions, beliefs or appraisals themselves that are the problem, but the way in which these ‘rules for living’ block individuals’ movement towards valued life goals (Soriano et al., 2004). On the other hand, some proponents of CBT argue that cognitive

## DETERMINANTS OF EMOTIONAL AVOIDANCE

factors such as catastrophic misinterpretations and faulty appraisals are more strongly associated with symptoms of psychological distress than the concept of EA, which may be too broad to be of value in treating distress (anxiety disorders in particular; Berman et al., 2010). Much of the evidence supporting these positions has several limitations including the use of cross-sectional designs and self-report measures, some of which demonstrate questionable reliability and validity (e.g. AAQ). Laboratory based studies of EA however suggest particularly strong links between EA and catastrophic cognitions about the consequences of distressing internal experiences as opposed to other emotion regulation strategies such as suppression or reappraisal (Zettle et al., 2010).

The majority of literature (regardless of orientation) supports the notion that individuals hold certain beliefs or appraisals about emotions, for example “feeling sad right now is wrong”, “showing emotion is a sign of weakness” or “I cannot do what I want because I’m feeling depressed” that affect subsequent emotion processing and regulation. These beliefs have been described as maladaptive cognitions, dysfunctional beliefs, faulty appraisals or catastrophic misinterpretations in CBT frameworks or as unacceptability judgements, unhelpful rule-based contingencies, or psychologically inflexible cognitively fused interpretations in models of ACT and RFT. Moreover, the concept of meta-emotions proposes that primary emotions evoke secondary emotions and it is these meta-emotional appraisals that drive further emotional approach or avoidance (Mitmasgruber et al., 2009).

### **Future Research**

There are various ways that future research could clarify and further explore determinants of EA. Following McHugh and Otto (2010) items from several EA measures

## DETERMINANTS OF EMOTIONAL AVOIDANCE

could be administered to large samples to factorially analyse the nature of common constructs or a sentence completion procedure similar to Rawal et al. (2010) could investigate cognitive schemas associated with EA. In order to address retrospective bias in self-report measures, ambulatory devices such as hand-held computers could collect real time quantitative and/or qualitative data about EA in natural environments or in vivo laboratory techniques using real or imaginal exposure to emotion-provoking stimuli could be used to corroborate physiological indices of arousal with spoken verbal commentary. Finally, to further explore the nature and content of beliefs about emotions, a new measure containing a large pool of theoretically driven items could be developed and an exploration of its factor structure could ascertain the most meaningful clusters of beliefs about difficult emotions in relation to EA.

### **Conclusion**

Emotional Avoidance is now a well established construct in the field of emotion regulation and a review of literature suggests that its proximal psychological determinants include beliefs, judgements, and appraisals about the acceptability of negative emotions and fears about the physical, psychological and social consequences of tolerating internal distress.

### References

- Abramowitz, J. S., Lackey, G. R., & Wheaton, M. G. (2009). Obsessive-compulsive symptoms: The contribution of obsessional beliefs and experiential avoidance. *Journal of Anxiety Disorders, 23*, 160–166.
- Begotka, A. M., Woods, D. W., & Wetterneck, C. T. (2004). The relationship between experiential avoidance and the severity of trichotillomania in a nonreferred sample. *Journal of Behaviour Therapy and Experimental Psychiatry, 35*, 17–24.
- Berking, M., Neacsiu, A., Comtois, K. A., & Linehan, M. M. (2009). The impact of experiential avoidance on the reduction of depression in treatment for borderline personality disorder. *Behaviour Research and Therapy, 47*, 663–670.
- Berman, N. C., Wheaton, M. G., McGrath, P., & Abramowitz, J. S. (2010). Predicting anxiety: The role of experiential avoidance and anxiety sensitivity. *Journal of Anxiety Disorders, 24*, 109–113.
- Bloch, L., Moran, E. K., & Kring, A. M. (2009). On the need for conceptual and definitional clarity in emotion regulation research. In Kring, A. M. & Sloan, D. S. (Eds.), *Emotion Regulation and Psychopathology* (pp. 88-104). New York: Guilford Press.
- Boelen, P.A., Van den Bout, J. & Van den Hout, M.A. (2010). A prospective examination of catastrophic misinterpretations and experiential avoidance in emotional distress following loss. *Journal of Nervous and Mental Disease, 298*, 252-257.



## DETERMINANTS OF EMOTIONAL AVOIDANCE

- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. C., Guenole, N., Orcutt, H. K., Waltz, T., et al. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire-II: A revised measure of psychological flexibility and acceptance. *Behaviour Therapy, 42*, 676-688.
- Briggs, E. S., & Price, I. R. (2009). The relationship between adverse childhood experience and obsessive-compulsive symptoms and beliefs: The role of anxiety, depression, and experiential avoidance. *Journal of Anxiety Disorders, 23*, 1037-1046.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*, 822-848.
- Butler, G. & Surawy, C. (2004). Avoidance of affect. In Bennett-Levy, J., Butler, G., Fennell, M., Hackman, A., Mueller, M., & Westbrook, D. (Eds.), *Oxford Guide to Behavioural Experiments in Cognitive Therapy* (pp. 351-372). Oxford University Press.
- Calkins S.D. & Hill A. (2007). Caregiving influences on emerging emotion regulation: Biological and environmental transactions in early development. In Gross J. J. (Ed.), *Handbook of Emotion Regulation* (pp. 229-248). New York: Guilford Press.
- Campbell-Sills, L. & Barlow, D.H. (2007). Incorporating emotion regulation into conceptualization and treatment of anxiety and mood disorders. In J.J. Gross (Ed.), *Handbook of emotion regulation* (pp 542-560). New York: Guilford Press.
- Campbell-Sills, L., Barlow, D. H., Brown, T. A., & Hofmann, S. G. (2006). Acceptability and suppression of negative emotion in anxiety and mood disorders. *Emotion, 6*, 587-595.

## DETERMINANTS OF EMOTIONAL AVOIDANCE

- Campos, J.J., Frankel, C.B., & Camras, L. (2004). On the nature of emotion regulation. *Child Development, 75*, 340-345.
- Chapman, A. L., Gratz, K. L., & Brown, M. Z. (2006). Solving the puzzle of deliberate self-harm: The experiential avoidance model. *Behaviour Research and Therapy, 44*, 371-394.
- Davies, M. F. (2007). Irrational Beliefs and Unconditional Self-Acceptance. II. Experimental Evidence for a Causal Link between Two Key Features of REBT. *Journal of Rational-Emotive & Cognitive-Behaviour Therapy, 26*, 89-101.
- Eifert, G. H., & Heffner, M. (2003). The effects of acceptance versus control contexts on avoidance of panic-related symptoms. *Journal of Behaviour Therapy and Experimental Psychiatry, 34*, 293-312.
- Fergus, T. A., Valentiner, D. P., Gillen, M. J., Hiraoka, R., Twohig, M. P., Abramowitz, J. S., & McGrath, P. B. (2011). Assessing psychological inflexibility: The psychometric properties of the Avoidance and Fusion Questionnaire for youth in two adult samples. *Psychological Assessment, 24*, 402-408.
- Forsyth, J. P., Parker, J. D., & Finlay, C. G. (2003). Anxiety sensitivity, controllability, and experiential avoidance and their relation to drug of choice and addiction severity in a residential sample of substance-abusing veterans. *Addictive Behaviours, 28*, 851-870.
- Gamez, W., Chmielewski, M., Kotov, R., Ruggero, C., & Watson, D. (2011). Development of a Measure of Experiential Avoidance: The Multidimensional Experiential Avoidance Questionnaire. *Psychological Assessment, 23*, 692-713.

## DETERMINANTS OF EMOTIONAL AVOIDANCE

- Giorgio, J. M., Sanflippo, J., Kleiman, E., Reilly, D., Bender, R. E., Wagner, C. A., Liu, R. T., et al. (2010). An experiential avoidance conceptualization of depressive rumination: Three tests of the model. *Behaviour Research and Therapy, 48*, 1021–1031.
- Goldstone, E., Farhall, J., & Ong, B. (2011). Life hassles, experiential avoidance and distressing delusional experiences. *Behaviour Research and Therapy, 49*, 260-266.
- Gratz, K. L., Bornovalova, M. A., Delany-Brumsey, A., Nick, B., & Lejuez, C. (2007). A laboratory-based study of the relationship between childhood abuse and experiential avoidance among inner-city substance users: The role of emotional nonacceptance. *Behavior Therapy, 38*, 256–268.
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioural Assessment, 26*, 41–54.
- Gratz, K. L., Tull, M. T., & Gunderson, J. G. (2008). Preliminary data on the relationship between anxiety sensitivity and borderline personality disorder: The role of experiential avoidance. *Journal of Psychiatric Research, 42*, 550–559.
- Greco, L. A., Heffner, M., Poe, S., Ritchie, S., Polak, M., & Lynch, S. K. (2005). Maternal adjustment following preterm birth: Contributions of experiential avoidance. *Behaviour Therapy, 36*, 177–184.
- Gross, J.J., (2001). Emotion regulation in adulthood: timing is everything. *Current Directions in Psychological Science, 10*, 214–219.

## DETERMINANTS OF EMOTIONAL AVOIDANCE

- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85*, 348.
- Gross, J.J., & Thompson, R.A. (2007). Emotion regulation: Conceptual foundations. In J.J. Gross (Ed.), *Handbook of emotion regulation* (pp. 3-24). New York: Guilford Press.
- Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioural and cognitive therapies. *Behaviour therapy, 35*, 639–665.
- Hayes, S. C., Strosahl, K., & Wilson, K. (1999). *Acceptance and Commitment Therapy: Understanding and treating human suffering*. New York: Guilford Press.
- Hayes, S. C., Strosahl, K. D., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., Polusny, M., et al. (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record, 54*, 553-578.
- Hayes, S. C., & Wilson, K. G. (1994). Acceptance and commitment therapy: Altering the verbal support for experiential avoidance. *The Behaviour Analyst, 17*, 289.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioural disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64*, 1152-1168.
- John, O. P., & Gross, J. J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality, 72*, 1301-1333.

## DETERMINANTS OF EMOTIONAL AVOIDANCE

- John, O.P., & Gross, J.J. (2007). Individual differences in emotion regulation strategies: Links to global trait, dynamic, and social cognitive constructs. In J.J. Gross (Ed.), *Handbook of emotion regulation* (pp. 351-372). New York: Guilford Press
- Karekla, M., Forsyth, J. P., & Kelly, M. M. (2004). Emotional avoidance and panicogenic responding to a biological challenge procedure. *Behaviour Therapy, 35*, 725–746.
- Kashdan, T. B., Barrios, V., Forsyth, J. P., & Steger, M. F. (2006). Experiential avoidance as a generalized psychological vulnerability: Comparisons with coping and emotion regulation strategies. *Behaviour Research and Therapy, 44*, 1301–1320.
- Kashdan, T. B., Breen, W. E., Afram, A., & Terhar, D. (2010). Experiential avoidance in idiographic, autobiographical memories: Construct validity and links to social anxiety, depressive, and anger symptoms. *Journal of Anxiety Disorders, 24*, 528–534.
- Krause, E. D., Mendelson, T., & Lynch, T. R. (2003). Childhood emotional invalidation and adult psychological distress: The mediating role of emotional inhibition. *Child Abuse & Neglect, 27*, 199–213.
- Lang, P. J. (1979). A Bio-Informational Theory of Emotional Imagery. *Psychophysiology, 16*, 495–512.
- Leahy, R.L. (2002). A model of emotional schemas. *Cognitive & Behavioural Practice, 9*, 177-190.
- Leahy R. L. (2003). *Cognitive therapy techniques: A practitioner's guide*. New York: Guilford Press.

## DETERMINANTS OF EMOTIONAL AVOIDANCE

- Lee, J. K., Orsillo, S. M., Roemer, L., & Allen, L. B. (2010). Distress and avoidance in generalized anxiety disorder: exploring the relationships with intolerance of uncertainty and worry. *Cognitive Behaviour Therapy, 39*, 126–136.
- Linehan, M. M. (1993). *Skills Training Manual for Treatment of Borderline Personality Disorder*. New York Guilford Press.
- Luoma, J. B., & Hayes, S. C. (2003). Cognitive Defusion. In W. O'Donahue, J. E. Fisher, & S. C. Hayes (Eds.), *Empirically supported techniques of cognitive behavioural therapy: A step-by-step guide for clinicians* (pp.181-188). New York: Wiley.
- Manos, R. C., Cahill, S. P., Wetterneck, C. T., Conelea, C. A., Ross, A. R., & Riemann, B. C. (2010). The impact of experiential avoidance and obsessive beliefs on obsessive-compulsive symptoms in a severe clinical sample. *Journal of Anxiety Disorders, 24*, 700–708.
- Mayer, J. D. & Stevens, A. A. (1994) An emerging understanding of the reflective (Meta-) Experience Mood. *Journal of Research in Personality, 28*, 351-373.
- McHugh, R. K., & Otto, M. W. (2011). Domain-general and domain-specific strategies for the assessment of distress intolerance. *Psychology of Addictive Behaviours, 25*, 745-749.
- Mennin, D. S., Heimberg, R. G., Turk, C. L., & Fresco, D. M. (2002). Applying an emotion regulation framework to integrative approaches to generalized anxiety disorder. *Clinical Psychology: Science and Practice, 9*, 85–90.
- Mitmansgruber, H., Beck, T. N., & Schubler, G. (2008). “Mindful helpers”: Experiential avoidance, meta-emotions, and emotion regulation in paramedics. *Journal of Research in Personality, 42*, 1358–1363.

## DETERMINANTS OF EMOTIONAL AVOIDANCE

- Newman, M. G., Castonguay, L. G., Borkovec, T. D., Fisher, A. J., Boswell, J. F., Szkodny, L. E., & Nordberg, S. S. (2011). A randomized controlled trial of cognitive-behavioral therapy for generalized anxiety disorder with integrated techniques from emotion-focused and interpersonal therapies. *Journal of Consulting and Clinical Psychology, 79*, 171.
- Norberg, M. M., Wetterneck, C. T., Woods, D. W., & Conelea, C. A. (2007). Experiential avoidance as a mediator of relationships between cognitions and hair-pulling severity. *Behaviour Modification, 31*, 367–381.
- Polusny, M. A., Ries, B. J., Meis, L. A., DeGarmo, D., McCormick-Deaton, C. M., Thuras, P., & Erbes, C. R. (2011). Effects of parents' experiential avoidance and PTSD on adolescent disaster-related posttraumatic stress symptomatology. *Journal of Family Psychology, 25*, 220–229.
- Rawal, A., Park, R. J., & Williams, J. M. G. (2010). Rumination, experiential avoidance, and dysfunctional thinking in eating disorders. *Behaviour Research and Therapy, 48*, 851–859.
- Reiss, S. (1991). Expectancy model of fear, anxiety, and panic. *Clinical Psychology Review, 11*, 141–153.
- Roemer, E. & Orsillo, S. (2002). Expanding our conceptualization of and treatment for generalized anxiety disorder: Integrating mindfulness/acceptance-based approaches with existing cognitive-behavioural models. *Clinical Psychology: Science and Practice, 9*, 54-68.
- Roemer, L., Salters, K., Raffa, S., & Orsillo, S. M. (2005). Fear and avoidance of internal experiences in GAD: Preliminary tests of a conceptual model. *Cognitive Therapy and Research, 29*, 71-88.

## DETERMINANTS OF EMOTIONAL AVOIDANCE

- Rottenberg, J., & Gross, J. J. (2007). Emotion and emotion regulation: A map for psychotherapy researchers. *Clinical Psychology: Science and Practice, 14*, 323–328.
- Shahar, B., & Herr, N. R. (2011). Depressive symptoms predict inflexibly high levels of experiential avoidance in response to daily negative affect: A daily diary study. *Behaviour Research and Therapy, 49*, 676-681.
- Soriano, C. L., Valverde, M. R., & Martinez, O. G. (2004). A proposal for synthesizing verbal contexts in experiential avoidance disorder and acceptance and commitment therapy. *International Journal of Psychology and Psychological Therapy, 4*, 377-394.
- Spinhoven, P., Bamelis, L., Molendijk, M., Haringsma, R., & Arntz, A. (2009). Reduced specificity of autobiographical memory in Cluster C personality disorders and the role of depression, worry, and experiential avoidance. *Journal of Abnormal Psychology, 118*, 520-530.
- Stewart, S. H., Zvolensky, M. J., & Eifert, G. H. (2002). The relations of anxiety sensitivity, experiential avoidance, and alexithymic coping to young adults' motivations for drinking. *Behaviour Modification, 26*, 274–296.
- Tamir, M., Chiu, C. Y., & Gross, J. J. (2007). Business or pleasure? Utilitarian versus hedonic considerations in emotion regulation. *Emotion, 7*, 546-554.
- Taylor S., Zvolensky, M. J., Cox, B. J., Deacon, B., Heimberg, R. G., Ledley, D. R., Abramowitz, J. S., et al. (2007). Robust dimensions of anxiety sensitivity: Development and initial validation of the Anxiety Sensitivity Index-3. *Psychological Assessment, 19*, 176-188.
- Thompson, R. A., & Meyer, S. (2007). Socialization of emotion regulation in the family. In J. J. Gross (Ed.). *Handbook of Emotion Regulation* (pp. 249-268). New York: Guilford.



## DETERMINANTS OF EMOTIONAL AVOIDANCE

- Thompson, B. L., & Waltz, J. (2010). Mindfulness and experiential avoidance as predictors of posttraumatic stress disorder avoidance symptom severity. *Journal of Anxiety Disorders, 24*, 409–415.
- Tull, M. T., & Gratz, K. L. (2008). Further examination of the relationship between anxiety sensitivity and depression: The mediating role of experiential avoidance and difficulties engaging in goal-directed behaviour when distressed. *Journal of Anxiety Disorders, 22*, 199–210.
- Twohig, M. P., Hayes, S. C., & Masuda, A. (2006). Increasing willingness to experience obsessions: Acceptance and commitment therapy as a treatment for obsessive-compulsive disorder. *Behaviour Therapy, 37*, 3–13.
- Udachina, A., Thewissen, V., Myin-Germeys, I., Fitzpatrick, S., O’Kane, A., & Bentall, R.P. (2009). Understanding the relationships between self-esteem, experiential avoidance, and paranoia: Structural equation modeling and experience sampling studies. *Journal of Nervous and Mental Disease, 197*, 661–668.
- Valiente, C., Provencio, M., Espinosa, R., Chaves, C., & Fuentenebro, F. (2011). Predictors of subjective well-being in patients with paranoid symptoms: Is insight necessarily advantageous? *Psychiatry Research, 189*, 190-194.
- Watts, Jacqueline H. (2009). Working with emotion in palliative day care. *European Journal of Palliative Care, 16*, 188–190.
- Weinberger, D. A. (1990). The construct validity of the repressive coping style. In J. L. Singer (Ed.), *Repression and dissociation* (pp. 337-386). Chicago: University of Chicago Press.

## DETERMINANTS OF EMOTIONAL AVOIDANCE

- Westen, D. & Blagov, P. (2007). A clinical-empirical model of emotion regulation: From defences and motivated reasoning to emotional constraint satisfaction. In J. Gross (Ed.), *Handbook of emotion regulation* (pp 373-393). New York: Guilford.
- Wheaton, M. G., Berman, N. C., & Abramowitz, J. S. (2010). The contribution of experiential avoidance and anxiety sensitivity in the prediction of health anxiety. *Journal of Cognitive Psychotherapy, 24*, 229–239.
- Wheaton, M. G., Abramowitz, J. S., Franklin, J. C., Berman, N. C., & Fabricant, L. E (2011). Experiential avoidance and saving cognitions in the prediction of hoarding symptoms. *Cognitive Therapy and Research, 35*, 511-516.
- Zettle, R. D., Hocker, T. R., Mick, K. A., Scofield, B. E., Petersen, C. L., Song, H., & Sudarijanto, R. P. (2010). Differential strategies in coping with pain as a function of level of experiential avoidance. *The Psychological Record, 55*, 511-524.
- Zettle, R. D., Petersen, C. L., Hocker, T. R., & Provines, J. L. (2010). Responding to a Challenging Perceptual-Motor Task as a Function of Level of Experimental Avoidance. *The Psychological Record, 57*, 49-62.
- Zvolensky, M. J., & Leen-Feldner, E. W. (2005). Anxiety and stress vulnerability and substance problems: Theory, empirical evidence, and directions for future research. *Clinical Psychology Review, 25*, 707–712.
- Zvolensky, M. J., & Forsyth, J. P. (2002). Anxiety sensitivity dimensions in the prediction of body vigilance and emotional avoidance. *Cognitive Therapy and Research, 26*, 449–460.

Section B: The Development and Initial Validation of the Beliefs about Difficult Feelings Scale (BDFS)

Word Count: 8029

For submission to *Journal of Emotion and Cognition*

### **Abstract**

Chronic Emotional Avoidance (EA) has been conceptualised as a trans-diagnostic toxic process functionally associated with several forms of psychological distress. The proximal psychological determinants of EA may include maladaptive beliefs about the consequences of experiencing disturbing emotions and this study sought to develop the Beliefs about Difficult Feelings Scale (BDFS) to identify and measure individual differences in these beliefs. An initial pool of 90 items was administered online to a general population sample of 304 participants. Principal factor analysis was applied to data yielding a six-factor solution relating to the following clusters of beliefs: Catastrophic Beliefs, Emotions are Useful, Negative Evaluation from Others, Emotions are Exhausting/Frustrating, Emotions are Transient and Emotions are Pointless. The psychometric properties of the final 29-item BDFS are promising. The new measure demonstrated good internal consistency, test-retest reliability and construct validity, however further psychometric evaluation is needed on new samples to verify these preliminary findings.

## **Introduction**

Emotions serve an important adaptive purpose in our lives by directing attention to threatening or rewarding internal and external information (Tamir, Chiu & Gross, 2007). Emotional problems characterise over 75% of diagnostic categories in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; Barlow, 2000). Emotion regulation includes attempts to control and avoid feelings (Gratz & Roemer, 2004) and may be maladaptive when benefits of short term changes (e.g. temporary reduction in distress) lead to long-term costs (e.g. substance abuse; Werner & Gross, 2010). Emotional Avoidance (EA), simply defined as attempts to avoid experiencing distressing feelings, can become a harmful strategy when it is applied too rigidly preventing effective responses to emotional stimuli (Giorgio et al., 2010). Moreover, EA is often reinforced by initial reductions in distress, however chronic avoidance of emotions paradoxically increases their severity, frequency and accessibility, causing more distress in the longer-term (e.g. Gratz, Tull, & Gunderson, 2008).

A substantial body of literature now supports the conceptualisation of EA as a trans-diagnostic toxic process functionally associated with a diverse range of psychological problems (Campbell-Sills, Barlow, Brown & Hofmann, 2006). Authors from different theoretical backgrounds have however provided idiosyncratic explanations of the origins of EA and different tools to measure the concept. Although EA is relevant in most psychological traditions, this paper will focus on the Acceptance and Commitment Therapy

(ACT) framework and models of Cognitive Behaviour Therapy (CBT) which have both produced substantial literature on EA's theoretical and empirical determinants.

### **Acceptance and Commitment Therapy**

In ACT literature 'emotional avoidance' is used interchangeably with the term "experiential avoidance" (Chapman, Gratz & Brown, 2006) defined as the unwillingness to remain in contact with unwanted internal events (emotions, bodily sensations, thoughts, memories etc.) leading to conscious and unconscious attempts to alter or escape them (Hayes, Wilson, Gifford, Follette & Strosahl, 1996). It is suggested that internal aversive states cannot be evaded by avoiding only the external situations that lead to them because internal human language is bidirectional and we symbolically interpret events *and* the emotions that go along with them (Hayes & Strosahl, 2004). This leads to cognitive fusion where thoughts or images from the past become fused with reality and information about the world is then obtained from this revised and idiosyncratic internal reality (Veale, 2008). Excessive entanglement with the content of private events are interpreted as if they were literally true (e.g. "My thoughts and feelings mess up my life"; "The bad things I think about myself must be true") and give rise to experiential avoidance (e.g. "I push away thoughts and feelings that I don't like"; "I stop doing things that are important to me whenever I feel bad"). The acceptance of verbal reasons as valid explanations for behaviour is a ubiquitous process learned early in life and reinforced by the "social-verbal community" and culturally sanctioned assumptions that painful thoughts and feelings are somehow bad and should be regulated or controlled at all costs (Greco et al., 2008; Hayes & Wilson, 1994).

### **Cognitive Behaviour Therapy**

The concept of avoidance is extensive in cognitive behavioural conceptualisations of psychological distress. For example in Ehlers and Clark's (2000) model of post-traumatic stress disorder (PTSD) internal and external stimuli are avoided because of excessively negative appraisals or beliefs such as "I am going mad" or "The next disaster will strike soon". Their endorsement maintains a sense of severe and current threat and prevents emotionally processing traumatic events. Moreover, it is suggested that specific emotional responses in PTSD depend on particular appraisals often resulting in further avoidance, for example appraisals related to perceived dangers such as "nowhere is safe" lead to fear, or appraisals concerning personal responsibility or "it was my fault" lead to guilt.

Beliefs individuals hold about which emotions are acceptable or tolerable and which are not (e.g. "sadness is bad") are particularly important in psychopathology and greatly influence emotional avoidance (Werner & Gross, 2010). Appraisals about the acceptability of emotions lead to emotions about emotions, or meta-emotional appraisals (e.g. "I hate myself when I am depressed"; Mitmansgruber, Beck, Hofer & Schuber, 2009). Individuals may also engage in avoidance behaviours because they fear an imagined consequence of tolerating internal distress ("If I lose control of my emotions in front of others, they will think less of me"; Rimes & Chalder, 2009).

If EA is indeed a trans-diagnostic toxic process driven by internal interpretations, appraisals, judgements or beliefs about the perceived acceptability or feared consequences of experiencing aversive emotions, then it may be important to measure these proposed

causes of EA both to aid clinical intervention and to further develop and test theoretical models.

### **Measures of Emotional Avoidance**

Although there are numerous scales measuring different types of emotional regulation and related concepts such as thought suppression, distress intolerance, coping styles, anxiety sensitivity, rumination etcetera, this paper will focus on indices which directly purport to measuring avoidance.

#### **Acceptance and Action Questionnaire (AAQ)**

The Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004), described as a context free global self-report measure of EA (Kashdan, Breen, Afram & Terhar, 2010) is by far the most common scale in ACT literature. Although robust in terms of its single component factor structure and moderate effect size in predicting a wide-range of quality of life outcomes ( $r = .42$ ; Hayes, Luoma, Bond, Masuda & Lillis, 2006), the AAQ has demonstrated sub-optimal internal consistency (Cronbach's alpha  $< 0.7$ ) in a number of studies (e.g. Cribb, Moulds & Carter, 2006; Mitmansgruber et al., 2009; Polusney et al., 2011). The AAQ's construct validity has also been criticised with some authors suggesting that it may measure negative affect rather than EA, it includes too many theoretically distinct concepts (e.g. cognitive activities related to avoidance, beliefs and fears about emotions, avoidant behaviours; Baer, Walsh & Lykins, 2009; Giorgio et al., 2010) and is too specifically theoretically aligned with ACT (Bond et al., 2010; Chawla & Ostafin, 2007). Although some items in the AAQ-II (Bond et al., 2010) allude to beliefs or feelings about difficult internal experiences: *"It is OK if I remember something unpleasant"*, *"I'm afraid of*



*my feelings*”, these are broad statements and do not assess any potential feared consequences of tolerating distress.

### **Cognitive-Behavioural Avoidance Scale (CBAS)**

Ottenbreit and Dobson (2004) developed the CBAS as a multidimensional avoidance measure and following factor analyses found that behavioural versus cognitive and non-social versus social dimensions emerged as important components. The CBAS includes the subscales Behavioural Social (e.g. *“I avoid attending social activities”*), Behavioural Nonsocial (e.g. *“I avoid trying new activities that hold the potential for failure”*), Cognitive Social (e.g. *“I just wait out tension in my relationship hoping that it will go away”*), and Cognitive Nonsocial (e.g. *“I distract myself when I start to think about my work/school performance”*). Although subscales have not been labelled as emotional avoidance, this construct does appear to be included, for example *“In order to avoid feelings of disappointment, I just try not to get too serious about work/school”*. Although some items related to avoidant behavioural strategies are included, the CBAS does not assess why these strategies might be utilised in the first place. Since publication, the scale has appeared in a growing number of investigations and demonstrated both sufficient (Carvahlo & Hopko, 2011; Moulds et al., 2007) and inadequate (Dumitrescu, Toma & Lascu, 2010; Hernandez-Guzman et al., 2009) internal reliability. Moreover, all studies have utilised non clinical student samples further limiting the CBAS’s generalisability and construct validity.

### **Emotional Processing Scale (EPS)**

The EPS (Baker, Thomas, Thomas & Owens, 2007) aimed to measure several facets of emotional processing including awareness, the labelling and linking of emotions to precipitating events, fear, dislike and poor understanding of emotions, and constructs related to experiencing positive and negative feelings. Authors report insufficient Cronbach's alphas of .42 - .81 for subscales in their development study and although the EPS contains an 'avoidance' subscale, it focuses mainly on behavioural avoidance and does not assess beliefs about tolerating difficult emotions. Moreover, the EPS has not yet been made fully available for use, commercially or otherwise.

### **Difficulty in Emotion Regulation Scale (DERS)**

The DERS (Gratz & Roemer, 2004) assesses patterns of emotion regulation and although it contains a subscale measuring nonacceptance of emotional responses and some beliefs about difficult emotions in its 'strategies' subscale (e.g. *"When I'm upset, I believe I will remain that way for a long time"*) the DERS is not a 'pure' measure of beliefs. To its credit, the scale also contains items pertaining to meta-emotions such as *"When I'm upset, I feel guilty for feeling that way"* and *"When I'm upset, I start to feel very bad about myself"* but only deals with one emotion: "feeling upset". The DERS has demonstrated high internal consistency overall and for individual subscales (Fox, Hong & Sinha, 2008; Gratz & Roemer, 2004) and appears to be significantly related to measures of psychological symptoms (Salters-Pedneault, Roemer, Tull, Rucker, & Mennin, 2006; Tull, Barrett, McMillan, & Roemer, 2007; Tull & Roemer, 2007).

### **Trait-Meta Mood Scale (TMMS)**

The TMMS (Salovey, Mayer, Goldman, Turvey & Palfai, 1995) has demonstrated good psychometric properties (Fitness & Curtis, 2005; Leonard & Harvey, 2007) and measures emotional intelligence using three subscales: attention to feelings *“I don’t usually care much about what I’m feeling”*, clarity of emotional experience *“I am often aware of my feelings on a matter”* and the repair of unwanted emotions *“No matter how badly I feel, I try to think about pleasant things”*. Although it contains some items which appear to tap beliefs about emotions including *“Feelings give direction to life”* and *“I believe in acting from the heart”*, these statements are general and don’t specifically pertain to distressing emotions.

### **Beliefs about Emotions Scale (BES)**

The BES (Rimes & Chalder, 2010) is the only scale that directly purports to measuring beliefs about emotions and contains twelve items describing one’s own and other people’s attitudes towards feelings. Some statements however do not seem directly related to emotional experience: *“I should be able to cope with difficulties on my own without turning to others for support”*; *“If I show signs of weakness then others will reject me”*; *“If I am having difficulties it is important to put on a brave face”*, and other items refer to thoughts rather than emotions: *“It is stupid to have miserable thoughts”*; *“It is a sign of weakness if I have miserable thoughts”*. Nevertheless, the BES does address some feared consequences of tolerating difficult feelings: *“If I lose control of my emotions in front of others, they will think less of me”*; *“It would be a sign of weakness to show my emotions in public”*. Although the BES has demonstrated good internal consistency in a validation sample (Rimes & Chalder, 2010), it is a relatively new instrument and as such has not yet been extensively utilised in research.

### **Conclusions about existing questionnaires**

Although these scales measure some aspects of the construct of emotional avoidance, none adequately address its proximal cognitive determinants, that is to say specific cognitively fused symbolic interpretations concerning the experience of distressing emotional events (Veale, 2008), culturally sanctioned attitudes towards feelings (Hayes & Wilson, 1994), cognitive appraisals about the acceptability of painful emotions (Werner & Gross, 2010), meta-emotional appraisals or feelings about feelings (Mitmasgruber et al., 2009) or the feared behavioural, psychological or social consequences of tolerating emotional distress (Ehlers & Clark, 2000; Ottenbreit & Dobson, 2004).

### **Framework for the construction of the Beliefs about Difficult Feelings Scale**

Some people respond to the onset of emotions by appraising them as intolerable and may subsequently engage in counterproductive emotion regulation strategies (Hofmann & Kashdan, 2009). The direct or indirect modification of beliefs concerning difficult emotions and the exploration or more adaptive appraisals form a major component of therapy in most therapeutic traditions including CBT (Leahy, 2003), Rational Emotive Behaviour Therapy (REBT; Davies, 2008), Dialectical Behaviour Therapy (Linehan, 1993), ACT (Hayes, Strosal, & Wilson, 1999) and mindfulness-based interventions (Brown & Ryan, 2003).

If beliefs about difficult feelings drive emotional avoidance, then what is needed is a valid measure of them including beliefs about the possible physical, behavioural, psychological and social consequences of engaging with emotional experience, beliefs regarding other people's perceptions of or reaction to one's own emotions, and positive or

## DEVELOPMENT OF THE BDFS

adaptive beliefs about the utility or value of emotional experiences. A tool examining the nature and extent of these beliefs has both academic value in distinguishing different types of cognitive content to add to existing theory concerning the possible causes of EA and to the development and application of therapy techniques to enhance the focus and efficacy of psychological treatment, for example by aiding case assessment and formulation.

### **Aims**

This study aimed to create a global, flexible and model-independent measure of beliefs about difficult emotions that could be utilised in a variety of contexts with a diverse range of clinical and non-clinical samples. The new scale was expected to measure both general beliefs about the experience of difficult feelings *and* be easily adaptable for use with specific emotions (e.g. anxiety, fear). Furthermore, the scale should demonstrate theoretical uniqueness and sufficient reliability and validity.

### **Hypotheses**

We planned to develop a new measure: The Beliefs about Difficult Feelings Scale (BDFS) by conducting exploratory analyses of a large pool of items with no a priori constraints or predictions regarding the number of components that would emerge or their contents. Items were however derived from clinical theory and it was hypothesised that multiple reliable components reflecting distinct relevant constructs *would* emerge from statistical analyses and that positive and negative items would cluster separately.

The BDFS should moderately correlate ( $r \approx 0.3 - 0.7$ ) with similar scales but in order to evidence conceptual uniqueness, correlations should not be so high as to overlap with existing measures ( $r > 0.8$ ). Given that the BSDF purports to measure relatively stable

## DEVELOPMENT OF THE BDFS

beliefs about emotions, it was hypothesised to demonstrate adequate test-retest reliability and it was hoped that the new scale would demonstrate adequate construct validity by correlating with measures of psychological distress.

## Method

### Design

A pilot Beliefs about Difficult Feelings Scale (BDFS-P) with a large item pool was developed to capture potential beliefs about tolerating distressing emotions in the general population. The BDFS-P and other standardised measures were administered online using a cross-sectional survey strategy and the BDFS-P was re-administered to a sub-sample after 4-8 weeks. Data were subjected to factor analyses to establish the most appropriate items for inclusion in a final version of the scale. The internal consistency, test-retest reliability and construct validity of the new scale were then examined.

### Participants

A total of 306 individuals completed the on-line survey. Two participants' data were excluded due to missing values and one individual completing the survey twice. 304 participants (62 men, 242 women) with a mean age of 35 years (SD = 12, range = 18 to 73) comprised the final sample.

Table 1

#### *Participant Demographics*

<i>N=304</i>	<i>Percentage of Sample</i>
<b><i>Ethnicity</i></b>	
<i>Caucasian</i>	76%
<i>Mixed</i>	7%
<i>Other</i>	11%

## DEVELOPMENT OF THE BDFS

---

<i>Undisclosed</i>	6%
<b><i>Country of Residence</i></b>	
<i>Great Britain</i>	63%
<i>United States of America</i>	20%
<i>Other</i>	17%
<b><i>Highest Educational Achievements</i></b>	
<i>None of the following</i>	11%
<i>GCSE or 'O' Levels</i>	3%
<i>Diploma or Vocational Qualification</i>	10%
<i>'A' Levels</i>	9%
<i>Undergraduate Degree</i>	29%
<i>Post-Graduate Qualification</i>	38%

---

54.3% of participants reported having experienced a psychological problem or addiction at some point in their lives of which roughly half reported depression, a quarter reported an anxiety disorder and the remainder disclosed a variety of problems. 41% of the sample reported having received treatment for their problem, the most common of which was medication *and* talking therapy. Furthermore, 25% of respondents stated they were currently experiencing a psychological problem or addiction and 16% of the sample were currently receiving treatment. Appendix A contains a completed analysis of participant characteristics.

### **Procedure**

A dedicated web-site and online survey were created using a Drupal Contents Management System: <http://www.emotionsmatter.org.uk> (Appendix B). A team of non-psychologists including two service users from the Salomons Advisory Group of Experts by Experience (SAGE) were consulted on its contents. Potential participants were recruited



## DEVELOPMENT OF THE BDFS

though online psychological research sites (e.g. <http://psych.hanover.edu/research/exponnet.html>) and social networking media (Facebook & Twitter) by posting advertisements (Appendix C) on special interests pages (e.g. PsychCentral, Anxiety UK, Depression Alliance). Participants were fully informed about the purpose of the study, the potentially distressing subject matter, and the confidentiality of their data (Appendix D). Respondents verified that they were over the age of 18 and gave informed consent. Providing an e-mail address was optional and participants chose whether to be entered into a prize draw to receive a £50 Amazon voucher and/or be contacted in 4-8 weeks to complete a short re-test (BDFS-P) receiving an additional prize draw entry.

### **Measures**

#### ***The Beliefs about Difficult Feelings Scale-Pilot (BDFS-P):***

To explore a range of possible beliefs about difficult feelings, a large pool of 83 items (54 negative, 29 positive) were initially developed by the research team (Appendix S). Statements were designed to follow the stem “If I allow myself to experience a difficult emotion without doing anything to avoid or stop it...” and described beliefs about possible physical (I will become exhausted), behavioural (I will end up using alcohol, drugs, or food in excess), psychological (I will feel a failure), and social (I will damage my relationships) consequences of tolerating emotional distress. Negative items indexed negative beliefs ‘The feelings will get worse and worse’ and positive items pertained to positive beliefs ‘It will allow others to help me better’.

The final version of the BDFS-P contained 90 statements (60 negative, 30 positive; Appendix E). Instructions were: *To answer the following questions, please think about the*

## DEVELOPMENT OF THE BDFS

*types of feelings/emotions that are the most difficult for you. Since people are different, there are no right or wrong answers to these statements. All of the statements start with "If I allow myself to experience a difficult emotion without doing anything to avoid or stop it..." and you are asked to rate how much you agree with them. Please base your answers on what has been true for you over the past two weeks.*

Negative items were scored according to Likert responses (1=Agree, 2=Agree Slightly, 3=Neutral, 4=Disagree Slightly, 5=Disagree), and positive items were reverse scored. Higher scores indicated the endorsement of more adaptive beliefs about difficult feelings.

### ***Standardised Measures***

Existing measures of similar concepts were administered to all participants in order to test the construct validity of the BDFS.

*The Acceptance and Action Questionnaire-II (AAQ-II; Bond et al., 2010; Appendix F)* has 10-items and is reportedly the current standard used to measure experiential avoidance in adults (Schmalz & Murrell, 2010). Items include the tendency to avoid negative experiences, view thoughts as literally true and the ability to choose how to overtly behave in the face of internal distress (Bond et al., 2010). The scale generated internal consistencies of .78 to .88 from six data sets (Bond et al., 2010) and required respondents to rate the applicability of each statement on a Likert scale (1 = *never true* to 7 = *Always true*). Higher total scores indicate greater difficulties. The AAQ-II's internal consistency in this sample was .91.

## DEVELOPMENT OF THE BDFS

*The Difficulties in Emotion Regulation Scale* (DERS; Gratz & Roemer, 2004; Appendix G) is a 36-item multidimensional measure assessing characteristic emotion regulation patterns. It is made up of six theoretically derived subscales: *Nonacceptance of Emotional Responses* (Nonacceptance), *Difficulties Engaging in Goal-Directed Behaviour* (Goals), *Impulse Control Difficulties* (Impulse), *Lack of Emotional Awareness* (Awareness), *Limited Access to Emotion Regulation Strategies* (Strategies), and *Lack of Emotional Clarity* (Clarity). The DERS contains items specifically related to experiencing distressing emotions (e.g. 26 items begin with “*When I’m upset...*”). Respondents rate how often each statement applies to them (e.g. *Almost never; About half of the time*) on a 5 point Likert scale with higher scores indicating greater difficulties. Gratz and Roemer (2004) report good overall internal consistency ( $\alpha = .93$ ) and for subscales ( $\alpha > .80$ ). In this sample, total internal consistency was .96 and  $\alpha$  ranged from .84 to .92 for subscales.

*The Beliefs about Emotions Scale* (BES; Rimes & Chalder, 2010; Appendix H) is a 12-item measure representing beliefs about the unacceptability of experiencing and expressing emotions. It was chosen as a convergent measure and requires respondents to rate their agreement with statements on a 7-point Likert scale (1 = *Totally Disagree* to 7 = *Totally Agree*) with higher scores indicating maladaptive beliefs. Authors reported good internal consistency ( $\alpha = .91$ ) and in the current sample  $\alpha = .90$ .

*The Trait Meta-Mood Scale* (TMMS; Salovey et al., 1995; Appendix I) is a 30-item measure of emotional intelligence assessing the ability to reflect upon and manage emotions. It is comprised of 3 subscales: *attention to feelings* (Attention), *clarity of experience of feelings* (Clarity), *repair of emotions* (Repair), and respondents rate their

## DEVELOPMENT OF THE BDFS

agreement with statements scored on a 5 point Likert scale (1 = *Strongly disagree* to 5 = *Strongly agree*). Lower scores indicate greater difficulty. The TMMS focuses on meta-cognitions about mood states and it was hypothesised that its subscales would converge differentially with BDFS subscales. Authors report adequate consistency overall ( $\alpha = .83$ ) and for individual subscales ( $\alpha > .80$ ). In this sample total consistency was .89 with  $\alpha$  ranging from .81 to .88 for subscales.

*The Depression Anxiety and Stress Scales-21* (DASS-21; Henry & Crawford, 2005; Appendix J) is a 21-item measure with three subscales: *depression*, *anxiety*, and *stress*, and was chosen because of its brevity in indexing common psychological symptoms and problems. Respondents rate each item on a 4-point scale (0 = *Did not apply to me at all* to 3 = *Applied to me very much, or most of the time*) with higher scores indicating more symptoms of distress. Authors report  $\alpha$  ranging from .88 to .93 for subscales and .93 overall. In this sample, overall consistency was .95 with  $\alpha$  ranging from .87 to .93 for subscales.

*The Five-Facet Mindfulness Questionnaire* (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Appendix K) assesses a general tendency to be mindful in everyday life, with items rated on a 5-point Likert scale (1 = *never or very rarely true* to 5 = *always true*). Only the *nonjudging* (e.g. *'I believe some of my thoughts are abnormal or bad and I shouldn't think that way'*) and *nonreactivity* (e.g. *'In difficult situations, I can pause without immediately reacting'*) subscales were utilised as it was hypothesised that these dimensions would show convergent associations with the BDFS. Higher scores indicate less judgement of and reactivity to emotions. Neuser (2010) reported Cronbach's  $\alpha$  of .93 and .86

respectively. In this sample  $\alpha$ 's were insufficient (.66 and .62) and on this basis the FFMQ subscales were excluded from further analyses.

### ***Supplementary Information***

In addition to demographic information participants could provide optional detail regarding their experience of and treatment for current psychological or addiction problems. Respondents chose from predetermined lists of problems and treatments to answer these questions.

### **Ethics**

The British Psychological Society's Code of Human Research Ethics (BPS, 2011) was consulted and the Salomons Applied Psychology Ethics Committee granted full ethical approval for this study (Appendix L).

### **Data Analysis**

A sample size of 300 is thought appropriate for factor analysis (Field, 2009) and following Fabrigar, Wegener, MacCallum and Strahan's (1999) guidance, a principal components methodology was applied to BDFS-P data for item reduction and component extraction. The scale's final component structure was verified by repeating this procedure with the final item list. To ascertain internal consistency, Cronbach's alphas were calculated for total and subscales scores. Estimates of the BDFS's construct validity were established by calculating correlations with related questionnaires and a measure of psychological symptoms. BDFS test-retest reliability was computed using a sub-sample of 99 participants and an independent sample t-test was applied to explore differences in

## DEVELOPMENT OF THE BDFS

BDFS scores between participants who self-reported psychological/addiction problems and those who did not.

## Results

### Difficult Emotions

Before completing the BDFS-P, participants were asked “Which feelings/emotions do you find the most difficult to experience? Please choose as many as apply.” This question was designed to gather information and to provide participants with a frame to respond to BDFS items. Respondents chose an average of 4.2 emotions (standard deviation = 2.3; see Figure 1).

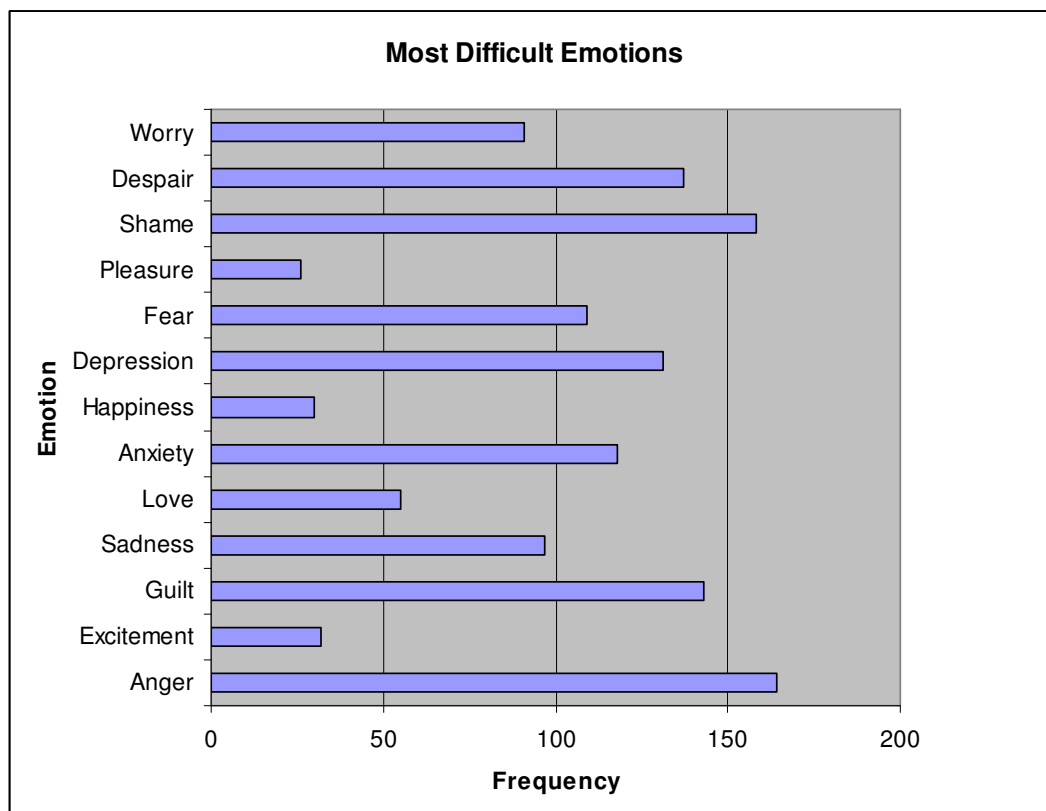


Figure 1: Emotions participants found most difficult to experience.

### **BDFS-P: Preliminary Analyses**

Before conducting factor analysis on the BDFS-P, the Kaiser-Meyer-Olkin (KMO) measure, Bartlett's test of sphericity and values in the anti-image correlation matrix were examined to ascertain sampling adequacy (Dzuiban & Shirkey, 1974; Kaiser & Rice, 1974). KMO was greater than 0.9, Bartlett's test was significant ( $p < .001$ ) and all anti-image values were  $> 0.9$  indicating "marvellous" sampling (Field, 2000). Next, the response distribution for each of the 90 items was checked for excessive skewness and kurtosis (Kendall & Stuart, 1958) and none of items were excluded on this basis. All items had communalities greater than 0.5, therefore all were included in factor analyses (Farbigar et al., 1999).

### **BDFS-P: Principal Components Analysis**

Following Baker et al. (2007), the associations among the 90 BDFS-P items were examined via a principal components analysis using an oblique (promax) rotation with Kaiser normalisation, as it was expected that components would be related to one another. According to the Kaiser-Guttman criterion of eigenvalues  $> 1.00$ , the initial solution yielded 12 principle components which together explained 70% of the variance (Appendix M). Guadagnoli and Velicer (1988) suggest that reliable factors should contain four or more loadings, hence a six factor solution was chosen as factors 7-12 contained fewer than four items. Moreover, the items contained within the first six components made good theoretical sense. To achieve a good balance between the length of the total scale and ensuring each component was adequately represented, it was decided that the six highest loading items per component would be chosen for the final version of the BDFS. All retained items had a loading greater than 0.5. Items with loadings greater than 0.4 onto



DEVELOPMENT OF THE BDFS

more than one factor were excluded. This procedure yielded a final scale with 29 items (6 items in components 1, 2, and 3; 4 items in components 4 and 5; 3 items in component 6).

Table 2 is a pattern matrix of the final 29 item BDFS showing loadings of items onto individual components (higher loadings suggest better component representation).

Table 2

*Results of a Principal Components Analysis of the 29 item BDFS*

<b>Pattern Matrix</b>						
<i>Factors, Items and Internal Consistency (Cronbach's <math>\alpha</math>)</i>	<i>Component Number</i>					
	1	2	3	4	5	6
<b>Factor 1: Catastrophic Beliefs (<math>\alpha = .94</math>)</b>						
N4: <i>I will go mad.</i>	0.92					
N5: <i>I will have a breakdown.</i>	0.90					
N52: <i>I will fall apart.</i>	0.85					
N50: <i>I will sink to the bottom of a pit of despair.</i>	0.89					
N3: <i>Something terrible will happen.</i>	0.84					
N20: <i>I will become completely hopeless.</i>	0.92					
<b>Factor 2: Emotions are Useful (<math>\alpha = .95</math>)</b>						
P7: <i>It will help me grow as a person.</i>		0.95				
P15: <i>It will help me in the long-term.</i>		0.90				
P29: <i>It will help me to heal from difficult experiences.</i>		0.79				
P20: <i>It will help me work through problems better.</i>		0.76				
P25: <i>It will help me to work through them.</i>		0.80				

---

P18: <i>I will become a stronger person.</i>	0.75	
<b>Factor 3: Negative Evaluation from Others (<math>\alpha = .92</math>)</b>		
N19: <i>I will embarrass myself.</i>	0.87	
N48: <i>I will feel ashamed.</i>	0.84	
N37: <i>Other people will judge me negatively.</i>	0.85	
N38: <i>I will feel humiliated.</i>	0.86	
N12: <i>Other people will discover what a bad person I am.</i>	0.64	
N49: <i>Other people will think I am weak.</i>	0.77	
<b>Factor 4: Emotions are Exhausting/Frustrating (<math>\alpha = .85</math>)</b>		
N17: <i>I will become exhausted.</i>	0.91	
N27: <i>I will become emotionally exhausted.</i>	0.88	
N28: <i>I will become highly frustrated.</i>	0.62	
N11: <i>I will feel unwell.</i>	0.59	
<b>Factor 5: Emotions are Transient (<math>\alpha = .85</math>)</b>		
P22: <i>The feelings will be better by themselves.</i>	0.94	
P24: <i>The feelings will die down over time.</i>	0.87	
P17: <i>The feelings will work themselves out.</i>	0.73	
P12: <i>The feelings will pass.</i>	0.60	
<b>Factor 6: Emotions are Pointless (<math>\alpha = .86</math>)</b>		
N45: <i>It will be a waste of energy.</i>	0.93	
N6: <i>It will be a waste of time.</i>	0.85	
N15: <i>It will be pointless.</i>	0.79	

---

---

 Items preceded by labels (e.g. N45, P12)

 Rotation Method: Promax with Kaiser Normalization (Rotation converged in 7 iterations).
 

---

### Confirmatory Factor Analysis

To test the factor structure of the final BDFS and obtain item and component loadings, the above procedure was repeated for the 29 item version after checking that all criteria in preliminary analyses were met. An examination of the pattern matrix following an oblique promax rotation with Kaiser normalisation yielded 6 clean components (Table 2) which together explained 75% of the total variance (Table 3). This factor structure was verified using a direct oblimin oblique rotation with Kaiser normalisation and this procedure yielded the same 6 component solution lending further credibility to the scale's factor structure.

Table 3

*Variance explained by individual components and total BDFS scale*

<i>Component Number</i>	<i>Initial Eigenvalues and Extraction Sums of Squared Loadings</i>			<i>Rotation Sums of Squared Loadings</i>
	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>	
1	11.517	39.713	39.713	6.943
2	4.431	15.278	54.991	8.789
3	2.002	6.904	61.895	8.457
4	1.456	5.022	66.916	6.382
5	1.235	4.260	71.177	5.498
6	1.090	3.758	74.935	5.435

---

### **Internal Consistency**

The BDFS demonstrated excellent overall internal consistency (Cronbach's  $\alpha = .94$ ) and each of the individual six subscales were also found to be highly internally consistent ( $\alpha > .85$ ; Table 2).

### **Component Structure**

The 6 factors comprising the BDFS were highly interpretable and may reflect different clusters of beliefs about the consequences of staying with difficult feelings. Factor 1 explained the largest proportion of the variance of the total scale (40%; Table 3), comprised catastrophic predictions of what might happen if feelings are fully experienced such as *'I will go mad'* or *'Something terrible will happen'* and was labelled 'Catastrophic Beliefs'. Factor 2 was labelled 'Emotions are Useful' as all items pertained to ways in which emotions may provide valuable insights for personal growth and emotional learning such as *'It will help me work through problems better'* and *'I will become a stronger person'*. Factor 3 contained three items directly pertaining to other people including *'Other people will discover what a bad person I am'*, *'Other people will think I am weak'* and three items related to others witnessing emotional distress such as *'I will embarrass myself'* and *'I will feel humiliated'* and hence was labelled 'Negative Evaluation from Others'. Factor 4 consisted of 4 negative items including *'I will become emotionally exhausted'* and *'I will become highly frustrated'* and was labelled as 'Emotions are Frustrating/Exhausting'. Factor 5 was made up of 4 highly related positive items including *'The feelings will work themselves out'* and *'The feelings will pass'* resulting in the label 'Emotions are Transient'.

## DEVELOPMENT OF THE BDFS

Finally Factor 6 also contained highly related items such as *'It will be a waste of time'* and *'It will be pointless'* suggesting that dwelling on feelings wastes psychological resources and was labelled 'Emotions are Pointless'.

### Gender Differences

There were no significant differences between the mean scores for men (Mean: 96.7, SD: 23.8) and women (Mean: 93.0, SD: 24.1) on BDFS total or individual subscale scores (Appendix N) with the exception of *Emotions are Exhausting/Frustrating*. Men (Mean: 11.7, SD: 4.6) scored significantly higher than women (Mean: 10.1, SD: 4.5;  $t = 2.39, p < .05$ ) suggesting they found difficult feelings more exhausting and frustrating.

### Internal Correlations

Correlations between BDFS subscales were calculated to provide information about interrelationships between components.

Table 4

*Correlations between internal subscales of the BDFS*

	<i>Catastrophic Beliefs</i>	<i>Emotions are Useful</i>	<i>Negative Evaluation from Others</i>	<i>Emotions are Exhausting/Frustrating</i>	<i>Emotions are Transient</i>	<i>Emotions are Pointless</i>
<i>Catastrophic Beliefs</i>	1					
<i>Emotions are Useful</i>	.277	1				

DEVELOPMENT OF THE BDFS

<i>Negative Evaluation from Others</i>	.712	.287	1			
<i>Emotions are Exhausting/Frustrating</i>	.616	.246	.617	1		
<i>Emotions are Transient</i>	.391	.549	.315	.277	1	.
<i>Emotions are Pointless</i>	.440	.366	.426	.522	.203	1
<i>BDFS</i>	.837	.624	.824	.751	.588	.646
<i>TOTAL</i>						

Bivariate Pearson's *r* correlations were calculated for all subscales of the BDFS (Table 4) and all correlations were highly significant ( $p < .001$ ) for two-tailed hypotheses. Following Cohen's (1988) guidelines, all individual subscale scores were strongly correlated ( $r > .5$ ) with total BDFS scores.

### Test-Retest Reliability

Test-retest reliability was based on a subsample of 99 participants and calculated after a period of four to eight weeks. The correlation coefficient for the entire scale was high at .79. Test-retest reliabilities for subscales were as follows: .78 for *Catastrophic Beliefs*, .68 for *Emotions are Useful*, .73 for *Negative Evaluation from Others*, .62 for *Emotions are Exhausting/Frustrating*, .64 for *Emotions are Transient*, and .68 for *Emotions are Pointless*.

DEVELOPMENT OF THE BDFS

**Construct Validity**

To provide data on the construct validity of the BDFS, correlations between total and individual subscales scores on the BDFS and related measures were computed (Table 5).

Table 5

*Correlations between the BDFS and existing scales*

	<i>Catastro- phic Beliefs</i>	<i>Emotions are Useful</i>	<i>Negative Evaluation from Others</i>	<i>Emotions are Exhausting / Frustratin g</i>	<i>Emotions are Transient</i>	<i>Emotions are Pointless</i>	<i>BDFS Total</i>
TMMS <i>Attention to Feelings</i>	.203***	.306***	.195**	.116*	.116*	.368***	.300***
TMMS <i>Clarity of experience of Feelings</i>	.497***	.276***	.460***	.339***	.206***	.252***	.499***
TMMS <i>Repair of Emotions</i>	.504***	.296***	.483***	.318***	.239***	.131*	.495***
TMMS <i>Total</i>	.532***	.387***	.501***	.344***	.245***	.344***	.573***
AAQ <i>Total</i>	.709***	.326***	.626***	.491***	.340***	.256***	.675***
BES <i>Total</i>	-.543***	-.316***	-.590***	-.369***	-.254***	-.392***	-.596***
DERS <i>Non- acceptance</i>	-.573***	-.255***	-.707***	-.483***	-.376***	-.292***	-.633***
DERS <i>Goals</i>	-.586***	-.255***	-.552***	-.512***	-.306***	-.284***	-.599***
DERS <i>Impulse</i>	-.682***	-.328***	-.591***	-.486***	-.349***	-.314***	-.667***
DERS <i>Awareness</i>	-.322***	-.344***	-.346***	-.229***	-.177**	-.378***	-.424***

DEVELOPMENT OF THE BDFS

DERS	-.725***	-.323***	-.633***	-.498***	-.360***	-.299***	-.692***
<i>Strategies</i>							
DERS	-.509***	-.297***	-.487***	-.376***	-.190**	-.342***	-.535***
<i>Clarity</i>							
DERS <i>Total</i>	-.737***	-.383***	-.720***	-.558***	-.362***	-.402***	-.766***
DASS	-.595***	-.249***	-.544***	-.446***	-.254***	-.266***	-.575***
<i>Depression</i>							
DASS	-.561***	-.178**	-.490***	-.406***	-.213***	-.195**	-.505***
<i>Anxiety</i>							
DASS <i>Stress</i>	-.512***	-.190**	-.491***	-.459***	-.208***	-.191**	-.502***
DASS	-.625***	-.233***	-.572***	-.492***	-.254***	-.246***	-.594***
<i>Total</i>							
***. Correlation is significant (1-tailed) at the 0.001 level							
**. 0.01 level							
*. 0.05 level							

All associations between components of the BDFS and other measures were statistically significant ( $p < .05$ ). The BDFS *Total* score was strongly correlated with total scores on most other measures and the majority of subscales with the exception of the TMMS subscales and DERS *Awareness* subscale. Moreover, BDFS subscales *Catastrophic Beliefs* and *Negative Evaluation from Others* were most strongly associated with scores on other measures.

### Self-reported psychological and/or addiction problems

25% of the total sample reported that they were currently experiencing psychological or addiction problems and their scores on all of the BDFS subscales and the BDFS total were significantly lower ( $ts > 2.28$ ,  $ps < .03$ ) than those not currently experiencing difficulties (Appendix O).



## Discussion

Models of psychological distress propose that the proximal cognitive determinants of emotional or experiential avoidance (EA) consist of irrational beliefs, meta-cognitions and maladaptive meta-emotional appraisals directly concerning the experience of feelings (e.g. “A strong person should not have distressing feelings”). Butler and Surawy (2004) suggest that typical meanings include being overwhelmed, weak, unable to cope, losing control and beliefs that experiencing distressing emotions will lead to a catastrophe such as becoming violently angry or sliding into a deep depression. Although a number of measures capture emotionally avoidant strategies and behaviours, they do not adequately assess the endorsement of beliefs about the possible consequences of experiencing difficult emotions. This investigation reports the development and initial validation of the Beliefs about Difficult Feelings Scale (BDFS) using a sample of adults from the general population who completed measures online. This study aimed to explore the most important classes of beliefs about the consequences of tolerating difficult emotions from a multi-theoretical perspective and to develop a scale based on these factors.

A stable set of components emerged from factor analysis describing different clusters of beliefs regarding tolerating distressing emotions. The six stable and consistent factors extracted from a large item pool were: *Catastrophic Beliefs*, *Emotions are Useful*, *Negative Evaluation from Others*, *Emotions are Exhausting/Frustrating*, *Emotions are Transient*, and *Emotions are Pointless*. Scores on the BDFS were related to other psychological constructs in theoretically consistent ways, associated with increased

## DEVELOPMENT OF THE BDFS

symptoms of psychological distress and participants who disclosed current psychological/addiction problems scored significantly lower on the BDFS than those who reported no current problems.

The first two negative components *Catastrophic Beliefs* about the consequences of staying with a difficult feeling without doing anything to avoid or stop it, and fears about *Negative Evaluation from Others* explained a large proportion of the total variance of the BDFS, evidenced construct validity by correlating most strongly with conceptually related scales such as *The Acceptance and Action Questionnaire-II* (AAQ-II; Bond et al., 2010) and *The Difficulties with Emotion Regulation Scale* (DERS; Gratz & Roemer, 2004), and demonstrated high associations with *The Depression, Anxiety and Stress Scales-21* (DASS-21; Henry & Crawford, 2005). These findings are consistent with cognitive behavioural conceptualisations which assert that distress results from maladaptive beliefs about the self, others, and the world and indeed one of the principal tasks of CBT is to challenge and modify these beliefs (Beck, 1976).

*Catastrophic Beliefs* such as “I will have a breakdown” or “Something terrible will happen” are well established phenomena in cognitive models of mood disorders. For example in Ehlers and Clark’s (2000) model of PTSD, difficulties in concentration may be catastrophically misinterpreted as signs of madness. The *Negative Evaluation from Others* component reflects unhelpful beliefs and/or fears about other peoples’ reactions to one’s distressing emotions such as “Other people will discover what a bad person I am” and “I will feel humiliated”. These other-oriented fears may be salient in cognitive conceptualisations of depression as research has shown that individuals who place a high

## DEVELOPMENT OF THE BDFS

value on social acceptance and connection are most at risk for depression when confronted with events that symbolise interpersonal loss (Coyne & Whiffen, 1995). Negative evaluation by others is also a key factor in social anxiety disorder and Butler and Hackmann (2004) propose that salient beliefs predominantly relate to a sense of belonging and acceptability or conversely rejection.

The positive BDFS dimensions *Emotions are Useful* (“It will help me grow as a person”) and *Emotions are Transient* (“The feelings will get better over time”) may represent more protective beliefs about emotions. ACT and mindfulness conceptualisations of distress focus on helping clients to develop more accepting and tolerating attitudes towards internal experiences and using the BDFS pre- and post- an ACT or mindfulness based intervention could further examine the construct validity of these factors. Campbell-Sills et al. (2006) suggest that perceptions of unacceptability may serve to enhance the negativity of an emotion, influence the selection of regulation strategies (e.g. “This anxiety is bad, so I should try to get rid of it” may lead to emotion suppression), and contribute negative to secondary or meta-emotional experiences. Mindfulness, defined as paying attention to moment-by-moment experience on purpose and non-judgementally (Kabat-Zinn, 1994) has been found to decrease both distress and emotional avoidance by reducing distracting and ruminating thoughts and behaviours (Jain et al., 2007). Moreover, Garland (2009) hypothesised that improvements following mindfulness interventions may be due to positive re-appraisals of experiences that were previously appraised as stressful.

The final two BDFS components *Emotions are Exhausting/Frustrating* and *Emotions are Pointless* are relatively new concepts to emerge from in EA literature and, to the best of

## DEVELOPMENT OF THE BDFS

the author's knowledge, have not been extensively documented elsewhere. However, during the data collection phase of this study, Manser, Cooper and Trefusis (2012) published a report on the development of a closely related measure *The Beliefs about Emotions Questionnaire* (BAEQ). The BAEQ is firmly grounded in Mentalization, Dialectical Behaviour Therapy (DBT) and Emotion-Focused Therapy (EFT) theory and there are some similarities between BDFS components and the factors Manser et al. (2012) extracted. The BAEQ indexed the following belief clusters about emotions: (a) overwhelming and uncontrollable, (b) shameful and irrational, (c) invalid and meaningless, (d) useless, (e) damaging, and (f) contagious. As such, themes relating to emotions as a waste of psychological resources and a source of frustration may be particularly important to address in future work on emotional regulation and avoidance. Interestingly, historically in psychology, those who first studied human intelligence contrasted emotional experience with rational thought and believed that one had to keep emotions in check in order to think clearly (Salovey et al., 1995).

Due to some similarities between the BDFS and BAEQ, it is important to acknowledge some crucial methodological differences between these scales. Every item on the BAEQ contains a reference to feeling "upset", for example sample items include "I'm not affected by my feelings of being upset" and "When I feel upset I should take notice of it". Authors concede that it was not clear what participants understood by the term 'upset' and their findings may not be replicated with other emotions (Manser et al., 2012). Equally, participants responding to the BDFS may not have had an understanding of the term 'difficult emotions' however they were required to specify which feelings they found most difficult to tolerate before completing the scale. The fact that the BDFS did not include

## DEVELOPMENT OF THE BDFS

specific difficult emotions is one of its strengths. This allows for the scale to be utilised in a variety of contexts with a diverse range of clinical and non-clinical samples and be easily adapted for use with the experience of general distressing feelings or more specific emotions (e.g. shame, anger). Moreover, it may be possible to repeat the BDFS for different emotions (e.g. anxiety and excitement) with the same individual in therapy perhaps to explain the importance of meta-emotional appraisals or to guide cognitive re-structuring techniques, although using the scale in this way was not researched in this study. The fact that the sample in the current study reported difficulties with the experience of a range of both negative and positive emotions further evidences the need for emotionally flexible measures in research.

Total BDFS and individual subscale scores were significantly correlated with related scales such as the AAQ measuring experiential avoidance, the DERS which assesses characteristic patterns of emotion regulation, the BES measuring the unacceptability of experiencing and expressing emotions and the TMMS which assesses emotional intelligence. The subscales *Catastrophic Beliefs* and *Negative Evaluation from Others* were most strongly associated with scores on other measures suggesting that these factors represent particularly salient aspects of the emotional avoidance construct. As predicted, the overlap between the BDFS and related scales was moderate and as the highest correlation obtained was .77, it can be postulated that the BDFS does indeed add something unique to existing measures and theories of EA. Although the different BDFS subscales showed a different pattern of associations with other indices, a number of strong correlations ( $r > .5$ ) were observed suggesting that many of these constructs are quite strongly inter-linked. However it is also possible that at least in part, these associations are

## DEVELOPMENT OF THE BDFS

due to common method variance, or the tendency to provide similar answers to multiple scales in the absence of true correlations between measures (Clark & Watson, 1995). Future studies should investigate divergent as well as convergent validity with other measures.

With regards to construct validity, total BDFS scores were strongly associated with DASS-21 total and subscales scores, that is to say, symptoms of depression, anxiety and stress. Again the *Catastrophic Beliefs* subscale was the strongest independent predictor of psychological distress indicating an important and previously theoretically well established connection between the endorsement of catastrophic beliefs about emotions and psychopathology (Butler & Surawy, 2004). A further indication of the BDFS's predictive power lies with the finding that participants who reported currently experiencing psychological or addiction problems scored significantly higher on all BDFS subscales and the total score than respondents not currently experiencing difficulties. Although these initial results are encouraging, further investigations may be enhanced by calculating hierarchical stepwise linear regressions to ascertain the amount of variance in measures of psychological distress that could be reliably predicted by BDFS scores. Another strong test of the BDFS's construct validity would be to see if the scale acts as a mediator in randomised controlled trials of interventions that aim to increase mental health by reducing emotional avoidance. The BDFS should also be tested using a wider range of clinical and non clinical samples. Although one of the strengths of this study is its recruitment of a non-student general public population, there were more people with psychological difficulties in this sample compared to the general population due to some

deliberate targeted recruitment of this group. It is currently not known whether the factor structure would be replicated in other more general or clinical samples.

### **Limitations**

The primary limitations of this study include the use of a cross-sectional methodology and the study's reliance on self-report measures. Although observer ratings would not be appropriate for assessing beliefs, it may be interesting in future research to contrast scores on the BDFS with an implicit laboratory based measure of emotional avoidance (e.g. Hooper et al., 2010). Other methodological drawbacks include not controlling for order effects during the administration of measures and BDFS-P items. The positive and negative items were deliberately listed in the BDFS separately to avoid possible participant confusion about the direction of responses, but future studies could investigate the scale using a mixed order. Furthermore, BDFS consistency and reliability calculations were conducted from original responses on the 90 item BDFS-P as opposed to the final 29 item version of the scale. Future studies should test order effects, internal consistency and attempt to replicate the BDFS' factor structure with the final 29 item version.

Finally, although the sample was diverse in terms of age and geographical residence, the majority of respondents were female, Caucasian, and well educated. As is common in the bulk of psychology research on emotions, this reduces the generalisability of findings to male, less educated and more ethnically diverse populations. Although an anonymous online methodology has the potential advantage that participants may feel more able to reveal symptoms or beliefs which might be stigmatised otherwise, it also means that the

nature of the participant group can be less clearly characterised or replicated. Generalising from internet samples may be especially problematic due to self-selection and dropout biases, demographic differences between internet users and non-users, and the lack of control over the data-collection setting, for example online participants may simply invest less time and energy than those involved in laboratory experiments or telephone surveys (Kraut et al., 2004). Kraut et al. (2004) suggest using larger samples and conducting thorough data mining to address these challenges.

### **Conclusions**

This study successfully produced a multidimensional, reliable, consistent and valid scale assessing beliefs about the consequences of experiencing difficult feelings. Initial item selection was driven by different theoretical models and this is one of the BDFS' strengths as it contains subscales that emerged empirically from factor analysis rather than from predetermined items designed with a single theoretical approach in mind. The BDFS is suitable for use in a variety of research contexts and as a therapeutic tool to aid in assessing and formulating emotional aspects of psychological distress. The BDFS adds some important new information to theories of emotion regulation by identifying a number of beliefs that are likely to lead to emotional avoidance, including catastrophic beliefs, fears of negative evaluation from others, and appraisals of emotions as exhausting, frustrating or pointless. Conversely beliefs about difficult emotions as useful and transient may reduce avoidance. This paper describes promising but preliminary findings and further work is needed to replicate the scale's factor structure, reliability and validity.



### References

- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J. & Toney, L. (2006). Using Self-Report Assessment Methods to Explore Facets of Mindfulness. *Assessment, 13*, 27-45.
- Baer, R. A., Walsh, E., & Lykins, E. L. B. (2009). Assessment of mindfulness. In F. Didonna (Ed.), *Clinical Handbook of Mindfulness*, (pp. 153-168). NY: Springer.
- Baker, Thomas, Thomas & Owens, 2007 'Baker, R., Thomas, S., Thomas, P.W., & Owens, M. (2007). Development of an Emotional Processing Scale. *Journal of Psychosomatic Research, 62*, 167-178.
- Barlow, D. H. (2000). Unravelling the mysteries of anxiety and its disorders from the perspective of emotion theory. *American Psychologist, 55*, 1247-1263.
- Beck, A. T. (1976). *Cognitive Therapy and the Emotional Disorders*. International Universities Press New York.
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. C., Guenole, N., Orcutt, H. K., Waltz, T., et al. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire-II: A revised measure of psychological flexibility and acceptance. *Behaviour Therapy, 42*, 676-688
- BPS (2011) Code of Human Research Ethics accessed from: <http://www.bps.org.uk/publications/policy-guidelines/research-guidelines-policy-documents/research-guidelines-policy-docum> in June 2010.

## DEVELOPMENT OF THE BDFS

- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*, 822–848.
- Butler, G. & Hackmann, A. (2004). Social Anxiety. In Bennett-Levy, J., Butler, G., Fennell, M., Hackman, A., Mueller, M., & Westbrook, D. (Eds.), *Oxford Guide to Behavioural Experiments in Cognitive Therapy* (pp. 351-372). Oxford University Press.
- Butler, G. & Surawy, C. (2004). Avoidance of affect. In Bennett-Levy, J., Butler, G., Fennell, M., Hackman, A., Mueller, M., & Westbrook, D. (Eds.), *Oxford Guide to Behavioural Experiments in Cognitive Therapy* (pp. 351-372). Oxford University Press.
- Campbell-Sills, L., Barlow, D. H., Brown, T. A., & Hofmann, S. G. (2006). Acceptability and suppression of negative emotion in anxiety and mood disorders. *Emotion, 6*, 587-595.
- Carvalho, J. P. & Hopko, D. R. (2011). Behavioural theory of depression: Reinforcement as a mediating variable between avoidance and depression. *Behaviour Therapy and Experimental Psychiatry, 42*, 154-162.
- Chapman, A. L., Gratz, K. L., & Brown, M. Z. (2006). Solving the puzzle of deliberate self-harm: The experiential avoidance model. *Behaviour Research and Therapy, 44*, 371–394.
- Chawla, N., & Ostafin, B.D. (2007). Experiential avoidance as a functional dimensional approach to psychopathology: An empirical review. *Journal of Clinical Psychology, 63*, 871-890.
- Clark, L.A., Watson, D., 1995. Constructing Validity: Basic Issues in Objective Scale Development. *Psychological Assessment, 7*, 309-319

## DEVELOPMENT OF THE BDFS

- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Second Edition. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
- Coyne, J. C., & Whiffen, V.E. (1995). Issues in personality as diathesis for depression: The case of sociotropy/dependency and autonomy/self-criticism. *Psychological Bulletin*, *118*, 358-378.
- Cribb, G., Moulds, M. L., & Carter, S. (2006). Rumination and experiential avoidance in depression. *Behaviour Change*, *23*, 165–176.
- Davies, M. F. (2007). Irrational beliefs and unconditional self-acceptance. II. Experimental evidence for a causal link between two key features of REBT. *Journal of Rational-Emotive & Cognitive-Behaviour Therapy*, *26*, 89–101.
- Dziuban C. D. & Shirkey E. C. (1974). When is a correlation matrix appropriate for factor analysis? *Psychological Bulletin*, *6*, 358–361.
- Dumitrescu A. L., Toma C., Lascu V. (2010). Associations among sleep disturbance, vitality, fatigue and oral health. *Oral Health and Preventive Dentistry*, *8*, 323-330.
- Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour research and therapy*, *38*, 319–345.
- Fabrigar I. W., Wegener D. T., Maccallum R. C., Strahan E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, *3*, 272 –299.
- Field, A. (2009). *Discovering Statistics Using SPSS: Introducing Statistical Methods*. SAGE.

## DEVELOPMENT OF THE BDFS

- Fitness, J., & Curtis, M. (2005). Emotional intelligence and the trait meta-mood scale: Relationship with empathy, attributional complexity, self-control, and responses to interpersonal conflict. *E-Journal of Applied Psychology: Social Section, 1*, 50-62.
- Fox, H. C., Hong, K. A., & Sinha, R. (2008). Difficulties in emotion regulation and impulse control in recently abstinent alcoholics compared with social drinkers. *Addictive Behaviours, 33*, 388-394.
- Gamez, W., Chmielewski, M., Kotov, R., Ruggero, C., & Watson, D. (2011). Development of a measure of experiential avoidance: The multidimensional experiential avoidance questionnaire. *Psychological Assessment, 23*, 692-713.
- Garland, E. L., Fredrickson, B., Kring, A. M., Johnson, D. P., Meyer, P. S., & Penn, D. L. (2010). Upward spirals of positive emotions counter downward spirals of negativity: Insights from the broaden-and-build theory and affective neuroscience on the treatment of emotion dysfunctions and deficits in psychopathology. *Clinical Psychology Review, 30*, 849-864.
- Giorgio, J. M., Sanflippo, J., Kleiman, E., Reilly, D., Bender, R. E., Wagner, C. A., Liu, R. T., et al. (2010). An experiential avoidance conceptualization of depressive rumination: Three tests of the model. *Behaviour Research and Therapy, 48*, 1021-1031.
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioural Assessment, 26*, 41-54.

## DEVELOPMENT OF THE BDFS

- Gratz, K. L., Tull, M. T., & Gunderson, J. G. (2008). Preliminary data on the relationship between anxiety sensitivity and borderline personality disorder: The role of experiential avoidance. *Journal of Psychiatric Research, 42*, 550–559.
- Greco, L. A., Heffner, M., Poe, S., Ritchie, S., Polak, M., & Lynch, S. K. (2005). Maternal adjustment following preterm birth: Contributions of experiential avoidance. *Behaviour Therapy, 36*, 177–184.
- Guadagnoli, E., & Velicer, W. F. (1988). Relation of sample size to the stability of component patterns. *Psychological Bulletin, 103*, 265–275.
- Hayes, S. C., Strosahl, K., & Wilson, K. (1999). *Acceptance and Commitment Therapy: Understanding and treating human suffering*. New York: Guilford Press.
- Hayes, S. C., Strosahl, K. D., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., Polusny, M., et al. (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record, 54*, 553-578.
- Hayes, L Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy, 44*, 1-25.
- Hayes, S. C., & Strosahl, K. D. (Eds.). (2004). *A practical guide to acceptance and commitment therapy*. New York: Springer.
- Hayes, S. C., Strosahl, K., & Wilson, K. (1999). *Acceptance and Commitment Therapy: Understanding and treating human suffering*. New York: Guilford Press.

## DEVELOPMENT OF THE BDFS

- Hayes, S. C., & Wilson, K. G. (1994). Acceptance and commitment therapy: Altering the verbal support for experiential avoidance. *The Behaviour Analyst, 17*, 289.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioural disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64*, 1152-1168.
- Henry, J. D., & Crawford, J. R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology, 44*, 227-239.
- Hermans, D., Defranc, A., Raes, F., Williams, J. M. G., & Eelen, P. (2005). Reduced autobiographical memory specificity as an avoidant coping style. *British Journal of Clinical Psychology, 44*, 583-589.
- Hernandez-Guzman, L., Dobson, K. S., Caso-Niebla, J., Gonzalez-Montesinos, M., Epp, A., Arratibel-Siles, M. L., & Wierzbicka-Szymczak, E. (2009). The Spanish version of the cognitive-behavioural avoidance scale. *rev.latinoam.psicol (online), 41*, 99-108.
- Hofmann, S. G., & Kashdan, T. B. (2009). The Affective Style Questionnaire: Development and Psychometric Properties. *Journal of Psychopathology and Behavioural Assessment, 32*, 255-263.
- Hooper, N., Villatte, M., Neofotistou, E., & McHugh, L. (2010). The effects of mindfulness versus thought suppression on implicit and explicit measures of experiential avoidance. *International Journal of Behaviour Consultation & Therapy, 6*, 233-244.

## DEVELOPMENT OF THE BDFS

- Jain, S., Shapiro, S., Swanick, S., Rowsch, S., Mills, P., Bell, I., & Schwartz, E. (2007). A randomized controlled trial of mindfulness meditation versus relaxation training: Effects on distress, positive states of mind, rumination, and distraction. *Annals of Behavioural Medicine, 33*, 11-21.
- Kabat-Zinn, J. (1992). *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain and Illness*. New York: Hyperion.
- Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark IV. *Educational and Psychological Measurement, 34*, 111-117.
- Kanter, J. W., Mulick, P. S., Busch, A. M., Berlin, K. S., & Martell, C. R. (2006). The behavioural activation for depression scale (BADs): Psychometric properties and factor structure. *Journal of Psychopathology and Behavioural Assessment, 29*, 191-202.
- Kashdan, T. B., Breen, W. E., Afram, A., & Terhar, D. (2010). Experiential avoidance in idiographic, autobiographical memories: Construct validity and links to social anxiety, depressive, and anger symptoms. *Journal of Anxiety Disorders, 24*, 528-534.
- Kendall, M. G. & Stuart A. (1958). *The Advanced Theory of Statistics, Volume 1*. London: Griffin.
- Kraut, R., Olson, J., Banaji, M., Bruckman, A., Cohen, J., & Couper, M. (2004). Psychological Research Online: Report of Board of Scientific Affairs' Advisory Group on the Conduct of Research on the Internet. *American Psychologist, 59*, 105-117.
- Leahy R. L. (2003). *Cognitive therapy techniques: A practitioner's guide*. New York: Guilford Press.

## DEVELOPMENT OF THE BDFS

- Leonard, N. H. & Harvey, M. (2007). The trait of curiosity as a predictor of emotional intelligence. *Journal of applied social psychology, 37*, 1914-1929.
- Linehan, M. M. (1993). *Skills Training Manual for Treatment of Borderline Personality Disorder*. New York Guilford Press.
- Manser R., Cooper M., & Trefusis J. (2012). Beliefs about emotions as a metacognitive construct: initial development of a self-report questionnaire measure and preliminary investigation in relation to emotion regulation. *Clinical Psychology & Psychotherapy, 19*, 235-46.
- Mitmansgruber, H., Beck, T. N., & Schubler, G. (2008). "Mindful helpers": Experiential avoidance, meta-emotions, and emotion regulation in paramedics. *Journal of Research in Personality, 42*, 1358-1363.
- Moulds, M. L., Kandris, E., Starr, S., & Wong, A. C. M. (2007). The relationship between rumination, avoidance and depression in a non-clinical sample. *Behaviour Research and Therapy, 45*, 251-261.
- Neuser, N. J. (2010). Examining the Factors of Mindfulness: A Confirmatory Factor Analysis of the Five Facet Mindfulness Questionnaire. Retrieved from <http://commons.pacificu.edu/spp/128/>
- Ottenbreit, N. D., & Dobson, K. S. (2004). Avoidance and depression: the construction of the Cognitive-Behavioral Avoidance Scale. *Behaviour Research and Therapy, 42*, 293-313.
- Polusny, M. A., Ries, B. J., Meis, L. A., DeGarmo, D., McCormick-Deaton, C. M., Thuras, P., & Erbes, C. R. (2011). Effects of parents' experiential avoidance and PTSD on adolescent disaster-related posttraumatic stress symptomatology. *Journal of Family Psychology, 25*, 220-229.



## DEVELOPMENT OF THE BDFS

- Rimes, K. A., & Chalder, T. (2010). The Beliefs about Emotions Scale: Validity, reliability and sensitivity to change. *Journal of Psychosomatic Research, 68*, 285–292.
- Salovey, P., Mayer, J. D., Goldman, S., Turvey, C., & Palfai, T. (1995). Emotional attention, clarity and repair: exploring emotional intelligence using the Trait Meta-Mood scale. In J. W. Pennebaker, *Emotion, disclosure and health* (pp. 125-154). Washington, DC: American Psychological Association.
- Salters-Pedneault K., Roemer L., Tull M. T., Rucker L., & Mennin D. S. (2006). Emotion in chronic worry and GAD: Evidence of regulation deficits. *Cognitive Therapy and Research, 30*, 469–480.
- Schmalz, J. E., & Murrell, A. R. (2010). Measuring experiential avoidance in adults: The Avoidance and Fusion Questionnaire. *International Journal of Behavioural Consultation and Therapy, 6*, 198-213.
- Tamir, M., Chiu, C. Y., & Gross, J. J. (2007). Business or pleasure? Utilitarian versus hedonic considerations in emotion regulation. *Emotion, 7*, 546-554.
- Tull M. T., Barrett H. M., McMillan E. S., & Roemer L. (2007). A preliminary investigation of the relationship between emotion regulation difficulties and posttraumatic stress symptoms. *Behaviour Therapy, 38*, 303–313.
- Tull M. T. & Roemer L. (2007). Emotion regulation difficulties associated with the experience of uncued panic attacks: Evidence of experiential avoidance, emotional non-acceptance, and decreased emotional clarity. *Behaviour Therapy, 38*, 378–391

#### DEVELOPMENT OF THE BDFS

Veale, D. (2008). Behavioural activation for depression. *Advances in Psychiatric Treatment*, 14, 29–36.

Werner, K., & Gross, J. J. (2010). Emotion regulation and psychopathology: A conceptual framework. In A. Kring & D. Sloan (Eds.), *Emotion regulation and psychopathology*. (pp. 13-37). New York: Guilford Press.

Section C: Critical Appraisal

Word Count: 1913

## QUESTION 1

***1. What research skills have you learned and what research abilities have you developed from undertaking this project and what do you think you need to learn further?***

Having never undertaken a research project of this magnitude, I have acquired a number of new skills from undertaking this study. Firstly, I have gained an understanding of the processes involved in obtaining formal ethical approval and the need for a detailed and clear proposal of prospective research. I did not require approval from an NHS ethics panel as my participants were recruited from the general public therefore I am yet to gain an understanding of this process.

All data for this study were collected online and this methodology required me to design and develop online tools. With some help, I discovered how to construct a website and an online survey using fit for purpose software. I also used web-based monitoring tools to extract relevant information from my data set. Furthermore, a big aspect of this research concerned recruitment and as I required approximately three hundred participants, I spent a considerable amount of time advertising and promoting my research using social media such as Twitter and Facebook to target potential candidates. I discovered online communities of service users and researchers which I hope to contribute to in the future. Conducting psychological research via the internet is an exciting and rapidly growing field with a number of advantages and challenges and I am glad to have obtained some skills in this area.

With regards to the specific requirements of the different sections of this project, I found Section A the most challenging by far. I struggled with conducting appropriate

## CRITICAL APPRAISAL

literature searches due to the sheer breadth of emotion regulation research and through this process, I have vastly improved my ability to review, synthesise and present relevant material from a wide selection of both empirical and theoretical papers.

My methodology was quantitative and required a working knowledge of the procedures involved in factor analysis. Having never utilised this statistical method of data reduction, I have obtained some quite specific skills regarding the steps required to develop and validate a new questionnaire. Due to the preliminary nature of my research, I was not able to utilise partial or hierarchical regression methods and this is an area for further personal development in the future with regards to gaining more advanced statistical competencies.

## QUESTION 2

### ***2. If you were able to do this project again, what would you do differently and why?***

Firstly, the sample I recruited was not as representative of the general population as I would have liked. Over three quarters of my participants were female and this ratio could have been significantly improved by targeting males. This could have been achieved by adopting an advertising strategy specifically aimed at recruiting males, for example by contacting online and print media for men (e.g. <http://www.malehealth.co.uk/>; <http://www.mensfitness.co.uk/>) and posting advertisements on male-oriented Facebook pages. My sample could have also been more ethnically diverse and similarly this shortcoming could have been overcome by specifically targeting minority communities (e.g. <http://www.minorityrights.org/>; <http://www.flavourmag.co.uk/>; <http://www.asianlifestylemag.com/>).

## CRITICAL APPRAISAL

In general, participant recruitment could have been improved upon by contacting relevant organisations much earlier to allow enough time for my study to go through the process of obtaining approval for dissemination. I had planned to target mental health service users through publications such as *1in4* magazine and although its editors were interested in advertising the study, their procedures required applications to have been completed some months in advance of the research going live. Having outlined these shortcomings, I am however pleased to have been able to recruit a sample of which over half disclosed having experienced a psychological or addiction problem at some point in their lives and the fact that respondents were fairly geographically dispersed is one advantage of my recruitment strategy.

Due to a relatively short time scale prior to submitting an ethics proposal, I was required to choose the additional standardised measures that I would be administering early on. Although I had conducted a search for measures similar to the one I was planning to design, there was one scale that I missed, the *Cognitive-Behavioural Avoidance Scale* (CBAS; Ottenbreit and Dobson, 2004). Although the CBAS was not a measure of beliefs about emotions, it would have been interesting to contrast scores on a cognitive behavioural scale of avoidance with both the *Acceptance and Action Questionnaire-II* (AAQ-II; Bond et al., 2010) and the new Beliefs about Difficult Feelings Scale (BDFS).

Scale selection for the study also took place prior to my final literature search and the writing of Section A. At the time, I was not aware that my argument would focus so heavily on comparing cognitive behavioural theory with hypotheses about the determinants of emotional avoidance from an Acceptance and Commitment Therapy (ACT) framework. It

## CRITICAL APPRAISAL

might also have been interesting to administer the *Anxiety Sensitivity Index-3* (ASI-3; Taylor et al., 2007) as a convergent measure. Also with regards to measures, the subscales chosen from the *Five-Facet Mindfulness Questionnaire* (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) did not demonstrate adequate internal consistency in my sample to be utilised in further analyses, so in hindsight, I would have chosen a different measure of mindfulness.

### QUESTION 3

**3. *Clinically, as a consequence of doing this study, would you do anything differently and why?***

This research required extensive reading of emotion regulation literature. This is an extremely broad topic and directly relevant to most forms of psychological distress and well-being and therefore highly significant in clinical practice. This topic is also theoretically model-independent and can be applied to therapeutic interventions in most disciplines or modalities. Emotional avoidance is a core difficulty in a range of disorders and from having carried out this research, I have become much more mindful of the ways in which my clients respond to difficult emotions. I am currently working in a neuropsychiatry service and have two therapy clients who suffer from dissociative non-epileptic seizures. Managing these attacks is the focus of therapy. Emotion regulation and avoidance has been a key component in their formulations and some of our work is geared towards improving their understanding of and willingness to tolerate difficult feelings. I have utilised the Beliefs about Difficult Feelings scale with one of these clients to aid assessment and formulation. As part of the intervention, I aim to test maladaptive beliefs

## CRITICAL APPRAISAL

about distressing emotions with a view to collecting disconfirming evidence to help us to challenge them.

The origins of the concept of 'experiential avoidance' lie in the Acceptance and Commitment Therapy (ACT) tradition, and although I have an interest in mindfulness approaches to reducing psychological distress, conducting this research has afforded me with much richer understanding of the ACT framework. This is now a therapeutic modality in which I would consider undertaking some further training in future.

### QUESTION 4

***4. If you were to undertake further research in this area what would that research project seek to answer and how would you go about doing it?***

I think the most important next step would be to administer the final 29 item version of the BDFS to a large new sample and conduct factor analysis to confirm its six component factor structure. Following this stage, a number of further statistical analyses could be carried out including a stepwise hierarchical multiple regression with the following independent variables entered into each step: (1) demographic variables (gender, age, ethnicity, education, profession), (2) self-reported history of psychological and/or addiction problems, (3) DASS-21 subscales (depression, anxiety, and stress). This method would allow me to ascertain which measures most strongly predicted distress, and whether the BDFS explained any additional variance over and above other measures administered.

I currently have data on the particular emotions that participants found most difficult to tolerate and these could be clustered according to whether they are positive or negative.



## CRITICAL APPRAISAL

Participants' scores on the total BDFS and individual subscales could be contrasted for different classes of emotion, or even for specific emotions to discover whether despair, for example, was more strongly associated with catastrophic beliefs when compared to fear etcetera. I have also collected data on participants' incidence of self-reported psychological or addiction problems and treatments affording various statistical analyses with a view to seeing whether different disorders predict the endorsement of different clusters of beliefs. This type of fine grained analysis would be considerably more viable with a much larger sample.

The original principal components analysis of the pilot 90 item BDFS initially yielded 12 components (Appendix M) and although components 7 to 12 were removed from further analyses in this study, further investigation of these possible additional clusters of beliefs is warranted. Component 7, for example, contained the items *'I could become dangerous to other people'*, *'I might hurt other people'*, and *'I will end up harming myself'*. This cluster was rejected because two of these items also loaded highly onto component 1, but the fact that these three items make good theoretical sense suggests that if the 90 item pilot version contained several more statements indexing physical harm to self and others, the items contained in component seven may have demonstrated more robust psychometric properties and deemed fit for inclusion in the final scale. Similarly component 8 contained the items *'I will act without thinking things through'*, *'I will act on the spur of the moment'* and *'I will become confused'*. Two of these items suggest that the concept of impulsive action may be another important factor with regards to an individual's ability to tolerate distress. In order to obtain a broader understanding of beliefs about difficult feelings, a new pilot version of the scale with many more items specifically designed to tap some of

## CRITICAL APPRAISAL

the suggested underlying belief clusters in components 7 to 12 may be yield more accurate and complete account of the different classes of beliefs about difficult emotions than those indexed in the 29 item version. In fact, a BDFS follow-up study of this nature, supervised by Dr. Kate Rimes who supervised this project, is due to be undertaken by a trainee clinical psychologist enrolled on clinical psychology course at the University of Bath. This follow-up project has been submitted to an ethics committee and is currently awaiting approval.

Analysis of the BDFS did not reveal significant gender differences on the total BDFS score or the majority of its subscales with the exception of the *Emotions are Exhausting/Frustrating* subscale. As the sample in the current study consisted of mostly women however, it would be interesting to run this analysis with a more balanced sample. Moreover, research suggests that there are cultural differences in emotional regulation, recognition and expression (e.g. John & Gross, 2007; Soto & Levenson, 2009; Soto & Levenson & Ebling, 2005) and it would be interesting to investigate whether there are cultural differences in beliefs about difficult emotions. This could be done by administering the pilot 90 item BDFS to samples of individuals from different cultural groups, or even to have the scale translated into different languages.

For the BDFS to become an established instrument in emotion regulation research, it will be important to widely disseminate both the scale itself and findings in the psychology community. This could be achieved using some of the contacts that I have acquired through networking with other researchers in the field and potential collaboration with groups such as EROS, a partnership between researchers from a variety

## CRITICAL APPRAISAL

of psychological disciplines based at five UK universities, studying questions concerning Emotion Regulation of Others and Self (EROS; <http://www.erosresearch.org/index.php>).

## References

- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13*, 27-45.
- Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. C., Guenole, N., Orcutt, H. K., Waltz, T., et al. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire-II: A revised measure of psychological flexibility and acceptance. *Behavior Therapy, 1*–38.
- John, O.P., & Gross, J.J. (2007). Individual differences in emotion regulation strategies: Links to global trait, dynamic, and social cognitive constructs. In J.J. Gross (Ed.), *Handbook of emotion regulation* (pp. 351-372). New York: Guilford Press.
- Ottenbreit, N. D., & Dobson, K. S. (2004). Avoidance and depression: the construction of the Cognitive-Behavioral Avoidance Scale. *Behaviour Research and Therapy, 42*, 293–313.
- Soto, J. A., & Levenson, R. W. (2009). Emotion recognition across cultures: The influence of ethnicity on empathic accuracy and physiological linkage. *Emotion, 9*, 874–884.
- Soto, J. A., Levenson, R. W., & Ebling, R. (2005). Cultures of moderation and expression: Emotional experience, behavior, and physiology in Chinese Americans and Mexican Americans. *Emotion, 5*, 154-165.
- Taylor S., Zvolensky, M. J., Cox, B. J., Deacon, B., Heimberg, R. G., Ledley, D. R., Abramowitz, J. S., et al. (2007). Robust dimensions of anxiety sensitivity: Development and initial validation of the Anxiety Sensitivity Index-3. *Psychological Assessment, 19*, 176-188.

APPENDICES

Section D: APPENDICES

APPENDICES

APPENDIX A: Participant Characteristics

Figure 1

Frequency Table Showing the Age Distribution of Respondents

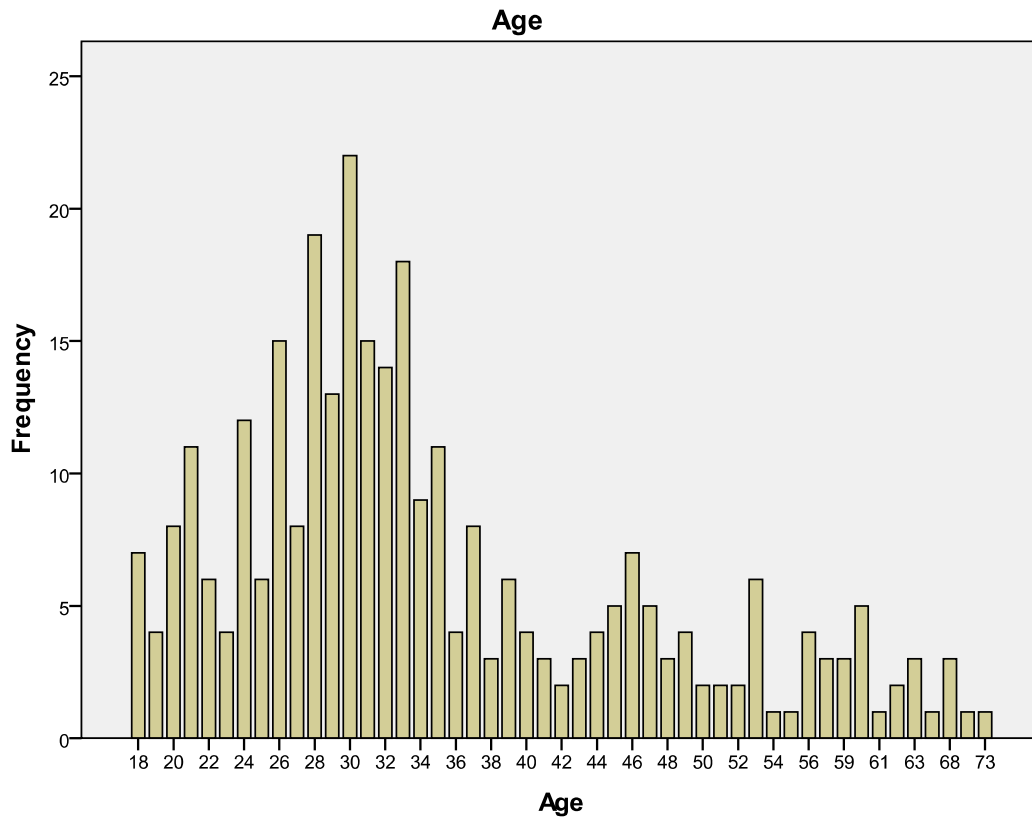


Table 1

Current psychological and/or addiction problems reported by participants

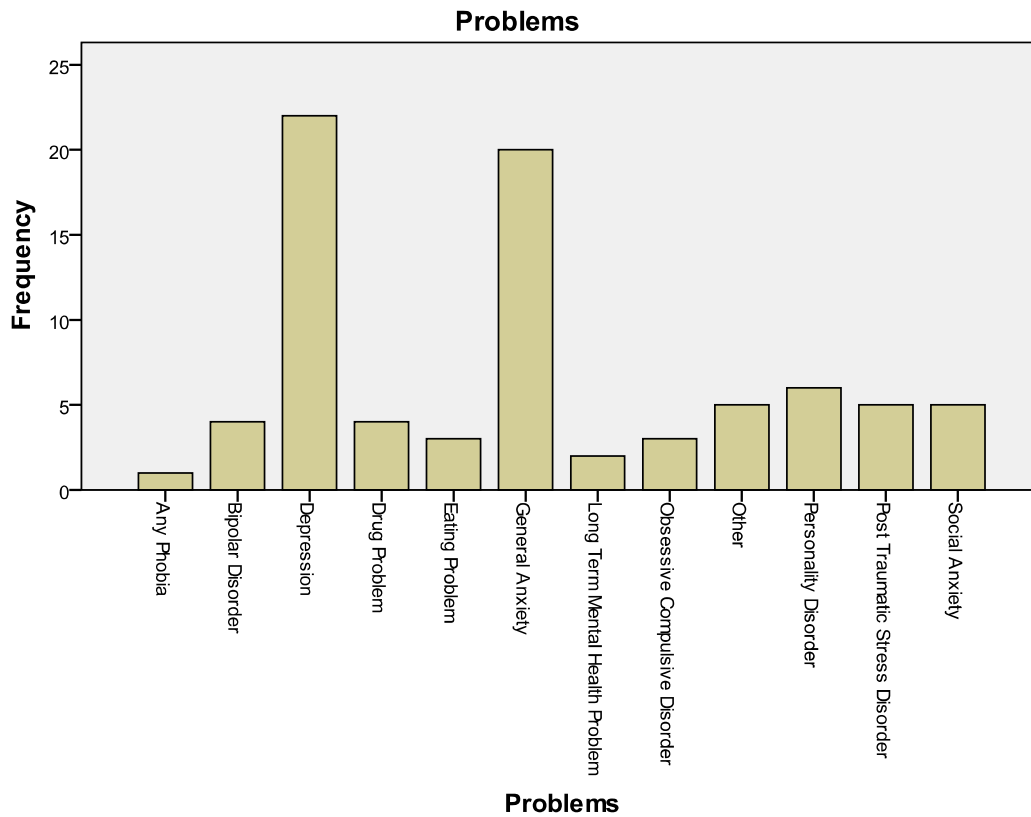
<i>Problems</i>		
	Frequency	Percent
Any Phobia	1	1.3
Bipolar Disorder	4	5.0
Depression	22	27.5
Drug Problem	4	5.0

APPENDICES

Eating Problem	3	3.8
General Anxiety	20	25.0
Long Term Mental Health Problem	2	2.5
Obsessive Compulsive Disorder	3	3.8
Other	5	6.3
Personality Disorder	6	7.5
Post Traumatic Stress Disorder	5	6.3
Social Anxiety	5	6.3
<b>Total</b>	<b>80</b>	<b>100.0</b>

Figure 2

Current psychological and/or addiction problems reported by participants



APPENDICES

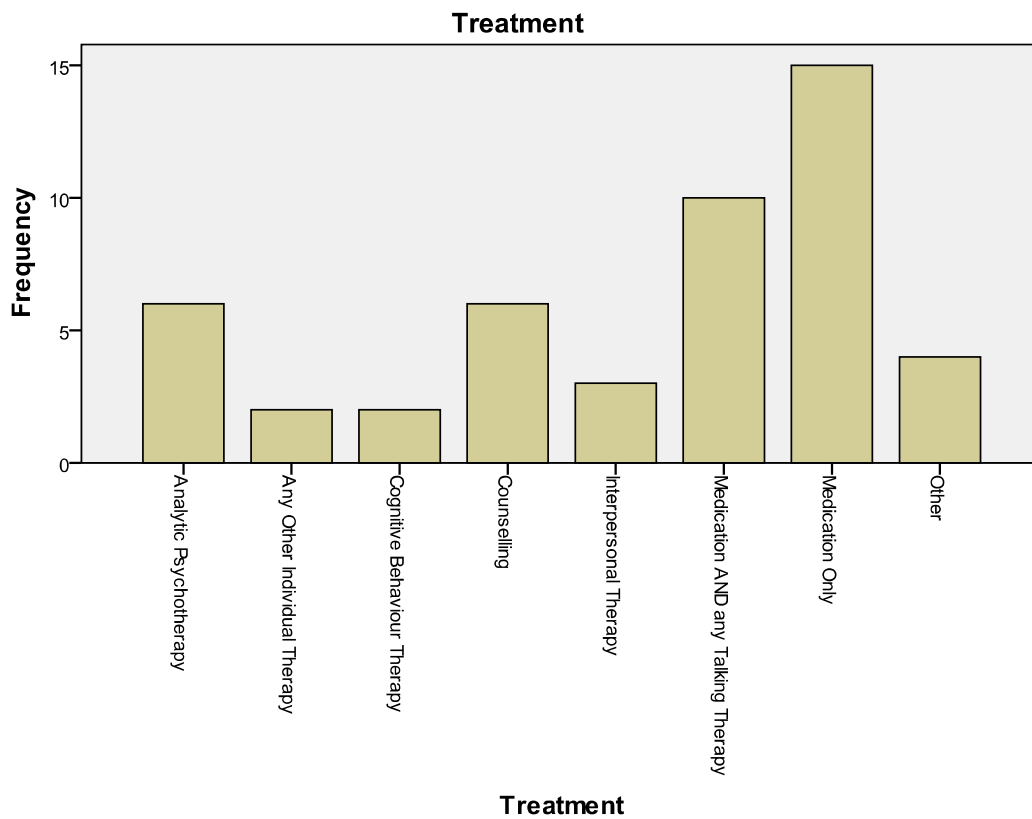
Table 2

Current treatments for psychological and/or addiction problems reported by participants

<i>Treatment</i>	Frequency	Percent
Analytic Psychotherapy	6	12.5
Any Other Individual Therapy	2	4.2
Cognitive Behaviour Therapy	2	4.2
Counselling	6	12.5
Interpersonal Therapy	3	6.3
Medication AND any Talking Therapy	10	20.8
Medication Only	15	31.3
Other	4	8.3
<b>Total</b>	<b>48</b>	<b>100.0</b>

Figure 3

Current treatments for psychological and/or addiction problems reported by participants





## APPENDICES

### APPENDIX B: Website




**Emotions Matter** Login | Register

## Home

Welcome to EmotionsMatter.com

**UPDATE: THIS SURVEY CLOSERS ON FRIDAY 25 MAY 2012.**



My name is Malina Amin and I am a trainee clinical psychologist interested in how people manage their feelings.

This study is part of a research project looking at the different ways that people can experience emotions.

The project has been approved by Canterbury Christ Church University's ethics committee.

By taking part in this survey, you are helping us to refine ways of working with people who may be distressed by their emotional reactions. Research in this area is also of great value to how we understand human experiences. Your responses in this survey will contribute to what we already know about emotions.

I would like to invite you to click on the link below for more information on taking part. If you decide to participate, you can choose to be entered into a draw to receive a £50 Amazon.com voucher to spend on any purchase.

**Click here to take part in the survey**

If you have any questions, you can contact me directly: [M.Amin@emotionsmatter.org.uk](mailto:M.Amin@emotionsmatter.org.uk)

**Publications:**

Amin, M., Olu-Lafe, O., Claessen, L.E., Booczek-Edmans, M., Ward, J., Willems, A.L., & Seghy, N. (2011). Understanding grapheme personification: A social synaesthesia? *Journal of Neuropsychology*, 6, 255-262. (Winner of the Journal of Neuropsychology's Best Paper Prize 2011, read it for free)

### Website Contents:

## Home

Welcome to EmotionsMatter.com

**UPDATE: THIS SURVEY CLOSERS ON FRIDAY 25 MAY 2012.**

## APPENDICES

My name is Maina Amin and I am a trainee clinical psychologist interested in how people manage their feelings.

This study is part of a research project looking at the different ways that people can experience emotions.

The project has been approved by Canterbury Christ Church University's ethics committee.

By taking part in this survey, you are helping us to refine ways of working with people who may be distressed by their emotional reactions. Research in this area is also of great value to how we understand human experiences. Your responses in this survey will contribute to what we already know about emotions.

I would like to invite you to click on the link below for more information on taking part. If you decide to participate, you can choose to be entered into a draw to receive a £50 Amazon.com voucher to spend on any purchase.

If you have any questions, you can contact me directly: [M.Amin@emotionsmatter.org.uk](mailto:M.Amin@emotionsmatter.org.uk)

### Publications:

Amin, M., Olu-Lafe, O., Claessen, L.E., Sobczak-Edmans, M., Ward, J., Williams, A.L., & Sagiv, N. (2011). Understanding grapheme personification: A social synaesthesia? *Journal of Neuropsychology*, 5, 255-282. (Winner of the Journal of Neuropsychology's Best Paper Prize 2011, read it for free online here: <http://onlinelibrary.wiley.com/doi/10.1111/j.1748-6653.2011.02016.x/full>)

### Other useful information:

Positive Psychology: <http://www.positivepsychology.org.uk/>

Happiness Project: <http://www.happiness-project.com/>

Happiness: <http://psychologytoday.com/basics/happiness>

For advice and information on Mental Health: <http://www.mind.org.uk/>

How and where to get help: <http://www.nhsdirect.nhs.uk/>

For support from Service Users: <http://www.freewebs.com/bruiseduk/>

To participate in other online psychology surveys:  
<http://psych.hanover.edu/research/exponnet.html>

## APPENDICES

### APPENDIX C: Advertisements to attract potential participants

#### Twitter:

University of Canterbury is conducting new research on emotion regulation with the aim of improving psychological treatments. You can help by participating in a short anonymous online survey here: <http://www.emotionsmatter.org.uk/>

#### Facebook:

Participate in an important NEW ONLINE psychology study on emotions:  
<http://www.emotionsmatter.org.uk/>

We are a research group based at Canterbury University.

YOU CAN HELP us to refine ways of working with people who may be distressed by their emotional reactions.

This research is in the form of a short anonymous online survey.

By participating, you will also be entered into a draw to receive a £50 Amazon.com voucher.

Survey closing to new participants in May 2012.

## **Welcome to the online survey about emotions.**

**The survey will take about twenty minutes to complete.**

Before taking part in this study, please read the information below and click in the box at the bottom of the page if you understand the statements and freely consent to participate in the study.

### **What is this survey about?**

- People experience and think about emotions in different ways and you will be asked to answer a series of questions about your own experiences of emotions. We will ask you about difficult and pleasant thoughts and feelings.
- Participation is voluntary. We hope that you will take part so that we can collect information from a wide range of people.
- You may withdraw from the study at any time. If you wish to do so, simply close this window.

### **Completing the survey**

- Please only complete this survey once.
- Most of the questions have multiple choices from which you will be asked to select one answer.
- Do not spend too much time on any one question. We are mostly interested in the pattern of your answers.
- There may be some questions that you find difficult to answer or statements that don't fit with your situation. Please choose an answer that is closest to how you think, feel, or behave.
- We acknowledge that some questions may seem quite repetitive. This is deliberate and an important part of the research as we are comparing new questions to previous ones.
- Please also note that there will be different sets of instructions on each page, so please read them carefully.
- There may be some questions that you find difficult to answer or statements that don't fit with your situation. Please choose an answer that is closest to how you think, feel, or behave.
- If your answers draw attention to any problems that you may be experiencing, we advise you to contact your GP or telephone NHS direct on 0845 4647 to speak directly to a health professional. You can access local mental health support here:

<http://www.mentalhealthmatters.com/helpline>

## APPENDICES

- **The usefulness of this study depends on the frankness and honesty with which you answer the questions. There are no right or wrong answers.**

### **£50 Voucher for Amazon.co.uk**

- If you choose to do so, at the end of the survey you may submit your email address for a chance to win a £50 Amazon voucher.
- Supplying your e-mail address is optional.
- At the end of the survey, you will be asked if you would like a chance to win a further prize by answering more questions in four weeks time. If so, we will contact you via e-mail.
- You may withdraw from the study at any time by simply closing the window. Your answers will not be saved if you choose not to continue.

### **Your Information**

- Any information that you provide will be strictly anonymous and confidential.
- If you provide an email address, this will be stored separately from your data and will be permanently deleted once data have been collected and the vouchers have been claimed.
- We will not ask you for your name, date of birth, address, or any other personally identifying information.
- For data protection purposes any reports we produce will be based on anonymous answers.
- This research is due to be completed in September 2012 and may be published.
- At the end of the survey, you will be asked to indicate whether you would like to be e-mailed a summary report of the main findings.

I am a trainee clinical psychologist and this research forms part of my doctoral qualification. If you have any questions about the study, please contact Maina Amin by email on [M.Amin@emotionsmatter.org.uk](mailto:M.Amin@emotionsmatter.org.uk) or by post at Canterbury Christ Church University, David Salomons Estate, Broomhill Road, Southborough, Tunbridge Wells, United Kingdom, TN3 0TG.

Please check this box if you are over the age of 18, understand the statements above, and freely consent to participate in this study. If you do not wish to continue, simply close this window. \*

I accept

## APPENDICES

### APPENDIX E: BDFS-P Item List

- N1 The feelings will never end.
- N2 I will not be able to cope.
- N3 Something terrible will happen.
- N4 I will go mad.
- N5 I will have a breakdown.
- N6 It will be a waste of time.
- N7 I will not be able to think about anything else.
- N8 I will end up harming myself.
- N9 I will become uncontrollably angry.
- N10 I will feel a failure.
- N11 I will feel unwell.
- N12 Other people will discover what a bad person I am.
- N13 The feelings will get worse and worse.
- N14 I will relapse into previous problems.
- N15 It will be pointless.
- N16 My health will be in danger.
- N17 I will become exhausted.
- N18 I will feel like I am wallowing in self-pity.
- N19 I will embarrass myself.
- N20 I will become completely hopeless.
- N21 Other people will think I can't cope.
- N22 I will start crying and not be able to stop.
- N23 I will end up using alcohol, drugs, or food in excess.
- N24 I will be unable to function normally.
- N25 I will start thinking about killing myself.

## APPENDICES

- N26 Other people will not be able to cope with my feelings.
- N27 I will become emotionally exhausted.
- N28 I will become highly frustrated.
- N29 I will feel bad about myself as a person.
- N30 I will be unable to control my feelings in front of other people.
- N31 I will be completely overwhelmed.
- N32 I will damage my relationships.
- N33 The feelings will become unbearable.
- N34 I will feel like a weak person.
- N35 I will end up doing things that are not healthy for me in order to cope.
- N36 It would be self-indulgent.
- N37 Other people will judge me negatively.
- N38 I will feel humiliated.
- N39 I will not be able to stand it.
- N40 I will not be able to care for others.
- N41 I will hate myself.
- N42 I will be unable to do the things I need to do.
- N43 It will be terrifying.
- N44 Other people will find it very difficult to cope with my reactions.
- N45 It will be a waste of energy.
- N46 I might hurt other people.
- N47 The feelings will get out of control.
- N48 I will feel ashamed.
- N49 Other people will think I am weak.
- N50 I will sink to the bottom of a pit of despair.
- N51 I will be unable to control my urges.
- N52 I will fall apart.

## APPENDICES

- N53 I could become dangerous to other people.
- N54 I will lose control.
- N55 It will damage me psychologically (how I think and feel mentally).
- N56 I will become confused.
- N57 I will act without thinking things through.
- N58 I will experience unwanted memories from the past.
- N59 I will stay with the feeling longer than I should do.
- N60 I will act on the spur of the moment.
- P1 It will help me gain greater understanding of myself.
- P2 It will help me to release my feelings.
- P3 It will help me to express my feelings to others.
- P4 The distressing feelings will be bearable.
- P5 Nothing bad will happen.
- P6 It will improve my ability to cope.
- P7 It will help me grow as a person.
- P8 It will allow others to help me better.
- P9 It will be better for me than trying to suppress them.
- P10 I will remain in control.
- P11 It will help me know how best to handle situations.
- P12 The feelings will pass.
- P13 I will be able to deal with them straight away and then move on.
- P14 I will be able to manage the distress.
- P15 It will help me in the long-term.
- P16 It will help others to understand me better.
- P17 The feelings will work themselves out.
- P18 I will become a stronger person.
- P19 The feelings will not get stored up and cause problems.



## APPENDICES

- P20 It will help me work through problems better.
- P21 It will be ok.
- P22 The feelings will get better by themselves.
- P23 I will know how things are going for me.
- P24 The feelings will die down over time.
- P25 It will help me to work through them.
- P26 I will be able to cope with it.
- P27 It will help keep me in touch with my true self.
- P28 I will continue to feel safe.
- P29 It will help me to heal from difficult experiences.
- P30 It will help me to be more creative.

## APPENDICES

### APPENDIX F: *The Acceptance and Action Questionnaire-II*

This has been removed from the electronic copy.

## APPENDICES

### APPENDIX G: *The Difficulties in Emotion Regulation Scale*

This has been removed from the electronic copy.

## APPENDICES

### APPENDIX H: *The Beliefs about Emotions Scale*

This has been removed from the electronic copy.

## APPENDICES

### APPENDIX I: *The Trait Meta-Mood Scale*

This has been removed from the electronic copy.

## APPENDICES

### APPENDIX J: *The Depression Anxiety and Stress Scales-21*

This has been removed from the electronic copy.

## APPENDICES

### APPENDIX K: *The Five-Facet Mindfulness Questionnaire*

This has been removed from the electronic copy.

## APPENDICES

### APPENDIX L: Ethics Approval Letter

This has been removed from the electronic copy.



APPENDICES

APPENDIX M: Initial Principal Components Analysis solution with 12 components

Proportion of Variance Explained

Total Variance Explained							
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadingsa
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	35.304	39.227	39.227	35.304	39.227	39.227	31.603
2	10.443	11.604	50.831	10.443	11.604	50.831	19.691
3	3.299	3.666	54.497	3.299	3.666	54.497	17.771
4	2.345	2.606	57.103	2.345	2.606	57.103	12.672
5	2.135	2.372	59.475	2.135	2.372	59.475	15.522
6	1.841	2.045	61.520	1.841	2.045	61.520	12.012
7	1.544	1.716	63.236	1.544	1.716	63.236	2.999
8	1.402	1.557	64.794	1.402	1.557	64.794	11.477
9	1.288	1.431	66.225	1.288	1.431	66.225	7.050
10	1.214	1.349	67.574	1.214	1.349	67.574	9.949
11	1.078	1.198	68.772	1.078	1.198	68.772	6.665
12	1.035	1.150	69.923	1.035	1.150	69.923	10.116

The items with loadings greater than 0.4 on each of the 12 components are shown below:

Component 1

- N4            0.955    I will go mad.
- N5            0.943    I will have a breakdown.
- N52          0.898    I will fall apart.

## APPENDICES

N50	0.888	I will sink to the bottom of a pit of despair.
N3	0.832	Something terrible will happen.
N20	0.828	I will become completely hopeless.
N2	0.809	I will not be able to cope.
N39	0.797	I will not be able to stand it.
N33	0.792	The feelings will become unbearable.
N55	0.755	It will damage me psychologically (how I think and feel mentally).
N24	0.747	I will be unable to function normally.
N1	0.734	The feelings will never end.
N8	0.732	I will end up harming myself.
N41	0.73	I will hate myself.
N25	0.713	I will start thinking about killing myself.
N54	0.662	I will lose control.
N42	0.655	I will be unable to do the things I need to do.
N43	0.655	It will be terrifying.
N13	0.636	The feelings will get worse and worse.
N47	0.626	The feelings will get out of control.
N31	0.621	I will be completely overwhelmed.
N7	0.526	I will not be able to think about anything else.
N40	0.522	I will not be able to care for others.
N14	0.519	I will relapse into previous problems.
N16	0.49	My health will be in danger.
N56	0.486	I will become confused.
N9	0.48	I will become uncontrollably angry.
N22	0.478	I will start crying and not be able to stop.

## APPENDICES

N21	0.448	Other people will think I can't cope.
P21	0.448	It will be ok.
N53	0.431	I could become dangerous to other people.
P26	0.403	I will be able to cope with it.

### Component 2

P7	0.938	It will help me grow as a person.
P15	0.934	It will help me in the long-term.
P29	0.899	It will help me to heal from difficult experiences.
P20	0.877	It will help me work through problems better.
P3	0.863	It will help me to express my feelings to others.
P25	0.846	It will help me to work through them.
P18	0.84	I will become a stronger person.
P2	0.833	It will help me to release my feelings.
P8	0.826	It will allow others to help me better.
P27	0.81	It will help keep me in touch with my true self.
P16	0.809	It will help others to understand me better.
P1	0.803	It will help me gain greater understanding of myself.
P9	0.795	It will be better for me than trying to suppress them.
P11	0.793	It will help me know how best to handle situations.
P6	0.79	It will improve my ability to cope.
P19	0.642	The feelings will not get stored up and cause problems.
P30	0.595	It will help me to be more creative.
P23	0.419	I will know how things are going for me.

## APPENDICES

### Component 3

N19	0.742	I will embarrass myself.
N48	0.718	I will feel ashamed.
N37	0.717	Other people will judge me negatively.
N38	0.708	I will feel humiliated.
N12	0.596	Other people will discover what a bad person I am.
N49	0.585	Other people will think I am weak.
N36	0.503	It would be self-indulgent.
N34	0.489	I will feel like a weak person.
N21	0.478	Other people will think I can't cope.
N29	0.402	I will feel bad about myself as a person.

### Component 4

N17	0.773	I will become exhausted.
N27	0.688	I will become emotionally exhausted.
N28	0.574	I will become highly frustrated.
N11	0.562	I will feel unwell.
N16	0.416	My health will be in danger.

### Component 5

## APPENDICES

P22	0.972	The feelings will be better by themselves.
P24	0.87	The feelings will die down over time.
P17	0.702	The feelings will work themselves out.
P12	0.55	The feelings will pass.

### Component 6

N45	0.823	It will be a waste of energy.
N6	0.814	It will be a waste of time.
N15	0.728	It will be pointless.
N36	0.522	It would be self-indulgent.
N1	0.405	The feelings will never end.

### Component 7

N53	0.684	I could become dangerous to other people.
N46	0.552	I might hurt other people.
N8	0.491	I will end up harming myself.

### Component 8

N57	0.848	I will act without thinking things through.
N60	0.836	I will act on the spur of the moment.
N56	0.402	I will become confused.

## APPENDICES

### Component 9

- |     |       |  |
|-----|-------|--|
| N23 | 0.694 | I will end up using alcohol, drugs, or food in excess.                   |
| N35 | 0.484 | I will end up doing things that are not healthy for me in order to cope. |

### Component 10

- |     |      |   |
|-----|------|---|
| N58 | 0.7  | I will experience unwanted memories from the past.    |
| N59 | 0.43 | I will stay with the feeling longer than I should do. |

### Component 11

- |     |       |   |
|-----|-------|---|
| N26 | 0.478 | Other people will not be able to cope with my feelings.             |
| N30 | 0.469 | I will be unable to control my feelings in front of other people.   |
| N44 | 0.498 | Other people will find it very difficult to cope with my reactions. |

### Component 12

- |     |        |   |
|-----|--------|---|
| P3  | -0.407 | It will help me to express my feelings to others. |
| P10 | 0.403  | I will remain in control.                         |
| P30 | 0.413  | It will help me to be more creative.              |

APPENDICES

APPENDIX N: Gender differences on BDFS scores

Gender Differences: Means and Standard Deviations

Group Statistics					
	Sex	N	Mean	Std. Deviation	Std. Error Mean
totalBDFS1	Male	62	23.23	6.696	.850
	Female	242	21.87	7.650	.492
totalBDFS2	Male	62	20.73	6.433	.817
	Female	242	21.79	6.610	.425
totalBDFS3	Male	62	20.53	6.457	.820
	Female	242	19.49	7.315	.470
totalBDFS4	Male	62	11.68	4.609	.585
	Female	242	10.14	4.506	.290
totalBDFS5	Male	62	10.52	3.093	.393
	Female	242	10.02	3.411	.219
totalBDFS6	Male	62	10.03	3.755	.477
	Female	242	9.66	3.719	.239
totalBDFS29	Male	62	96.71	23.845	3.028
	Female	242	92.96	24.100	1.549

APPENDICES

Gender Differences: Independent Samples T Tests

Independent Samples Test								
		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
totalBDFS1	Equal variances assumed	1.274	302	.204	1.354	1.063	-.738	3.445
	Equal variances not assumed	1.378	105.629	.171	1.354	.982	-.594	3.302
totalBDFS2	Equal variances assumed	-1.136	302	.257	-1.063	.936	-2.905	.778
	Equal variances not assumed	-1.155	96.668	.251	-1.063	.921	-2.891	.764
totalBDFS3	Equal variances assumed	1.026	302	.305	1.045	1.018	-.958	3.047
	Equal variances not assumed	1.105	104.833	.272	1.045	.945	-.830	2.919
totalBDFS4	Equal variances assumed	2.392	302	.017	1.541	.644	.273	2.809
	Equal variances not assumed	2.360	93.121	.020	1.541	.653	.244	2.838
totalBDFS5	Equal variances assumed	1.048	302	.295	.500	.477	-.439	1.438



APPENDICES

	Equal variances not assumed	1.111	102.424	.269	.500	.450	-.393	1.392
totalBDFS6	Equal variances assumed	.708	302	.480	.375	.530	-.668	1.419
	Equal variances not assumed	.703	94.009	.483	.375	.533	-.684	1.434
totalBDFS29	Equal variances assumed	1.096	302	.274	3.751	3.423	-2.985	10.487
	Equal variances not assumed	1.103	95.452	.273	3.751	3.402	-3.002	10.504

APPENDICES

APPENDIX O: T-tests of BDFS scores and self-reported psychological/addiction problems

Group differences: Means and Standard Deviations

Key: 1 = self-disclosed psychological/addiction problems

2 = no problems disclosed

<b>Group Statistics</b>					
	Current Self-reported problems	N	Mean	Std. Deviation	Std. Error Mean
totalBDFS1	1	77	15.22	7.093	.808
	2	209	24.87	5.824	.403
totalBDFS2	1	77	19.23	7.334	.836
	2	209	22.48	6.137	.425
totalBDFS3	1	77	14.42	6.338	.722
	2	209	21.74	6.468	.447
totalBDFS4	1	77	7.25	3.293	.375
	2	209	11.69	4.467	.309
totalBDFS5	1	77	8.43	3.518	.401
	2	209	10.72	3.093	.214
totalBDFS6	1	77	8.87	3.830	.436
	2	209	10.00	3.682	.255
totalBDFS29	1	77	73.42	22.621	2.578
	2	209	101.50	20.444	1.414

APPENDICES

Group Differences: Independent Samples T Tests

Independent Samples Test								
		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
totalBDFS1	Equal variances assumed	-11.696	284	.000	-9.650	.825	-11.274	-8.026
	Equal variances not assumed	-10.685	115.838	.000	-9.650	.903	-11.439	-7.861
totalBDFS2	Equal variances assumed	-3.757	284	.000	-3.245	.864	-4.945	-1.545
	Equal variances not assumed	-3.461	117.417	.001	-3.245	.937	-5.101	-1.388
totalBDFS3	Equal variances assumed	-8.542	284	.000	-7.326	.858	-9.014	-5.638
	Equal variances not assumed	-8.623	138.089	.000	-7.326	.850	-9.006	-5.646
totalBDFS4	Equal variances assumed	-7.962	284	.000	-4.442	.558	-5.541	-3.344
	Equal variances not assumed	-9.138	183.197	.000	-4.442	.486	-5.401	-3.483
totalBDFS5	Equal variances assumed	-5.345	284	.000	-2.289	.428	-3.132	-1.446

APPENDICES

	Equal variances not assumed	-5.037	121.839	.000	-2.289	.454	-3.189	-1.389
totalBDFS6	Equal variances assumed	-2.277	284	.024	-1.130	.496	-2.107	-.153
	Equal variances not assumed	-2.236	131.026	.027	-1.130	.505	-2.130	-.130
totalBDFS29	Equal variances assumed	-10.008	284	.000	-28.082	2.806	-33.605	-22.559
	Equal variances not assumed	-9.551	124.501	.000	-28.082	2.940	-33.902	-22.263

## APPENDICES

### APPENDIX P: Executive Summary and Letter to Ethics Panel

#### **Executive Summary: The Development and Initial Validation of the Beliefs about Difficult Feelings Scale (BDFS)**

*Background:* Chronic Emotional Avoidance (EA) has been conceptualised as a trans-diagnostic toxic process functionally associated with several forms of psychological distress. The proximal psychological determinants of EA may include maladaptive beliefs about the consequences of experiencing disturbing emotions.

*Aims:* This study sought to develop the Beliefs about Difficult Feelings Scale (BDFS) to identify and measure individual differences in these beliefs.

*Method:* An initial pool of 90 items was administered online to a general population sample of 304 participants along with other standardised measures. Principal factor analysis was applied to data and the new scale's internal reliability, test-retest reliability, and construct validity were examined using standard statistical procedures.

*Results:* Factor analysis of the pilot BDFS yielded a six-factor solution comprising of the following clusters of beliefs: Catastrophic Beliefs, Emotions are Useful, Negative Evaluation from Others, Emotions are Exhausting/Frustrating, Emotions are Transient and Emotions are Pointless. The scale demonstrated excellent internal consistency overall (Cronbach's  $\alpha = .94$ ) and subscales were also found to be highly internally consistent ( $\alpha > .85$ ). Test-retest reliability, calculated after 4-8 weeks, was based on a subsample of 99 participants. The correlation for the total scale was high ( $r = .79$ ) and correlations for individual subscales were adequate ( $r > .62$ ). With regards to construct validity, all associations between total and BDFS subscale scores were statistically significant ( $p > .05$ ) and strongly correlated with most related measures. Additionally, total BDFS and subscale scores were associated with a measure of depression, anxiety and stress. 25% of the sample reported currently experiencing psychological and/or addiction problems and total and subscale BDFS scores of this subgroup were significantly higher ( $p > .05$ ) than those reportedly not experiencing problems.

*Discussion:* The subscales 'Catastrophic Beliefs' and 'Negative Evaluation from Others' were most psychometrically robust and most strongly associated with both related constructs and psychological symptoms, suggesting that these types of beliefs may play a significant role in maintaining psychological distress or emotional avoidance. Overall, this study successfully produced a multi-dimensional reliable, consistent and valid scale assessing beliefs about the consequences of experiencing difficult feelings in the general population. The BDFS may be suitable for use in a variety of research contexts and as a therapeutic tool to aid in assessing and formulating emotional problems. The scale also adds new information to theories of emotion regulation and avoidance by identifying a number of beliefs that are likely to lead to EA and maintain distress. These results are however preliminary and further work is needed to replicate the scale's factor structure, reliability and validity.

## APPENDICES

### Letter to Ethics Panel

This has been removed from the electronic copy.

## APPENDICES

APPENDIX Q: Publication Guidance: Journal of Cognition and Emotion

### **SUBMISSION OF MANUSCRIPTS:**

New manuscripts should be submitted to *Cognition & Emotion* through our ScholarOne Manuscripts online submission site at: <http://mc.manuscriptcentral.com/pcem>

New users should first create an account. Once a user is logged onto the site submissions should be made via the Author Centre.

If you wish to submit a revision of a manuscript that was not previously submitted through the ScholarOne Manuscripts website, please send your paper and covering letter to Duncan Nicholas at [Duncan.nicholas@psypress.co.uk](mailto:Duncan.nicholas@psypress.co.uk)

Manuscripts that describe only one experiment should typically be submitted as a brief report. The main text of a brief report (including footnotes) should contain no more than 4000 words. Brief reports should include a maximum of two tables or figures and 25 references.

All manuscripts should be submitted in American Psychological Association (APA) format following the latest edition of Publication Manual of the APA (currently 6th edition).

#### **[Ethics and Consent Standards](#)**

#### **[Disclosure of Conflicts of Interest](#)**

**[Copyright](#)** - It is a condition of publication that authors assign copyright or license the publication rights in their articles, including abstracts, to Taylor & Francis. This enables us to ensure full copyright protection and to disseminate the article, and of course the Journal, to the widest possible readership in print and electronic formats as appropriate. Authors retain many rights under Taylor & Francis rights policy.

### **IMAGE COPYRIGHT AND PERMISSION**

**If you use an image from the Internet in your manuscript you will need to find out the status of the image and find out who owns the copyright (this may be the photographer, artist, agency, museum, or library). You will then need to request permission from the copyright holder to reproduce the image in a journal article, in all forms, in perpetuity, worldwide, on the basis that proper attribution and acknowledgment to the copyright holder will be given in the figure caption.**

#### **[Seeking permission to use other sources](#)**

### **FORMAT**

## APPENDICES

**Typescripts.** The style and format of the typescripts should conform to the specifications given in the *Publication Manual of the American Psychological Association* (5th edition).

Typescripts should be double spaced, Times New Roman font size 12, with adequate margins, and numbered throughout. The title page of an article should contain only:

- (1) the title of the paper, the name(s) and address(es) of the author(s);
- (2) a short title not exceeding 40 letters and spaces, which will be used for page headlines;
- (3) name and address of the author to whom correspondence and proofs should be sent;
- (4) your telephone, fax and e-mail numbers, as this helps speed of processing considerably.
- (5) up to six keywords.

**Abstract.** An abstract of 100-150 words should follow the title page on a separate page. Search engine optimization (SEO) is a means of making your article more visible to anyone who might be looking for it. [Please consult our guidance here.](#)

**Headings.** Indicate headings and subheadings for different sections of the paper clearly. Do not number headings.

**Acknowledgements.** These should be as brief as possible and typed on a separate page at the beginning of the text.

**Permission to quote.** Any direct quotation, regardless of length, must be accompanied by a reference citation that includes a page number. Any quote over six manuscript lines should have formal written permission to quote from the copyright owner. It is the author's responsibility to determine whether permission is required from the copyright owner and, if so, to obtain it. (See "[Seeking permission to use other sources](#)" for a template letter to use when seeking copyright permission.)

**Footnotes.** These should be avoided unless absolutely necessary. Essential footnotes should be indicated by superscript figures in the text and collected on a separate page at the end of the manuscript.

### References

**Reference citations within the text.** Use authors' last names, with the year of publication, e.g., "(Brown, 1982; Jones & Smith, 1987; White, Johnson, & Thomas, 1990)". On first citation of references with **three to five** authors, give all names in full, thereafter use [first author] "et al.". In the references, the first **six** authors should be listed in full.

If more than one article by the same author(s) in the same year is cited, the letters a, b, c, etc., should follow the year. If a paper is in preparation, submitted, or under review, the reference should include the authors, the title, and the year of the draft (the paper should also be cited throughout the paper using the year of the draft). Manuscripts that are "in press" should also include the publisher or journal, and should substitute "in press" for the date.

**Reference list .** A full list of references quoted in the text should be given at the end of the paper



## APPENDICES

in alphabetical order of authors' surnames (or chronologically for a group of references by the same authors), commencing as a new page, typed double spaced. Titles of journals and books should be given in full, e.g.:

*Books:* Rayner, E., Joyce, A., Rose, J., Twyman, M., & Clulow, C. (2008). *Human development: An introduction to the psychodynamics of growth, maturity and ageing* (4th ed.). Hove, UK: Routledge.

*Chapter in edited book:* Craik, F. I. M., Naveh-Benjamin, M., & Anderson, N. D. (1998). Encoding processes: Similarities and differences. In M. A. Conway, S. E. Gathercole, & C. Cornoldi (Eds.), *Theories of memory* (Vol. 2, pp. 61–86). Hove, UK: Psychology Press.

*Journal article:* Adlington, R. L., Laws, K. R., & Gale, T. M. (2009). The Hatfield Image Test (HIT): A new picture test and norms for experimental and clinical use. *Journal of Clinical and Experimental Neuropsychology*, *31*, 731–753. doi:10.1080/13803390802488103

**Tables.** These should be kept to the minimum. Each table should be typed double spaced on a separate page, giving the heading, e.g., "Table 2", in Arabic numerals, followed by the legend, followed by the table. Make sure that appropriate units are given. Instructions for placing the table should be given in parentheses in the text, e.g., "(Table 2 about here)".

**Figures.** Figures should only be used when essential and the same data should not be presented both as a figure and in a table. Where possible, related diagrams should be grouped together to form a single figure. Each figure should be on a separate page, not integrated with the text. The figure captions should be typed in a separate section, headed, e.g., "Figure 2", in Arabic numerals. Instructions for placing the figure should be given in parentheses in the text, e.g., "(Figure 2 about here)".

For more detailed guidelines see [Preparation of Figure Artwork](#) .

**Statistics.** Results of statistical tests should be given in the following form:

"... results showed an effect of group,  $F(2, 21) = 13.74$ ,  $MSE = 451.98$ ,  $p < .001$ , but there was no effect of repeated trials,  $F(5, 105) = 1.44$ ,  $MSE = 17.70$ , and no interaction,  $F(10, 105) = 1.34$ ,  $MSE = 17.70$ ."

Other tests should be reported in a similar manner to the above example of an F -ratio. For a fuller explanation of statistical presentation, see *APA Publication Manual* (6th edition).

**Abbreviations.** Abbreviations that are specific to a particular manuscript or to a very specific area of research should be avoided, and authors will be asked to spell out in full any such abbreviations throughout the text. Standard abbreviations such as RT for reaction time, SOA for stimulus onset asynchrony or other standard abbreviations that will be readily understood by readers of the journal are acceptable. Experimental conditions should be named in full, except in tables and figures.

## AFTER ACCEPTANCE

## APPENDICES

### [Checking Proofs](#)

### [Copy-editing](#)

#### **Free article access**

As corresponding author, you will receive free access to your article on Taylor & Francis Online. You will be given access to the *My authored works* section of Taylor & Francis Online, which shows you all your published articles. You can easily view, read, and download your published articles from there. In addition, if someone has cited your article, you will be able to see this information. We are committed to promoting and increasing the visibility of your article and have provided [this guidance](#) on how you can help.

#### **Reprints and journal copies**

Corresponding authors can receive a complimentary copy of the issue containing their article. Article reprints can be ordered through Rightslink® when you receive your proofs. If you have any queries about reprints, please contact the Taylor & Francis Author Services team at [reprints@tandf.co.uk](mailto:reprints@tandf.co.uk). To order extra copies of the issue containing your article, please contact our Customer Services team at [adhoc@tandf.co.uk](mailto:adhoc@tandf.co.uk).

#### **Open access**

Taylor & Francis Open Select provides authors or their research sponsors and funders with the option of paying a publishing fee and thereby making an article permanently available for free online access – *open access* – immediately on publication to anyone, anywhere, at any time. This option is made available once an article has been accepted in peer review. [Full details of our Open Access programme](#).



Visit our [Author Services website](#) for further resources and guides to the complete publication process and beyond.

## APPENDICES

### APPENDIX R: Criteria for the inclusion and exclusion of papers for Section A

A literature search of journal articles was conducted in January 2012 using the Psychinfo, Ebscohost, Cochrane and Science Direct databases with the keywords emotional or experiential AND avoidance. 130 articles met these criteria and were reviewed in full with the aims of extracting information relating to the proximal psychological determinants of Emotional/Experiential Avoidance (EA) using the following strategy.

First a table was constructed to summarise and categorise the literature according to the principal aims of the articles in question (see extract below).

<b>GOLD = Establishing EA as a mediating factor in various forms of psychopathology and specific groups in non-clinical samples (e.g. unemployed, MSM), as well as comparing with other constructs</b>
<b>TURQUOISE = Comparing and contrasting EA with other psychological constructs and theoretical papers</b>
<b>TAN = Using EA as an outcome measure to evaluate the effectiveness of therapeutic interventions</b>
<b>BRIGHT GREEN = Development and validation of measures to determine individual differences in EA</b>
<b>LAVENDAR = Statistical or Imaging studies of EA and related concepts/psychopathology</b>
<b>ROSE = Laboratory experiments of EA</b>
<b>Grey = Does not meet search criteria</b>

Domain-General and Domain-Specific Strategies for the Assessment of distress intolerance	MCHugh & Otto (2011)	Distress intolerance and substance abusers: used Anxiety Sensitivity Index, Discomfort Intolerance Scale, Distress Tolerance Scale, Frustration Discomfort Scale. Conclude that distress intolerance is a transdiagnostic variable and other relevant variables include emotions regulation, EA.	Y	N	Y
Effects of Parents' Experiential Avoidance and PTSD on Adolescent	Polusney et al. (2011)	this study tested a conceptual model of the interrelationships between individual and parental risk factors on adolescents' disaster-related PTSD symptoms using structural equation modeling. Results showed that the psychological process of experiential avoidance mediated the relationship between family disaster exposure and PTSD for both adolescents and their parents. Parents' PTSD symptoms independently predicted adolescents' PTSD symptoms.	Y	N	Y
Effects of Worry on Physiological and Subjective Reactivity to Emotional in GAD and non-anxious controls	Llera & Newman (2010)	Thirty-eight participants with generalized anxiety disorder (GAD) and 35 nonanxious control participants were randomly assigned to engage in worry, relaxation, or neutral inductions prior to sequential exposure to each of four emotion-inducing film clips. Results indicate that worry (vs. relaxation) led to reduced vagal tone for the GAD group, as well as higher negative affect levels for both groups. This suggests that worry may facilitate avoidance of processing negative emotions by way of preventing a negative emotional contrast. Used the Perception of Threat from Emotion Questionnaire	Y	Y?	Y

APPENDICES

Efficacy of an Acceptance-Based Behavior Therapy for GAD in an RCT	Roemer et al. (2008)	Acceptance-based behavior therapy led to statistically significant reductions in clinician-rated and self-reported GAD symptoms that were maintained at 3- and 9-month follow-up assessments; significant reductions in depressive symptoms were also observed. As predicted, treatment was associated with decreases in experiential avoidance and increases in mindfulness. Used AAQ and MAAS	Y	N	Y
Emotion regulation and vulnerability to depression spontaneous vs instructed use of emotion suppression and reappraisal	Ehring et al. (2010)	In this study, we tested the hypothesis that depression vulnerability is related to difficulties with emotion regulation by comparing recovered-depressed and never-depressed participants ( $N = 73$ ). As predicted, suppression was found to be ineffective for down-regulating negative emotions, and recovered-depressed participants reported to have spontaneously used this strategy during the first sadness-inducing film more often than controls. However, the groups did not differ regarding the effects of induced suppression versus reappraisal on negative mood. These results provide evidence for a role for spontaneous but not instructed emotion regulation in depression vulnerability. Used ERQ and DERS	Y	N	Y
Experiential avoidance as a generalized psychological vulnerability: Comparisons with coping and emotion regulation strategies	Kashdan et al (2006)	Extending previous work, we conducted two studies concerning the toxic influences of experiential avoidance (EA) as a core mechanism in the development and maintenance of psychological distress, and disruption of pleasant, engaging, and spontaneous activity. The present data show that cognitive reappraisal, a primary process of traditional cognitive-behavior therapy, was much less predictive of the quality of psychological experiences and events in everyday life compared with EA. Further consideration of experiential avoidance as a generalized diathesis and toxic process will be useful in improving our understanding of the etiology, phenomenology, and treatment of anxiety conditions, general human suffering, and disruptions in hedonic capacity.	Y	Y	Y
Experiential Avoidance as a mediator of relationships between cognitions and hair-pulling severity	Norberg et al. (2007)	This study assessed dysfunctional beliefs about appearance, shameful cognitions, and fear of negative evaluation and their relation to hair-pulling severity in a sample of individuals self-reporting a diagnosis of TTM. Results showed significant correlations between these cognitions and hair-pulling severity; however, relations diminished or disappeared when controlling for experiential avoidance, a tendency to avoid or escape from unwanted private events. These findings suggest that treatments targeting cognitions may benefit from focusing on experiential avoidance more broadly. <b>Doesn't talk specifically about EA related cognitions though.</b>	Y	Y?	Y
Human avoidance and approach learning: Evidence for overlapping neural systems and experiential avoidance modulation of avoidance neurocircuitry	Schlund et al (2011)	Consequently, we used functional magnetic resonance imaging (fMRI) to compare changes in brain activation associated with human avoidance and approach learning and modulation of avoidance neurocircuitry by experiential avoidance. These findings suggest avoidance and approach learning recruit a similar fronto-limbic-striatal network in healthy adults. Increased experiential avoidance also appears to be associated with reduced frontal and limbic reactivity in avoidance, establishing an important link between maladaptive avoidance coping and altered responses in avoidance neurocircuitry.	Y	N	Y

## APPENDICES

This process revealed that much of the literature focused on establishing EA as a mediating factor in various forms of psychopathology (74 articles), comparing and contrasting EA with other psychological constructs (18 articles), using EA as an outcome measure to evaluate the effectiveness of therapeutic interventions (11 articles), and developing and validating measures to determine individual differences in EA (11 articles). Some recent studies explored EA using experimental methods (13 articles) and brain imaging techniques (3 articles).

The principal aim of the articles in the first category, establishing EA as a mediating factor in psychopathology, was to assess whether scores on measures of EA were related to the presence or severity of symptoms examined (e.g. hair pulling severity). The majority of these papers did not speculate on the underlying factors that might have been driving EA with some exceptions, for example those investigating trauma (Polusney et al., 2011), obsessive compulsive disorder (Wheaton, Abramowitz, Franklin, Berman & Fabricant, 2011) and anxiety (Berman et al., 2010). As such, much of the literature in this category was omitted from the review. Similarly, articles using EA as an outcome measure to evaluate the effectiveness of therapeutic interventions and those utilising statistical or brain imaging techniques to investigate EA also rarely commented on its origins and were hence excluded. Surprisingly, many of the articles describing the development and validation of measures of EA also rarely commented on its proximal psychological factors, focusing instead on the types of behaviours and strategies employed to facilitate emotional avoidance. Exceptions were Gamez et al. (2011), Mitmansgruber et al. (2009) and Gratz and Roemer (2004) which were selected for inclusion.

Literature comparing and contrasting EA with other psychological or theoretical constructs did however hypothesise about the proximal psychological determinants of EA. Studies utilising rigorous empirical rather than self-report measures of EA were selected for detailed inclusion, as well as some articles examining links between EA and various emotion regulation strategies (e.g. Campbell-Sills et al., 2006; Kashdan et al., 2006).

In an attempt to speculate on the psychological drivers of EA, theoretical articles pertaining to the underpinnings of Acceptance and Commitment Therapy (e.g. Hayes, 2004; Luoma & Hayes, 2003) were extremely useful. A body of evidence from Cognitive Behaviour theorists also discussed the potential proximal determinants of EA (e.g. Forsyth et al., 2003; Gratz et al., 2008) and papers relevant to this argument were included.

## APPENDICES

### APPENDIX S: Steps taken to generate and check BDFS items

In order to construct a scale with items describing potential beliefs about tolerating difficult feelings, a multi-theoretical perspective was taken based on evidence in the literature reviewed in Section A and Section B of this report. It was deemed important to include beliefs about the possible physical, behavioural, psychological and social consequences of engaging with distressing emotional experiences, beliefs regarding other people’s perceptions of or reaction to one’s own emotions, as well as positive or adaptive beliefs about the utility or value of staying with difficult feelings.

Two brainstorming sessions with my supervisors were held to generate an initial pool of 83 items according to categories of beliefs. For example “I might hurt other people”, “I will damage my relationships” and “I will not be able to care for others” reflected fears that approaching one’s emotions could damage others in some way, or “I will not be able to cope”, “I will not be able to stand it” and “I will be completely overwhelmed” pertained to fears about one’s own ability to tolerate emotional distress. These were followed up by individual brainstorming and sharing ideas via e-mail. Many items were included per category to ensure that its salient aspects were captured using different wording (see Table 1). Both positive (Part 1) and negative (Part 2) items were produced.

*Table 1: Item list from brainstorming sessions*

#### **Part 1.**

<b>If I allow myself to stay with difficult feelings or emotions ....</b>	Agree very much	Agree moderately	Agree slightly
The feelings will never end The feelings will get worse and worse The feelings will become unbearable The feelings will get out of control			
I will not be able to cope I will not be able to stand it I will be completely overwhelmed			
Something terrible will happen It will be terrifying I will lose control My health will be in danger			

APPENDICES

I will go mad			
I will have a breakdown			
I will fall apart			
I will sink into a spiral of despair			
I will become completely hopeless			
I will start crying and not be able to stop			
I will physically collapse			
I will become exhausted			
I will become emotionally burnt out			
I will start thinking about killing myself			
I will end up harming myself			
I will be unable to function normally			
I will be unable to do the things I need to do			
I will not be able to think about anything else			
It will be a waste of time			
It will be a waste of energy			
It will be pointless			
It would be self-indulgent			
I could become dangerous to other people			
I will become uncontrollably angry			
I will become highly frustrated			
I might hurt other people			
I will damage my relationships			
I will not be able to care for others			
Other people will not be able to cope with my feelings			
Other people will find my reactions very difficult			

APPENDICES

Other people will judge me negatively Other people will think I am weak Other people will think I can't cope Other people will discover what a bad person I am			
I will be unable to control my feelings in front of other people I will embarrass myself I will feel ashamed I will feel humiliated			
I will feel a failure I will feel bad about myself as a person I will like a weak person I will feel like I am wallowing in self-pity I will hate myself			
I will be unable to control my urges I will end up doing unhealthy things in order to cope I will end up using alcohol, drugs, or food in excess I will relapse into previous problems			

**Part 2.**

<b>If I allow myself to stay with difficult feelings or emotions ....</b>	Totally agree	Agree very much	Agree slightly
---	---------------	-----------------	----------------



APPENDICES

<p>I will know how things are going for me</p> <p>It will help me gain greater understanding of myself</p> <p>It will help me grow as a person</p> <p>It will improve my ability to cope</p> <p>I will become a stronger person</p> <p>It will help keep me in touch with my true self</p> <p>It will help me work through problems better</p> <p>It will help me know how best to handle situations</p> <p>It will help me in the long-term</p> <p>It will help me to heal from difficult experiences</p>			
<p>It will help me to release my feelings</p> <p>It will help me to process them</p> <p>It will be better for me than trying to suppress them</p> <p>The feelings will not get stored up and cause problems</p> <p>I will be able to deal with them straight away and then move on</p>			
<p>It will help me to express my feelings to others</p> <p>It will help others to understand me better</p> <p>It will allow others to help me better</p>			
<p>The feelings will die down over time</p> <p>The feelings will pass</p> <p>The feelings will decrease naturally of their own accord</p> <p>The feelings will work themselves out</p>			

APPENDICES

<p>The distressing feelings will be bearable          I will be able to cope with it</p> <p>I will be able to manage the distress</p> <p>I will continue to feel safe</p> <p>I will remain in control</p> <p>It will be ok</p> <p>Nothing bad will happen</p>			
---	--	--	--

This initial item pool was then subject to two consultations. The first involved sending the scale and participant instructions via e-mail to 11 non-psychologists with a request for individual feedback. The second consultation was jointly undertaken by two service users from the Salomons Advisory group of Experts by Experience (SAGE). Both had experienced mental health difficulties and once consultant had a specific learning difficulty. Comments from both consultations were collated and led to the construction of the final pilot version of the BDFS containing 90 statements (60 negative and 30 positive; see Appendix E).