



<http://researchspace.auckland.ac.nz>

ResearchSpace@Auckland

Copyright Statement

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

This thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of this thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from their thesis.

To request permissions please use the Feedback form on our webpage.

<http://researchspace.auckland.ac.nz/feedback>

General copyright and disclaimer

In addition to the above conditions, authors give their consent for the digital copy of their work to be used subject to the conditions specified on the [Library Thesis Consent Form](#) and [Deposit Licence](#).

Note : Masters Theses

The digital copy of a masters thesis is as submitted for examination and contains no corrections. The print copy, usually available in the University Library, may contain corrections made by hand, which have been requested by the supervisor.

The Transdiagnostic Approach to Anxiety Treatment in an Education and Support Group Setting

Miriam Tamara Barr

A thesis submitted in fulfillment of the
requirements for a Master of Arts in Psychology,
The University of Auckland, 2009

Abstract

The transdiagnostic approach to anxiety treatment focuses on processes shared across diagnostic categories. Negative affectivity (NA) may represent an area of core pathology joining the anxiety disorders, mood disorders and the schizophrenia spectrum. Treatments aimed at improving NA-related factors amongst diagnostically heterogeneous groups appear to be almost as effective as diagnosis-specific treatments. This thesis presents the results of an idiographic, multiple-baseline evaluation of Engage, which applied the transdiagnostic approach to a group education and support setting for people with heterogeneous anxiety and mental disorder. 100% of participants said they found the programme useful, 62.50% of the participants showed improved anxiety severity post-intervention and at follow-up and 62.50% of participants showed improved mental-disorder severity post-intervention. However, at follow-up only 33.33% of participants showed an improvement in mental-disorder severity. Transdiagnostic support programmes may be beneficial to people with a variety of anxiety problems and a range of diagnoses, though not as much as full transdiagnostic treatment protocols. While anxiety improvements were maintained over time, the transdiagnostic effects on untargeted mental disorder were not maintained for those participants who were medicated throughout the programme. These findings are discussed in light of other research pertaining to effective treatments and support programmes and the impact of medication upon treatment generalisation. Conclusion: The transdiagnostic approach may have utility for the schizophrenia spectrum. Transdiagnostic education and support may be a useful adjunct or pre-cursor to treatment. Medication may interfere with transdiagnostic intervention effects.

Acknowledgements

Above all, I would like to thank the study participants for their trust and daring.

I must acknowledge Youthline for making this study possible by funding Engage and providing me with a setting and assistants. In particular, my thanks to Kirk Vette, Teresa Frazerhurst, Jo Garnett and Stephen Bell in this respect. I offer my sincere thanks to Kelly Thomas and Amber Davies for co-facilitating Engage with me.

My sincere thanks to my supervisor, Glynn Owens, who pushed me to stand on my own two feet and back myself. Finally, thank you to Daniel Larsen, Elizabeth Wilson, Jonathon Mills, Murray Lee and Christian Jensen for reviewing and commenting on my epic drafts when they were already so busy.

Contents

Acknowledgements	iii
1 Introduction	1
1.1 Conceptualisation	1
1.2 Anxiety	4
1.2.1 Anxiety: Function & Process	5
1.2.2 Anxiety Disorders	12
1.2.3 Typical Anxiety Treatment	18
1.3 The Transdiagnostic Approach	32
1.3.1 Transdiagnostic Treatments	32
1.3.2 In Search of Core Pathology	36
1.3.3 Overlap across the Anxiety Disorders	38
1.3.4 Overlap Between Diagnostic Categories	61
2 The Engage Intervention	83
3 The Present Study	87
3.1 Method	87
3.1.1 Design	87
3.1.2 Recruitment	88
3.1.3 Participants	89
3.1.4 Intervention	90
3.1.5 Measurement	91
3.2 Results	95
3.2.1 Participant Evaluation of Intervention Acceptability	95
3.2.2 Personal Questionnaires – Items Tracked	96
3.2.3 Personal Questionnaire Results	100
3.2.4 Diary Card Results	106
3.3 Discussion	108
3.3.1 Evidence of Elements of Core Pathology	108
3.3.2 Intervention Acceptability	111
3.3.3 Changes in Anxiety Severity	113
3.3.4 Anxiety Change, Type of Anxiety & Primary Diagnosis	116
3.3.5 Changes in Untargeted Mental-Disorder Severity	119
3.3.6 Untargeted Mental-Disorder Change and Primary Diagnosis	122
3.3.7 Medication Effects	123
3.4 Conclusions	125
4 Appendix One – Engage Programme Outline	138
5 Appendix Two – Diary Card Graphs	141
6 Appendix Three – DSM-IV-TR Diagnostic Criteria	147
7 References	164

List of Figures

Fig 1: Plutchik’s Complex Chain of Events Defining an Emotion	11
Fig 2: Overall Anxiety & Mental-Disorder Scores.....	103
Fig 3: A Transdiagnostic Model of Mental Disorder	128
Fig 4.1: Daily Self-Reported Anxiety Levels Over Time.....	141
Fig 4.2: Daily Self-Reported Anger Ratings Over Time.....	142
Fig 4.3: Daily Self-Reported Shame Ratings Over Time	143
Fig 4.4: Daily Self-Reported Pain Ratings Over Time.....	144
Fig 4.5: Daily Self-Reported Sadness Ratings Over Time.....	145
Fig 4.6: Daily Self-Reported Joy Ratings Over Time	145

List of Tables

Table 1: Engage Sample Demographic	91
Table 2: Participant Group Evaluation Data	95
Table 3: Engage Participant Group Descriptors	96
Table 4: Items Tracked on Anxiety-Related Section of Personal Questionnaires.....	97
Table 5: Items Tracked on Mental-Disorder Related Section of Personal Questionnaires.....	99
Table 6: Overall Anxiety and Mental-Disorder Scores	101
Table 7: Personal Questionnaire Results for Anxiety Scores	104
Table 8: Personal Questionnaire Results for Mental-Disorder Scores.....	105

List of Abbreviations

AS	Anxiety Sensitivity
CBT	Cognitive Behaviour Therapy
DSM-III/IV	Diagnostic and Statistical Manual of Mental Disorders – Third /Fourth Edition
GAD	Generalised Anxiety Disorder
GP	General Practice (medical) doctor
MD	Mental disorder
NA	Negative Affectivity
NCS	National Comorbidity Survey
NCS-R	National Comorbidity Survey Replication
NZMHS	New Zealand Mental Health Survey
OCD	Obsessive-Compulsive Disorder
PD	Panic disorder
PQ	Personal Questionnaire
PTSD	Posttraumatic Stress Disorder
SSRI(s)	Selective Serotonin Reuptake Inhibitor(s)

1 Introduction

1.1 Conceptualisation

Psychology has long occupied itself with classifying and categorising the multifarious phenomena it observes among the human population's diverse subgroups, and necessarily so. Psychology has catalogued the components of mental well-being, the different forms of dysfunction and the factors that contribute to them. This categorical approach to treatment has its advantages. However, confining treatments to diagnostic groups means that recovery-based services exclude some groups. For example, in 2007, Google and phone book searches for anxiety treatment groups in Auckland city yielded only two results in total, both with eligibility criteria that excluded anyone with schizophrenia-spectrum diagnoses. The categorical approach has led psychology away from what people have in common, and psychology has become pre-occupied with individual differences. Transdiagnostic psychology attempts to reverse that emphasis, proposing that the common ground is just as important and provides an equally effective treatment target within more efficient, inclusive delivery methods (Andrews, 1996; Taylor & Clark, 2009; Mansell, Harvey, Watkins & Shafran, 2009).

The transdiagnostic approach does not offer a new way of thinking about psychological disturbance (see, Ellis, 1962). Elements of transdiagnostic models are apparent in numerous anxiety and depression prevention programmes (Dozois, Seeds & Collins, 2009). The cognitive model has long made such claims as, "distorted or dysfunctional thinking ... is

common to all psychological disturbances,” (Beck, 1995, 1) and the cognitive-behavioural model is used to understand and treat psychological disorders from every diagnostic category. A prominent behaviour therapist and researcher states, “psychotherapeutic change at all levels, *including the cognitive*, is subserved by essentially the same learning mechanisms” (Wolpe, 1987a, p 101, emphasis added) and while neither Skinner (1938) nor Beck would have phrased it thus, their formulations are in a way also transdiagnostic conceptualisations of psychological disorder. Researchers have long noted that their behavioural treatment protocols for anxiety disorders appear to be associated with changes in the symptoms of untargted depression (Emmelkamp & Kuipers, 1979), and untargted social phobia, somatic complaints and symptoms of OCD (Hand, Angenendt, Fischer, & Wilke, 1986) as well as in the symptoms they were specifically targeting. The transdiagnostic approach grows out of such research showing the effectiveness of similar treatment protocols for different disorders, high rates of comorbidity and symptom overlap (Mansell et al., 2009: See sections 1.2.2, 1.2.3, 1.3.3 and 1.3.4).

The transdiagnostic approach does not attempt to explain away individual differences in the expression of psychological disorders. The approach acknowledges that the content of symptoms is variable but recognises that the functions and/or underlying processes, which give rise to that content, are often similar (Andrews, 1996). A central tenet is that if these shared processes and functions are treated, their various manifestations will also improve. While the transdiagnostic approach is very much a newborn in a number of ways, thus far,

there is compelling evidence to support this central tenet, predominantly in the area of anxiety and other mood disorders. Anxiety disorders share many characteristics both with each other (see sections 1.2.2 and 1.3.3) and other mood disorders (see section 1.3.4.1), and potentially with a wider range of diagnostic categories such as the schizophrenia-spectrum disorders with emotional aspects (see section 1.3.4.2).

The transdiagnostic approach to group treatments yields similar results to diagnosis-specific group CBT (See section 1.2.3). Because transdiagnostic treatments offer more efficient means of delivering treatments to a wider range of people at the same time they may provide a means of bridging the gap between research and practice (Erickson, Janeck & Tallman, 2009) and may provide useful prevention targets (Dozois, et al., 2009). There are four main lines of enquiry:

1. that multiple processes are shared amongst a limited range of diagnoses, such as vigilant-avoidant processes across the anxiety disorders (Norton, 2006);
2. that multiple processes are shared amongst a universal or near-universal range of diagnoses such as negative affectivity (NA) across the mood and anxiety disorders (Barlow, Allen & Choate, 2004);
3. that symptoms are shared across diagnostic categories (Persons, 1986); and
4. that single processes such as self-focused attention (Ingram, 1990) and ruminative thinking (Watkins, 2008) are shared across a universal range of disorders (Mansell, et al., 2009).

Each of these approaches to the research of transdiagnostic processes fits in harmony with the others, contributing to an overall set of evidence suggesting that diagnostic categories share a great deal. Some research extends these views to include the schizophrenia spectrum (Bentall, Rouse, Kinderman, et al., 2008), eating disorders (Wade, Bergin, Martin, Gillespie & Fairburn, 2006; Fairburn, Cooper & Shafran, 2003) and possibly somatoform disorders (Barlow, et al., 2004), lending weight to the possibility of near universal, multiple process theories.

This thesis is concerned with problematic anxiety and the Engage intervention, which applies the transdiagnostic approach to an education and support programme. The main aim is to investigate whether it is warranted to combine people with anxiety, depression and schizophrenia-spectrum disorders in one intervention, and whether the results of transdiagnostic treatments would be observed with a transdiagnostic support programme.

1.2 Anxiety

To discuss the transdiagnostic approach to anxiety it is first necessary to discuss anxiety itself. Consideration of similarities in the processes involved in each of the anxiety disorders requires a sense of what the function of 'normal' anxiety might be. The result is a path from 'normal' anxiety, which conceivably everyone experiences, to disordered anxiety in its many forms.

1.2.1 Anxiety: Function & Process

Anxiety is an emotion. Emotions are “subjective reaction[s] to a salient event, characterized by physiological, experiential and overt behavioural change,” (Sroufe, 1995, 15). These responses set up a “behavioural disposition that prepares an organism to act,” (Antony & Barlow, 1996, 57), potentially independent of “the will ... and to a certain extent of habit” (Darwin, 1872, 28). The subcortical structures involved in emotion generation are able to operate independently of higher cortical structures, allowing the emotion system to guide behaviour without the need for conscious analysis, which would become overwhelming if it was required of us all the time (Green & Malhi, 2006; Youngstrom & Izard, 2008). Thus, conscious cognitive processes exist inside an “unconscious envelope filtering both input and output in [potentially] distorting ways” (Ohman, 1987, 253, brackets added). Some emotional processes and behaviours may start out as conscious but become unconscious and automatic with repetition (Freud, 1895/1957) and reinforcement (Wolpe, 1996).

Emotions are associated with particular cognitive states, which when cued in even a minor way are elicited in their full form (Darwin, 1872). In the broadest sense, positive emotions such as happiness and enjoyment are triggered by stimuli indicating survival gains and negative emotions such as anxiety and anger are triggered by stimuli indicating threats to survival. Survival itself is a broad construct concerned with physical and social issues ranging from physical health, breeding and mortality to social acceptance-related constructs

like self-image, control and status. Emotions serve to motivate behaviour towards and away from stimuli that trigger these survival concerns.

In this way, emotions mediate the person-environment relationship (Sroufe, 1995). Developing in infancy out of a number of undifferentiated distress and non-distress states (Bridges, 1932, in Sroufe, 1995), these learned responses to internal and external stimuli (Wolpe, 1952), do not take emerge until the infant has first learned to distinguish between the self and the environment (Sroufe, 1995). The environment acts on the individual and the individual acts on the environment (Folkman, Lazarus, Gruen, & DeLongis, 1986) and by modulating that transaction, emotions serve an evolutionary function (Plutchik, 2000). When the anxiety system developed, the survival concerns of the average human being were very different from what they are now. People needed to be able to run away, freeze to avoid detection by predators and fight them off if necessary. Anxiety evolved to motivate those responses. In the twenty-first century, the survival concerns of the average human being do not often necessitate fight, flight or freezing. However, anxiety continues to motivate individuals to prepare for and respond to potential threats, thus ensuring their ongoing survival (Beck, Emery & Greenberg, 1985; Jeffers, 1989).

In this conceptualisation, anxiety is a form of action potential, where a certain intensity of the emotion will give rise to some form of approach or avoidance tendency aimed at survival. Towards that end, anxiety is comprised of perceptions of threat, physiological

arousal and some form of behavioural response. Beck et al. (1985) describe anxiety as being a function of the perceived degree of threat combined with the perceived degree of threat-manageability. Estimations of controllability, personal resources and probable outcomes are all crucial to perceptions of threat-manageability.

The cognitive-behavioural model of emotions builds on this conceptualisation by postulating that the threat perceptions that give rise to anxiety are the result of unconscious information processing or cognitive appraisal. This appraisal system relies on rapidity for effectiveness. It utilises a number of heuristics, often based on experiences, the belief systems they reinforced, and a relatively basic set of stimulus attributes deemed to signify threat (Ohman, 1987). To detect a threat erroneously is much less hazardous than to detect no threat when one is indeed present. Consequently, the cognitive appraisal system is biased towards false-positives and prone to mistakes (Ohman, 1987).

Cognitive appraisal is further broken down into primary and secondary appraisal stages. Primary appraisal is concerned with evaluating which aspects of an environment are relevant to the individual's survival (Folkman et al., 1986). As such, primary appraisal is an appraisal of stakes, detecting situational elements that the individual has investment in or with relevance for a personal goal (Kenrick & Shiota, 2008). The more an individual thinks they have at stake in a particular situation, the greater the impact on psychological and physical wellbeing (Folkman, et al., 1986). Examples of self-relevant goals include resource

acquisition, self-protection, co-operative alliance formation, status enhancement, finding (and keeping) a mate, and caring for family or offspring (Kenrick & Shiota, 2008). The perception of threat to any of these goals would prime the set of subjective experiences and physical responses associated with the anxiety response.

Secondary appraisal follows on with interpretations of an individual's capacity to cope with (or survive) the threat that their primary appraisal system has detected (Folkman, et al., 1986). In secondary appraisal, the individual evaluates the coping strategies available to them and which ones are likely to be most effective in preventing harm (Folkman et al., 1986), in this way, secondary appraisal is concerned with threat manageability. Options include withdrawal, modifying the situation, accepting the status quo, looking for more information, waiting to act and/or seeking help. Physical arousal and mood states triggered during primary appraisal become stimuli of interest in the secondary appraisal stage. Secondary appraisal gives rise to behavioural responses that modify the situation and reinforce or weaken the cognitions and responses that motivated them (Wolpe, 1952).

When threat and threat-manageability perceptions are accurate, the emotion and the arousal it entails are highly useful as they motivate individuals away from threatening stimuli. The arousal of the sympathetic nervous system rapidly recruits defence mechanisms to provide energy, and is essentially unpleasant in order to provide an impetus to act (Barlow, 2000; Ohman, 1987). Physical responses associated with anxiety include heart-rate

increase, muscle tension, and rapid breathing. Attention necessarily narrows to promote preferential processing of the threat-relevant stimuli so that the individual becomes vigilant for threat-cues. These responses may be so mild that they are barely noticeable, or they can be so intense that they are experienced as symptoms of heart attack, suffocation and choking. By way of a process known as conditioned suppression, the presence of previously aversive items can inhibit learned behaviour (Arcediano, Matute & Miller, 1997). This can reduce the competence with which the anxious individual is able to complete the task at hand and further amplify threat perceptions and anxious responding. Physiological arousal may in turn form cues that help to shape perception of situational meaning and response selection (Ohman, 1987), in a continual interaction between biology, context (past and present), meaning assignment (cognition), behaviour, and emotions (Greenberg, 2004).

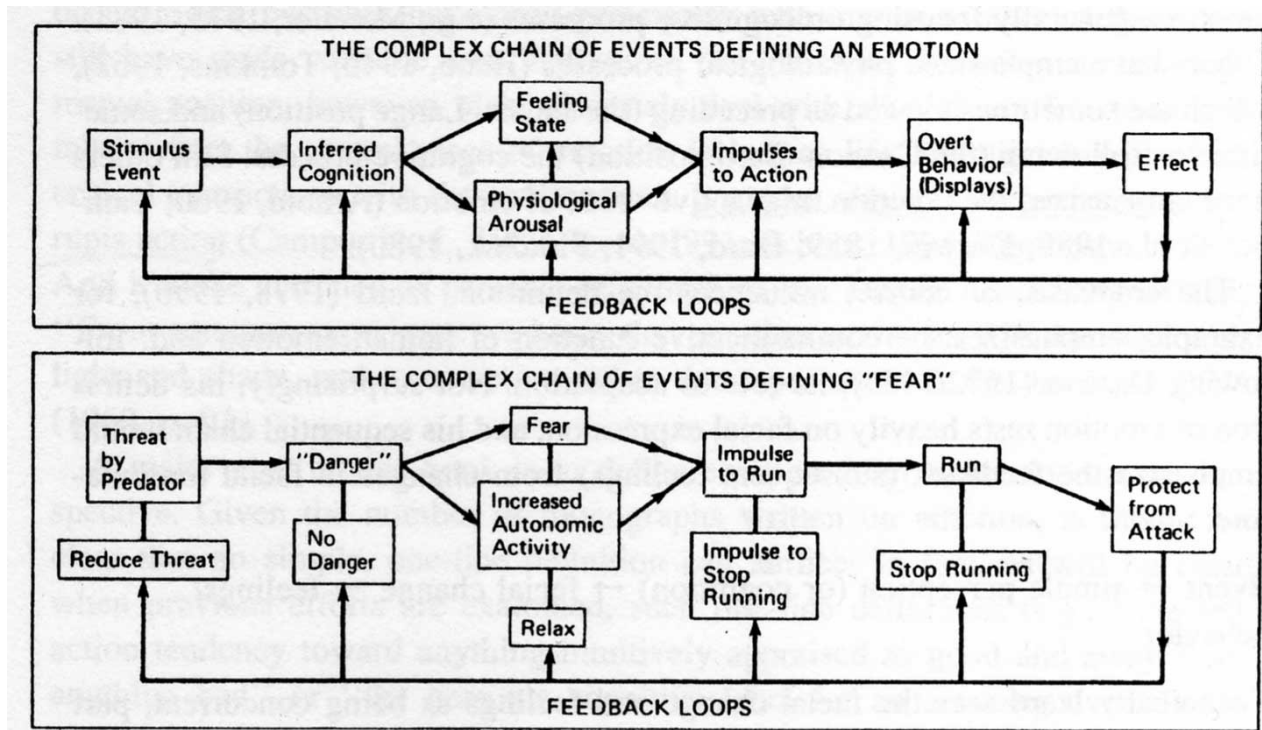
Beyond the primary and secondary appraisal stages, there appears to be a series of reappraisals that allow for further understanding of the cueing stimulus, protective factors and the formulation of coping strategies. There is no end-point to this process of appraisal; individuals engage in appraisals of their appraisals. When it comes to emotions, things are not always linear (Plutchik, 2000). While most models present a neat, sequential state of affairs (see Fig 1), the systems involved in the generation of emotion appear to take place in parallel (Plutchik, 2000). At the same time as emotion is generated, the individual is attempting to regulate it.

The individual can regulate emotion at the information processing level (antecedent-focused strategies) and at the coping, behavioural level (response-focused strategies; Gross, 1998; Olatunji, Forsyth, & Feldner, 2007). Primary and secondary cognitive appraisal describes much of what is encompassed by antecedent-focused regulation. They involve the way in which incoming information is processed, and govern the set-up of an emotional experience, determining such things as situation selection or modification, meaning assignment and attention distribution (Olatunji et al., 2007). On the other hand, response-focused emotion regulation involves strategies that prolong, shorten, intensify, diminish or shutdown the subjective experience of emotion, its expression or the physical responses associated with it (Gross, 1998). Response-focused regulation comes into play once the response tendencies involved with the emotion have already been triggered (during the antecedent phase of the process). The strategies employed in these attempts can involve such things as verbal communication, suppression, avoidance, confrontation, distancing, self-control, seeking support, accepting responsibility, escape, and planned problem solving (Gross & John, 2003; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986).

Some forms of regulation are associated with increased rates of anxiety rather than decreases, particularly response-focused strategies that limit the individual's contact with the anxiety-producing stimulus (Gross & John, 2003). Such strategies serve to stall adaptation by preventing the individual from learning more about the stimulus and whether their responses were accurate. The consequences of the behavioural responses reinforce or weaken

the interpretations and heuristic processes that lead to the generation of the response, such that people can form a pattern of reacting to anxiety that is maintained by their own responses (Wolpe, 1996).

Fig 1: Plutchik's Complex Chain of Events Defining an Emotion
 (For emotion in general and for fear: Plutchick, 2000, 68).



NB: Primary appraisal matches with "Inferred Cognition" and secondary appraisal with "Impulses to Action."

1.2.2 Anxiety Disorders

Disordered anxiety experiences are disproportional to environmental cues and impair individual functioning and well-being. The DSM-IV-TR (American Psychiatric Association [APA], 2000) describes nearly a dozen different anxiety diagnoses not related to medical conditions or substance use. These include panic disorder (PD) with agoraphobia, PD without agoraphobia, agoraphobia without history of panic, specific phobia, social phobia, obsessive-compulsive disorder (OCD), posttraumatic stress disorder (PTSD), acute stress disorder, and generalised anxiety disorder (GAD). See Appendix Two for the DSM-IV diagnostic criteria for the anxiety disorders. Each of these anxiety disorders represents a cluster of distinguishable symptoms; however, there is a degree of overlap between them.

While all involve anxiety, the focus of the anxiety involved in each disorder is one of the main distinguishing features. Specific phobias, for example, represent anxiety in relation to a specific object. Social phobia represents anxiety related to social situations. Agoraphobia represents anxiety in relation to places from which escape is difficult. PTSD and acute stress disorder represent anxiety in relation to experiences of trauma and GAD represents broad-spectrum anxiety and chronic worry (APA, 2000). Reflecting the differences in content, there are distinguishing symptoms for each of these disorders. Panic attacks are characterised by intense physical sensations and fear or terror. Agoraphobia is characterised by avoidance of particular places. OCD is characterised by obsessions that lead to anxiety and compulsive

behaviours aimed at decreasing that anxiety. PTSD is characterised by the repeated re-experiencing of a traumatic event, long after its cessation, accompanied by symptoms of arousal and avoidance. GAD is characterised by persistent and excessive anxiety and worry for more than 6 months. Intensified anxiety experiences and the decreased functioning that accompanies them are central features of all of these disorders (APA, 2000).

Anxiety disorders are costly at both an individual and a societal level. A decade ago, the annual cost of anxiety in the United States of America was an estimated \$42.3 billion (\$1542 per sufferer; Greenberg, Sisitsky, Kessler, et al., 1999). Quality of life studies reveal significant disruptions in a number of different domains (Hansson, 2002; Mendelowicz & Stein, 2000; Magee et al., 1996; Kessler, Chiu, Demler, & Walters, 2005b; Kroenke, Spitzer, Williams, Monahan and Lowe, 2007; Vega et al., 1998; Waghorn & Chant, 2006). Experiences of mental-health related discrimination may be highly common for people diagnosed with a psychological disorder (Peterson, Pere, Sheehan & Surgenor, 2006). Moreover, a large proportion of people with psychiatric diagnoses experience fear of discrimination and report that their fear prevents them doing such things as apply for a job (Peterson et al., 2006). Anticipatory fear such as this, would by definition, likely involve some form of anxiety; coping with anxiety is thus potentially important for anyone with diagnosed psychological disorder.

Results from large-scale community prevalence studies consistently demonstrate that the anxiety disorders are the most prevalent class of psychological disorder. Lifetime prevalence estimates fall between 24.9% (DSM-III; Kessler, McGonagle, Zhao, et al., 1994; Vega, Kolody, Aguilar-Gaxiola, et al., 1998; DSM-IV; Oakley Browne, Wells, Scott & McGee, 2006a; Wells, Oakley Browne, Scott, et al., 2006a) and 28.8% (DSM-IV; Kessler, Berglund, Demler, et al., 2005a). Anxiety disorders also appear to be more prevalent in women than in men over their lifetimes (Kessler et al., 2005a; Kessler, et al., 2005b; Kessler et al., 1994; Kessler, Sonnega, Bromet, Hughes & Nelson, 1995; Magee, Eaton, Wittchen, McGonagle & Kessler, 1996; Vega, et al., 1998). Anxiety disorders typically have an early onset preceding 13-years of age, particularly simple and social phobias and separation anxiety (Kessler, et al., 2005a). Lifetime anxiety prevalence gradually increases with age until it peaks at 30-44 years of age and then begins a steady decline (Kessler, et al., 2005a; Oakley Browne, et al., 2006a). Twelve-month prevalence rates reflect similar patterns, with the anxiety disorders again being the most prevalent class of disorder in the previous twelve months (Henderson, Andrews & Hall, 2000), ranging from 14% (DSM-IV; NZ; Wells, Oakley Browne, Scott, et al., 2006b) to 26.2% (DSM-IV; USA; Kessler, et al., 2005b) among large-scale community samples.

As well as being highly prevalent, the anxiety disorders are highly comorbid, both with each other and with other diagnostic categories (Magee et al., 1996; Scott, et al., 2006a; Turner, Beidel, Borden, Stanley, & Jacob, 1991; Zimmerman, McDermet & Mattia, 2000). One study showed that 51% of participants with PD had at least one additional diagnosis (Brown,

Antony & Barlow, 1995). In another, the majority of people with one of the three most common phobias tended to have at least one other comorbid disorder (Magee et al., 1996). Comorbidity may have a negative impact on treatment outcome (Brown & Barlow, 1992); however, evidence suggests that is not always the case (Brown, et al., 1995). Comorbidity is not particular to the anxiety disorders. Comorbidity among general psychological disorders is similarly high; 27.7% of respondents from large-sample community studies have two or more diagnoses and 17.3% have three or more (The National Comorbidity Survey Replication [NCS-R]; Kessler, et al., 2005a). The New Zealand Mental Health Survey (NZMHS) sampled 12, 992 people and found that 61.4% of the disorders diagnosed occurred in people with two or more disorders, suggesting that the majority of psychological disorders are comorbid ones (Scott, McGee, Oakley Browne & Wells, 2006a). Anxiety and other psychological disorders are also highly comorbid with physical illness (Kroenke et al., 2007; Levy, Maserko, Bauer, Richman, & Kubansky, 2007; Scott, et al., 2006a; Scott, Oakley Browne, McGee & Wells, 2006b), which may help to explain why people with anxiety disorders (or any psychological disorder) utilise more medical services than nonclinical controls (Greenberg, et al., 1999).

In addition, the literature supports the view that there are issues with the accessibility of effective specialised mental-health treatments, leading to a reliance on medical and alternative services for mental-health concerns. A large proportion of people with anxiety disorders do not receive treatment (40% – 89% no treatment; Wang, Anguilar-Gaxiola,

Alonsa, et al., 2007; 57.8% no treatment: Wang, Lane, Olfson, et al., 2005; 41% no treatment: Kroenke, et al., 2007). Less severe anxiety disorders are even less likely to receive treatment (Wang, et al., 2007). Among the NZMHS subjects, as severity decreased, so did the proportion of people receiving treatment; only 39.8% of New Zealand subjects with moderately severe symptoms, and 22.2% of New Zealand subjects with mildly severe symptoms receive any treatment (Wang et al., 2007).

Furthermore, the majority of services people access is not specialised mental health treatments (Kessler et al., 1994). A large-scale World Health Organisation study involving 17 different countries showed that people usually access general medical services for mental-health treatment (Wang et al., 2007). In one study, only 21.7% of people receiving treatment received specialised mental-health treatment (Wang et al., 2005). Among the 12-month anxiety disorder cases identified in the NZMHS, 39.4% had accessed any treatment in the preceding twelve-month period, 16.7% had received treatment from a mental-health service and 28.4% had accessed treatment from a general medical service (Oakley Browne, Wells & McGee, 2006b). In New Zealand general-practice settings, 93% of people who receive an explicit general medical practice doctor (GP) diagnosis for a DSM-IV disorder receive treatment from a GP only (Bushnell, McLeod, Dowel, Salamond & McBain, 2006).

Medication is the most common form of treatment with 71% – 89.4% of subjects with anxiety disorder diagnoses receiving medication. Only 23.3% – 56.2% of the sample who had anxiety disorders received counselling or discussion from their GP doctor. GP doctors referred only

7.4% – 24.3% of subjects with anxiety disorders to a mental health specialist. The rates of treatment provision were similar for subjects with depression and substance disorders (Bushnell, et al., 2006). There are many reasons why people do not access specialised treatments. These include, but are not limited to, a lack of knowledge about treatability and treatment options and embarrassment and concerns about side effects (Stein, Wessels, Zungu-Dirwayi, Berk & Wilson, 2001; Tynes, Salins, Skiba, & Winstead, 1992). Fewer stigmas are likely associated with visiting a GP than there are visiting a psychotherapist. Visiting a medical doctor also tends to cost a lot less than many specialised mental health services. Accessibility of specialised mental health treatments is undoubtedly a barrier in the implementation of effective anxiety treatment; transdiagnostic protocols may offer a solution to such barriers.

1.2.3 Typical Anxiety Treatment

Typical anxiety treatments can be divided into cognitive, behavioural and pharmacological approaches. They are more often implemented in concert than they are in isolation, with the exception of pharmacological treatments, which (as outlined in section 1.2.2) tend to be used as the sole, first-line treatment in the anxiety disorders. Both group and individual approaches tend to utilise a range of techniques designed to correct cognitive deficits, reverse stalled learning processes, and promote effective behavioural responding – the content that is targeted may be different for different populations, but the treatments’ targeted functions remain largely the same.

1.2.3.1 Individual Cognitive-Behavioural Therapy

This section examines individual cognitive-behaviour therapy (CBT) for the anxiety disorders. The Engage intervention utilises CBT-informed psychoeducation. Inherent in the CBT approach to treatment, is an assumption that psychological disorder involves dysfunctional cognitions and dysfunctional behaviours, which serve to maintain each other. Similar to the transdiagnostic model, CBT approaches also propose that the same sort of process underlies all disorder, and allow for multiple different forms of content, input and consequence. However, typical CBT differs from the transdiagnostic approach by targeting each of the factors that are particular to the diagnosis at hand.

CBT combines elements of cognitive therapy with elements of behavioural therapy. Central cognitive therapy techniques are cognitive reappraisal and thought records, diary cards, cognitive restructuring, Socratic interviewing and evidence gathering (Beck, 1995). Other techniques have been added over the years, including mental imagery and visualisation (Holmes, Geddes, Colom & Goodwin, 2008), attention training (Schmidt, Richey, Buckner & Timpano, 2009), expressive writing (Cameron & Nicholls, 1998) and mindfulness (Roemer & Orsillo, 2007; Brown, Ryan & Creswell, 2007), yielding a range of cognitive therapy variants with equivalent outcomes (DiGuiseppe, McGowan, Simon & Gardner, 1990).

On the other hand, behavioural treatment focuses on the processes of operant conditioning (Skinner, 1938; Wolpe, 1997), extinction, and the responses involved in the learning and maintenance of anxiety disorders. Exposure, either gradual or prolonged, features in all behavioural treatment strategies except for relaxation training. Relaxation training has been demonstrated to be a helpful addition to treatment; but when implemented alone appears to be similar to no treatment at all (Barlow, Craske, Cerny & Klosko, 1989; Butler, Fennell, Robson & Gelder, 1991). Critical to all behavioural approaches, is the individual's survival of the conditioned stimulus (e.g. a spider) without the occurrence of the unconditioned stimulus (e.g. spider bite) is (King & Tonge, 1992). Exposure can be interoceptive, in vivo or imaginal. Interoceptive exposure involves inducing feared bodily sensations (Wald & Taylor, 2008). In vivo exposure involves direct confrontation of the

feared object or situation (King & Tonge, 1992). Imaginal exposure refers to visualised exposure to the anxiety-producing stimulus (Taylor, Pham, Rivkin, & Armor, 1998). Each of these procedures has its advantages (e.g., Armfield, 2008; Bryant, Moulds, Guthrie, et al., 2008), but they also appear to have equivalent outcomes at follow-up (Wolitzky-Taylor, Horowitz, Powers & Telch, 2008).

Although the particular form of behavioural treatment may differ depending on diagnosis, it targets the same principles and processes in each instance. Variants of behavioural treatments have been successful in treating a moderate proportion of people with just about every form of anxiety disorder, (Coffey, Stasiewicz, Hughes & Brimo, 2006; Lee, et al., 2006; Wolpe, 1987b; Hand, 2000; Cox, Endler, Lee & Swinson, 1992; de Beurs, van Balkom, Lange, Koele, & van Dyck, 1995; Gelder, 1979; Franklin, Abramowitz, Kozak, Lewitt & Foa, 2000; Grayson, Foa & Steketee, 1986; Muris, Mayer, & Merckelbach, 1998; Buchanan & Houlihan, 2008; Egbochuku & Obodo, 2005; Wald & Taylor, 2005; Wald & Taylor, 2008).

While behavioural methods have produced recovery for many people, a large number of participants do not respond to the treatments. The same can be said of cognitive therapy, (Bryant, Moulds & Guthrie, 2001; Craigie, Rees, Marsh & Nathan, 2008; Wells & King, 2006; Siev & Chambless, 2007; Wells, 1990; Schmidt et al, 2009; Emmelkamp, Visser & Hoekstra, 1988; Resick, 2001).

While they each have their advantages (e.g., Durham & Turvey, 1987; Hofmann, Moscovitch, Kim & Taylor, 2004; Wolitsky-Taylor, et al., 2008), studies show that the efficacy of behavioural and cognitive techniques is largely the same (Emmelkamp, Visser, & Hoekstra, 1988) and may increase when they are employed together in CBT (Fedoroff & Taylor, 2001; Bryant et al., 2008; Butler et al., 1991). CBT focuses on altering distorted patterns of thinking and ineffective behavioural efforts. The theory supposes that both past and present behaviour influences and is influenced by these distorted ways of thinking (Beck, et al., 1985). The landmark techniques are cognitive restructuring coupled with exposure (either graduated, in-vivo or simulated). The literature widely accepts that CBT “Should be considered a first-line option” for treatment (Simon & Pollack, 2000, 692) and the vast majority of the psychological treatments presented in the literature have Cognitive-Behavioural underpinnings or are offshoots with a slightly different focus. For example, Interpersonal Therapy (IPT; Lipsitz, Gur, Vermes, et al., 2008), Emotion-focused Therapy (Greenberg, 2004), Family-based Therapy (Van Noppen, 2002; Storch, Geffken, Merlo, et al., 2007), Acceptance-based Therapy (Roemer & Orsillo, 2007), mindfulness-based approaches (Craigie, et al., 2008), and internet-based programmes (Billings, Cook, Hendrickson & Dove, 2008) all incorporate efforts that reflect elements of CBT, and are associated with modest to large improvements in the severity of a range of anxiety disorders.

Studies have shown CBT to be effective for over 80% of participants with PD (Barlow et al., 1989; Stuart, Treat and Wade, 2000) and over 70% of participants with childhood OCD

(Storch et al., 2007). Multiple large-scale meta-analyses (Mitte, 2005; Norton, & Price, 2007) and controlled studies support this picture of CBT as an effective treatment with medium to large effect sizes for most people with every form of anxiety disorder and mixed anxiety-depression (Moras, Telfer & Barlow, 1993). Some people show reductions in severity at the post-treatment evaluation point, and for others reductions in severity do not become apparent until follow-up (E.G. Moras, et al., 1993; Storch et al., 2007) or even later (Beck, 1995). Additionally, it seems that some disorders, such as PTSD and GAD may respond more favourably than others do (Norton & Price, 2007). However, the efficacy of CBT and its components has been well established across the anxiety disorders (Bryant & Friedman, 2001; Norton & Price, 2007; Butler, Chapman, Forman, & Beck, 2006). Some studies have suggested that the components of CBT are associated with much the same results as the full CBT protocols are (Bryant & Friedman, 2001); however, others have found that CBT outperforms its parts in terms of treatment maintenance and continued improvement during follow-up (Fedoroff & Taylor, 2001; Hofmann, 2004). CBT appears to be associated with reductions in symptom severity (Marchand, Todorov, Borgeat, & Pelland, 2007), worry, stress, avoidance, untargeted depression and fear of negative emotions (Roemer & Orsillo, 2007), attentional biases, perfectionism (Lundh & Ost, 2001) and decreased healthcare utilisation (Roberge, Marchand, Reinharz, et al., 2005).

Thus, data from a multitude of studies indicate that individual CBT is effective for most participants, across all of the anxiety disorders. These studies also indicate that

individual CBT is more effective than pharmacotherapy and may be more effective than either of its components alone is. For this reason, individual CBT is widely held to be the best treatment for anxiety disorders, regardless of diagnostic category, making CBT amenable to a transdiagnostic approach to treatment.

1.2.3.2 Pharmacological Treatments

For thousands of years Japanese people have used Kampo Medicine, a range of plants with anxiolytic effects, to reduce anxiety-related difficulties such as panic, generalised anxiety and insomnia (Mantani, 2006). In the 21st century, pharmacological treatments for anxiety typically involve the use of benzodiazepines and Selective Serotonin Reuptake Inhibitors (SSRIs).

Studies show large effect sizes associated with the use of SSRIs (Bryant, & Friedman, 2001; Asakura, Tajima, & Koyama, 2007) and benzodiazepines (Simon & Pollack, 2000) for every form of anxiety disorder. The benzodiazepines are associated with greater effects than SSRIs (Fedoroff & Taylor, 2001), but SSRIs have a more enduring effect than benzodiazepines (Muller, Koen, Seedat & Stein, 2005). These medications have been associated with larger effects than cognitive restructuring and exposure, both alone and in tandem (Fedoroff & Taylor, 2001). However, only the psychological therapies evidence continued improvement during follow-up (Fedoroff & Taylor, 2001) and both forms of medication are associated with

relapse of symptoms following discontinuation for around 50% of participants (Davidson, Londberg, Bernstein, et al., unpublished study cited in Bryant & Friedman, 2001; Simon & Pollack, 2000; Fontaine, Chouinard, & Annable, 1984). Their efficacy is brought into considerable question; a truly effective treatment ought to result in outcomes that are maintained over time once the treatment has concluded. It appears therefore, that while benzodiazepines are effective in reducing anxiety symptoms, psychological therapies have more long-term results.

Additionally, both sets of medication involve multiple unwanted side effects, which are intolerable to a majority of people (Simpson, Schneier, Campeas, et al., 1998; Simon & Pollack, 2000; Fontaine, et al., 1984; Howland, 2007). A large portion of people treated with medication for anxiety believes that in the end a nonpharmacological treatment was the most effective (Page, Jones & Wilson, 2004). Some studies show CBT to be more effective while others show pharmacotherapy to be more effective, though an analysis of the combined effect sizes reveals no significant difference between the approaches (Mitte, K., 2005). However, pharmacological treatments tend to have higher dropout rates and to be less well accepted by participants than CBT (Mitte, K., 2005).

Pharmacological treatments are extremely widely used (see section 1.2.3.2). For example, one behavioural therapist notes that 94% of their patients seeking treatment for agoraphobia were taking benzodiazepines (Wardle, 1990). Concurrent benzodiazepine use

may enhance behavioural therapy outcomes when taken several hours prior to exposure sessions and are starting to wear off, possibly by aiding the habituation process (Wardle, 1990). This effect is only noted when the benzodiazepines are beginning to wear off – when behavioural treatment participants take medication immediately prior to exposure sessions or when they take the medication all the time, they have higher rates of relapse after behavioural treatment (Wardle, 1990).

Research and clinical observation suggest that the concurrent use of benzodiazepines (Sanderson & Wetzler, 1993) and SSRIs (Arch & Craske, 2007), during CBT is associated with decreased outcomes. People who participate in CBT who are already taking SSRIs prior to treatment tend to have less improvement on agoraphobic symptoms, anxiety sensitivity and PD severity at post-treatment than people who are not taking SSRIs (Arch & Craske, 2007). Similarly, people who participate in CBT and receive concurrent Tricyclic medication (Imipramine) have much higher relapse rates than people doing CBT and taking a placebo pill do (Raffa, Stoddard, White, et al., 2008). CBT is believed to achieve its effect via exposure to anxiety. Medications may prevent the participant from experiencing the full mood-state and some researchers recommend the withdrawal of concurrent benzodiazepines in the first phases of exposure (Sanderson & Wetzler, 1993). It may be that the effect of taking medication during treatment impairs the processes of extinction as well as generalisation of the treatment effects to the non-drug state. It may also be that rebound effects associated with withdrawal from medication could be interfering with gains made during treatment.

Whatever the case, when medication is being used, participants frequently appear to attribute treatment effects to the medication, while in CBT they are more often attributed to the self (Sanderson & Wetzler, 1993), though occasionally to the therapist or group facilitator (Erickson, Janeck & Tallman, 2009).

A similar pattern emerges repeatedly – medication is effective in ameliorating symptoms, but does not tend to have a long-term benefit for many people or is associated with unwanted side effects. Meta-analyses consistently demonstrate that CBT is more effective in the long-term, than medication alone or medication-plus-CBT (Simon & Pollack, 2000). That said, the use of the same medications across different diagnoses within each of the mood disorder and schizophrenia spectrum categories, suggests that medical approaches to treatment are also similar across diagnoses.

1.2.3.3 Group Cognitive-Behaviour Therapy

Group-based treatments offer more efficient treatment delivery gains by allowing practitioners to offer treatment to groups of people with the same disorders simultaneously. Given the gaps in treatment accessibility and utilisation, this is an important consideration. Data from multiple studies show that group-based treatments yield good treatment outcomes for many (but never all) of their participants. Some evidence exists to suggest that group-settings enhance individual behavioural treatment effects (Hand, Lamontagne, & Marks, 1974), however a number of studies have failed to replicate this finding and yielded

equivocal outcomes (EG: Fals-Stewart, Marks & Schafer, 1993; Hafner & Marks, 1976; see Hand, 2000 for a behavioural review). Group cohesion may be an important variable mediating any enhancement of treatment outcome via group processes (Hand, 2000).

Group and individual approaches mostly tend to yield similar outcomes (Juarietta, Jimenez-Murcia, Alonso, et al., 2008), but the individual modality has faster effects, which may maintain for longer (Anderson & Rees, 2007; Neron, Lacroix, & Chaput, 1995). While the individual and the group modalities are associated with equivalent reductions in panic attack frequency, at six-month follow-up more of the individual CBT participants maintain a 'remission status' than those who receive group CBT (Neron, et al., 1995). This pattern of results has been replicated with PD with agoraphobia (Sharp, Power & Swanson, 2004). A majority of the participants report preferring the individual modality to the group modality (Sharp, et al., 2004). This could be because the group modality can trigger an anxiety response, particularly in people with socio-evaluative concerns. Other studies have shown that where group cohesion is high, group-based behaviour therapy is more effective than the individual modality (Hand et al., 1974). It may be that if group protocols for CBT also include strategies to enhance group cohesion, the outcomes associated with them would also improve.

Group CBT has been effective in treating people with social phobia (Hofmann, 2004; McEvoy & Perini, 2009), PD (Carter, Sbrocco, Gore, Marin & Lewis, 2003; Sharp, et al., 2004),,

OCD (Whittal, Robichaud, Thordarson, & McLean, 2008), PD with agoraphobia (Galassi, Quercioli, Charismas, Niccolai, & Barciulli, 2007; Rosenberg & Hougaard, 2004), and PTSD (Giannopoulou, Dikaiakou, & Yule, 2006; Beck, Coffey, Foy, Keane & Blanchard, 2009). The group-CBT approach has also been used with children who have symptoms of depression and anxiety, where reductions were noted in the severity of both symptom-sets in eight children, (Friedberg, McClure, Wilding, et al., 2003), supporting the application of the transdiagnostic approach to group-CBT.

Most group-CBT approaches exclude participants with schizophrenia-spectrum disorders. The literature does not discuss the reasons for this exclusion, with research paper authors simply asserting that schizophrenia was an exclusion criterion. Presumably, group treatments exclude people with schizophrenia because researchers and treatment providers believe their inclusion will disrupt group processes or that they have higher needs and therefore require a separate treatment. Group-CBT does appear to be effective for treating anxiety in people with schizophrenia and people with schizophrenia do appear to be capable of taking part in a group treatment programme (Halperin, Nathan, Drummond & Castle, 2000).

Thus, group-based CBT appears to be effective for the treatment of nearly every anxiety disorder for a majority of people. It is clear also that both individual and group CBT approaches have employed the same techniques in the treatment of the same array of

diagnostic categories, adding to evidence that these approaches target transdiagnostic processes. Group CBT may not be as well maintained, or as quick to achieve results as individual CBT. Thus, where individual CBT remains the first line choice in the treatment of anxiety disorders, group-based approaches, with their enhanced efficiency and cost-effectiveness, should come in close second.

1.2.3.4 Support Groups

Where CBT is based around processes of exposure, habituation and extinction, the support group is based on concepts of community, normalisation and psychoeducation. Support groups provide participants with a source of empathy and understanding, opportunities to identify with other people, and access to information, which can provide useful precursors or additions to other treatments (Zvolensky, Mulen, Lejuez, & McNeil, 1999). People who take part in Alcoholics Anonymous-like groups after other treatments tend to have lower rates of relapse (Moos, Schaefer, Andrassy & Moos, 2001). Therefore, support groups may also be advantageous in assisting participants to maintain treatment effects after treatment discontinuation. Support groups are less specialised than full treatment protocols and it is not always necessary for them to be clinician-led. In fact, support groups are frequently peer-led.

Demographic studies indicate that people taking part in support groups can have a range of different problems and high rates of comorbidity (Segee, Maguire, Ross, et al., 1999), potentially making the study of such groups difficult to interpret. This suggests that support groups may already be transdiagnostic to a certain extent, albeit inadvertently. They also frequently include exclusion criteria for people with schizophrenia, though they have been utilised for the families of people with schizophrenia (Posner, Wilson, Kral, Lander & McIlwraith, 1992). Outcome studies about support group interventions for anxiety are thin on the ground, largely based on self-report and offer rather mixed results. Support groups can utilise a wide range of different approaches and formats, and comparisons between support group studies should be made with caution. It is rare to find an article that explicates upon precisely what the support group they are evaluating involves. In contrast, treatment outcome studies provide relatively detailed accounts of their treatment procedures. A support group could be practitioner-led or participant-led, in person or on the internet, structured or unstructured, and include psychoeducation or no psychoeducation. The main difference between group CBT treatments and education-support groups tends to be the inclusion of exposure techniques and a specific focus on ameliorating cognitive distortion (Heimberg, Dodge, Hope, et al., 1990). Where the group-CBT protocol includes exposure and cognitive restructuring techniques, the Education-Support protocol includes neither in an explicit fashion. Education-Support programmes may provide information about these two factors but do not include methods explicitly aimed at enacting them.

Support groups have been associated with decreased isolation (McMahon, 1990) as well as improvements in self-image, self-esteem, (Berry & Letendre, 2004) and symptom severity in depression and anxiety (Gustave-Bochner, 2008; Larsen, 2005; Heimberg et al., 1990; Wetherall, Gatz, & Craske, 2003). As satisfaction with the amount of social support increases, the amount of anxiety experienced decreases (Meyers, 2005). The improvements do not appear to be as pronounced as they are for CBT (Heimberg et al., 1990; however, one study finds no significant differences between group CBT and a support group (Wetherall, et al., 2003). Studies suggest that people enjoy taking part in support groups and find the sharing of information to be helpful (Posner, et al., 1992; Stein, et al., 1992). The participants of support groups report that they provide information about treatment options, counsel, support and kindness and rate the modality second only to the help received by specialised mental health professionals (Stein, et al., 2001). This suggests that the support group format may be enhanced if specialised professionals delivered it. Nonetheless, anxiety support groups may help participants to resolve barriers to accessing effective treatment (Stein et al., 2001). Support groups may therefore be useful pre-cursors to other empirical treatments.

Psychoeducation and support groups provide opportunities for participants to learn information, access alternative perspectives, form connections with people who face similar difficulties and express their experiences to others. The support group may also provide an opportunity for exposure to anxiety under favourable conditions, one of the central processes in CBT. However, this author has not found any research concerning support groups as an

opportunity for exposure. While support groups do not appear to be associated with recovery from mental disorder, they offer many advantages, which may enhance other treatment aims and prevent relapse. While outcome data is limited in availability, participants consistently report finding support groups helpful in dealing with anxiety and a wide range of other problems.

1.3 The Transdiagnostic Approach

Thus far, it is apparent that the anxiety disorders co-occur with each other and with other psychological and physical disorders at a very high frequency. CBT outperforms each of its components when the same amount of time is allocated to each (Bryant & Freidman, 2001), and is better maintained than pharmacological treatments. These same treatments are used for different disorders with relatively the same effects. This all provides evidence for the validity of treating the wide array of anxiety disorders together with a focus on areas of shared pathology and common processes rather than on diagnostic differences that relate mainly to content.

1.3.1 Transdiagnostic Treatments

Transdiagnostic treatments focus on general dimensions known to be relevant across the disorders (Mansell et al., 2009) and place the onus on the individual to tailor the strategies and information to their own specific content, with assistance when needed (Norton & Philipp, 2008). Helping individual subjects to individualise the treatment strategies should

ensure that transdiagnostic approaches to treatment remain responsive to participant needs. Transdiagnostic treatments are not really treatments in their own right, but involve the application of already empirically evaluated treatments to a diagnostically heterogeneous group. Thus far, most of the transdiagnostic treatments implement modified group-CBT. Transdiagnostic group treatments tend to be eight to twelve weeks in duration, with weekly two-hour sessions (See, Norton & Phillip, 2008). Transdiagnostic treatments have most widely been used in the treatment of mixed-anxiety disorder groups and mixed depression and anxiety groups. If disorders do share a common pathology then the expectation is that treating one will lead to improvements in both.

Evidence emerging from investigations of heterogeneous anxiety disorder treatments suggests that the anxiety disorders respond favourably to transdiagnostic treatment (Norton & Hope, 2005; Lumpkin, Silverman, Weems, Markham & Kurtines, 2002; Norton, 2008; Norton & Hope, 2008). Transdiagnostic treatments yield results that are similar to the results obtained from homogeneous groups and individual CBT approaches, with significant reductions on a variety of anxiety measures (McEvoy & Nathan, 2007; Norton & Hope, 2008). Results suggest that the outcome of transdiagnostic treatments is significantly different from the outcomes observed in wait-listed control groups; 66% of one treatment group no longer met the criteria for an anxiety disorder at post-treatment and all of the control group still did (Norton & Hope, 2005). Few of the studies examining transdiagnostic treatment protocols have compared treatment effects across diagnostic categories. Preliminary evidence appears

to suggest that anxiety diagnosis does not affect treatment outcome (Norton, 2008). One of the treatments included in Norton & Philipp's (2008) meta-analysis excludes people with PTSD and/or OCD (Larkin, Waller & Combs-Lane, cited in Norton & Philipp, 2008). There was only a very weak difference in the outcome of a programme excluding PTSD and OCD compared to those that included them (Norton & Philipp, 2008). If anything, greater heterogeneity appears to be associated with improved results (Norton, 2009).

Other studies have demonstrated that transdiagnostic, group CBT for anxiety is associated with changes in the severity of untargeted mood disorders such as unipolar depression (E.G. Norton, Hayes & Hope, 2004; McEvoy & Nathan, 2007; Erickson, 2003; Ree & Craigie, 2007). Similarly, cognitive therapy for people with depression appears to yield improvements in untargeted social phobia severity as well as depression (Smits, Minhajuddin, & Jarrett, 2009), further supporting the notion that there are shared factors across anxiety and depression. The Erickson (2003) protocol is one of a very few protocols to have included people with schizophrenia diagnoses. 60% of the group received Brief Symptom Inventory anxiety scores in the normal range at six-month follow-up compared to 13% pre-treatment. Unfortunately, this study did not evaluate the potential effects on untargeted comorbid diagnoses such as schizophrenia. In a rare study examining outcomes following treatment for social anxiety in people with schizophrenia, it was found that not only did social anxiety improve, but so did untargeted depression symptoms, schizophrenia

symptoms and quality of life (Halperin et al., 2000). This appears to justify the inclusion of people with schizophrenia diagnoses in transdiagnostic interventions.

Transdiagnostic approaches also appear to have effectiveness when applied in an individual format (Mohlman, Ceden, Price, et al., 2008). With such high rates of comorbidity in existence, practitioners have always faced clients presenting with multiple problems and attempted to address them all within one modality; however, where they would have done this sequentially, the transdiagnostic approach attempts to address each of the problem areas at the same time (McEvoy, Nathan & Norton, 2009; Mohlman, et al., 2008). Fairburn, Cooper and Shafran (2003) outline an individual transdiagnostic treatment protocol for people with eating disorder diagnoses. The authors report having found encouraging success rates with this CBT-based treatment protocol in their private practice, though it remains untested in a formal research setting (Fairburn, 2008).

In summary, transdiagnostic treatments utilising CBT methods appear to have comparative effectiveness to diagnosis-specific group CBT and diagnosis-specific individual CBT. Most of the transdiagnostic treatment research has small subject-sizes and few controls in place and these results are only preliminary. However, these studies have consistently found agreement on the point that treating anxiety in heterogenous groups appears to have wide-reaching gains for a wide-ranging group of diagnostic categories.

1.3.2 In Search of Core Pathology

As outlined in the introduction, the transdiagnostic approach posits that there is a shared area of dysfunction breaching the gap between all diagnostic categories. For want of a better term, this has been phrased 'core pathology'. Core pathology means that factors that are central to the pathogenesis of one diagnostic category (e.g., PD) are also central to the pathogenesis of another diagnostic category (e.g. social phobia or unipolar depression). The transdiagnostic model holds that the same processes underlie human experience and the various ways in which it becomes disordered. Precisely what is shared and how far it is shared is yet to be illuminated.

However, the role of emotions in "connect[ing] sensory perceptions with very rapid appraisals of the valence and importance of the percepts" (Youngstrom & Izard, 2008, 368) places the regulation of emotions in a very definite transdiagnostic position (Leahy, 2007; Berking, Wupperman, Reichardt, et al., 2008). The role of negative emotion (fear, anger, guilt, shame, sadness) across the diagnostic categories has been highlighted by multiple theorists, and the term Negative Affectivity (NA) refers to a tendency to experience those emotions more often and more intensely (Norton & Philipp, 2008; Tellegen, 1982, in Watson, Clark & Carey, 1988). The concept of core pathology is reflected in the constructs of trait anxiety and neuroticism, Negative Affect Syndrome (Barlow, et al., 2004), State Negative Affect (Norton & Hope, 2004) and Cognitive Attentional Syndrome (Wells, 2007). There appears to be little difference between these conceptualisations of where the core pathology

may lie, with NA being central to each of those outlined above. NA represents a tendency to perceive the self and the environment in negative terms (Souza, Figueira, Mendlowicz, et al., 2008). It encompasses a range of traits that effect negative emotions, the frequency with which they are experienced and the way in which they are regulated, (Souza, et al., 2008). This tendency towards NA then has further influences on cognition, behaviour, self-view and physical responses (Watson, et al., 1988).

NA may bridge the anxiety and mood disorders. Studies evaluating NA have found strong relationships between NA and symptoms of anxiety disorders (Souza et al., 2008) and depression (Watson, et al., 1988). Clark and Watson (1991) conducted factor analyses on an extensive array of psychometric data gleaned from studies using a range of standardised measures. Their Tripartite Model comprises the same three factors that emerged from the analysis as potentially correlated with anxiety and/or depression. Positive Affect (PA) is primarily relevant to depression but not anxiety, and Physiological Hyper-arousal is specific to anxiety but not depression (Watson, et al., 1988). The Tripartite Model of Anxiety thus appears to be consistent with a transdiagnostic approach – emphasising shared factors while acknowledging distinguishing features.

NA appears to be affected by self-concept and self-efficacy related symptoms, pessimistic expectations and vigilance related symptoms (Watson, Clark, Weber, et al., 1995) and arguably includes the same attentional biases, inflexibility, suppression and sensitivity as

anxiety disorders do (see section 1.3.2). Treatments focused on the attentional components of NA have been successful in case studies of people with a range of anxiety disorders (Wells, 1990; Wells, White & Carter, 1997), depression and aspects of psychosis (Valmaggia, Boumann & Schuurman, 2007). Self-focused attention, rumination and experiential avoidance have been described as playing a role in the maintenance of several psychological disorders including substance abuse, unipolar depression, GAD, PD, social phobia, specific phobia, hypochondriasis and eating disorders (Baer, 2007) and these have all been included in different transdiagnostic theories of core pathology (Mansell et al., 2009).

Research into anxiety disorders, the frequency of comorbidity, diagnostic overlap, functional similarities in disorder-specific treatments, and the apparent effectiveness of transdiagnostic treatments provide good preliminary evidence to support the idea that different diagnoses involve similar processes reflecting NA and that these form worthy treatment targets.

1.3.3 Overlap across the Anxiety Disorders

Several processes and traits involved in NA appear to be associated with almost every anxiety disorder. These traits work in concert to increase the frequency, intensity and duration of anxiety responses. The cluster of processes involving vigilance for negatively valenced stimulus cues and avoidant cognitive and behavioural coping styles serves to promote amplified threat perception and impaired perception of controllability as well as

NA in general. This section explores each of the tendencies implicated in NA across the anxiety disorders: low self-efficacy and external locus of control, intolerance of uncertainty, inflexibility, suppression, avoidance, attentional vigilance and disrupted disengagement, global-stable attribution bias, and anxiety sensitivity.

1.3.3.1 Uncertainty, Control, & Flexibility

Non-clinical subjects tend to vary the cognitive appraisal and coping strategies they employ across situations (Folkman & Lazarus, 1980). In a general sense emotion regulation of any kind can become problematic when it is insensitive to contextual variation (Fresco, Williams, & Nugent, 2006). Inflexibility becomes particularly problematic when an individual is consistently attempting to down-regulate their emotional experiences through a process of suppression, avoidance, inhibition or escape (Olatunji, et al., 2007). None of the traits referred to in this thesis represent problematic behaviours or tendencies in and of themselves. When used appropriately, suppression, selective attention and avoidance are all adaptive and highly useful processes that allow human beings to organise and direct their experiences. It is only when these processes are utilised repeatedly and inflexibly that they become disordered.

As already discussed, a person encountering a stimulus will assign meanings related to whether or not it poses a threat to them. This perception of threat is partially dependent on the individual's estimation of their ability to cope with or control its occurrence and/or its

associated consequences. The ability to control one's environment is a key component of survival, and the degree of control available to a person influences what coping strategies are available to them (Folkman, et al., 1986). The more an individual interprets something as being uncontrollable or unpredictable, the greater the amount of related anxiety they experience (Armfield, 2008). An individual's ability, and even more importantly, their *perception* of their ability to control what happens to them plays a crucial part in the generation of an anxious response – whether it is or is not problematic. The perception of uncontrollability results in fewer behavioural efforts to control the environment, reducing learning experiences and ultimately proving the individual right in their estimation of lack of control (Beck, et al., 1985).

Locus of control and self-efficacy are two constructs that attempt to account for the different ways in which people perceive their ability to control personally relevant outcomes. Locus of control relates to whether a person believes that they themselves control their circumstances (internal locus of control) or whether what happens to them is the product of outside variables such as other people or situational factors (external locus of control; Rosolack & Hampson, 1991). External locus of control can take different forms. For example, people with social phobia appear to hold beliefs about control of outcomes being in the hands of powerful others but people with PD appear to believe that external control is due to random chance (Cloitre, Heimberg, Liebowitz, & Gitow, 1992). Coping strategies that reflect internal locus of control such as planned problem solving appear to correlate negatively with

symptoms of disorder (Folkman, et al., 1986). When an individual perceives a situation to be changeable, problem-focused coping strategies such as problem solving are used more often but people who view situations to be unchangeable tend to use more emotion-focused forms of coping such as rumination (Folkman, et al., 1986). External forms of locus of control, concerning relevant aspects of life (such as panic, health, or social interaction), have been implicated in social anxiety in children (Adalbjarnardottir, 1995; Schmitt & Kurdek, 1984), PTSD (Palyo & Beck, 2005; Chung, Preveza, Papandreou, & Prevezas, 2006), social phobia (Kennedy, Lynch & Swab, 1998), PD (Cloitre, et al., 1992), GAD (Biswas & Chattopadhyay, 2001), and agoraphobia (Van der Molen, Van den Hout, & Halfens, 1988).

Self-efficacy, on the other hand, is the degree to which an individual believes that they have the capacity to perform effectively in a given situation (Bandura, 1977). This is strongly tied to situation selection; people tend to avoid that which they perceive to exceed their coping capacity (Bandura & Adams, 1977). Self-efficacy is influenced by vicarious experience, past performance accomplishments, avoidance tendencies (Feltz, 1982), verbal persuasion and emotional arousal; however, another important factor influencing self-efficacy is a person's expectation of outcome (Bandura, 1977).

Outcome expectation refers to the degree to which the individual expects the behaviour to produce favourable outcomes (Bandura, Adams & Beyer, 1977). High anxiety expectancy also appears to play a role, in that people with anxiety disorders expect to experience anxiety

as an outcome of certain situations or stimuli (Kirsch, 1985). Several studies have demonstrated a probability bias such as this among people with social phobia; affected individuals tend to rate future social events as potentially negative more often and as potentially positive less often than healthy controls (Lucock, & Salkoskis, 1988; Teglasi & Fagin, 1984; Smits, Rosenfield, McDonald, & Telch, 2006). A similar pattern has been associated with PD (Dammen, Bringager, Arnesen, Ekeberg, & Friis, 2006). The degree of expected anxiety and the formation of threat perceptions affect a person's willingness to approach a stimulus and have powerful consequences for future behavioural efforts (Kirsch, 1985). Where optimistic outcome expectation has been shown to mediate the relationship between high self-efficacy and perceived social support (Karademas, 2006), pessimistic outcome expectations expressed as probability biases may mediate between low self-efficacy and social support.

Low self-efficacy has been associated with multiple negative effects such as the experience of cognitive interference (Ferraro & Washington, 2005), test anxiety (Dykeman, 1994) greater levels of depression and anxiety (Takaki, Nishi, Shimoyama, et al., 2003), the increased use of less effective coping strategies, (Shikai, Uji, Chen, et al., 2007), and less help-seeking (Shell & Husmann, 2008). There is strong support for the notion that self-efficacy mediates the relationship between coping, and positive and negative outcome (Salanova, Grau, & Martinez, 2006). Aside from being associated with higher levels of anxiety, low self-efficacy has been associated with social phobia (Richards, Richardson & Pier, 2002;

Hannisdottir & Ollendick, 2007; Rodebaugh, 2006), PTSD (Luszczynska, Benight, & Cieslak, 2009), PD with and without agoraphobia (Casey, Oei, Newcombe & Kenardy, 2004), agoraphobia (Hoffart, 1995), OCD (Franzblau, Kanadianian, & Rettig, 1995), and specific phobias (Sartory, Heinen, Pundt, & Jöhren, 2006; Bandura et al., 1977). Thus, it can be concluded that perceptions of lack of control have implications for nearly every class of anxiety disorder, though there may be differences relating to what kinds of control are relevant. This suggests that low self-efficacy may play a significant role in the arousal and maintenance of NA, despite some theorists arguing that self-efficacy is not widely applicable enough to warrant being included in formulations of NA (Mansell, et al., 2009).

1.3.3.2 Suppression

One of the central functions of emotion is to promote expressive behaviour and enhance the interaction between the person and their environment. Emotion expression allows people to communicate with each other, guide social interaction, influence each other and access support (Darwin, 1872). The ability to suppress emotion expression is also an adaptive skill. While the definition of the term and what it involves can vary (Mansell, et al., 2009), the definition used here is that suppression is an avoidant attempt to cope with emotion by inhibiting its expression and/or the related thoughts. Here, the term 'suppression' is to be used synonymously with the term 'behavioural inhibition'.

Suppression involves two ironic processes as the individual attempts to search out alternative content to offset the unwanted emotion and at the same time monitors their own awareness to assess the success of their attempts (Dagleish, Yiend, Schweizer, & Dunn, 2009). In the short term, the ability to stop thinking about something can be a useful survival strategy that allows for the direction of attention away from unwanted thoughts. Suppression is associated only with reductions in expressivity, not in the subjective intensity of the emotion the individual is attempting to suppress, (Gross & Levenson, 1997), unlike positive cognitive reappraisal, which decreases both emotional expression and intensity (Gross, 1998). In fact, when people attempt to suppress negative emotions or thoughts, the intensity of emotion and physical arousal experienced increases (Wegner, Schneider, Carter III, & White, 1987), particularly under conditions of demand or stress (Wegner, Erber, & Zanakos, 1993).

Habitual suppression has been associated with greater difficulty in understanding and coping with emotions (Silver, Boon & Stones, 1983; Gross & John, 2003; Garnefski, Legerstee, Kraaij, van den Kommer, & Teerds, 2002), decreased experience of positive emotions, decreased life satisfaction, fewer close peer relationships, impaired social functioning, less optimism, lower self-esteem (Feshbach & Singer, 1957; Gross & John, 2003), increased physiological arousal, (Gross & Levenson, 1997; Gross, 1998; Pennebaker, 1985), and an increased memory bias for threat-related stimuli (Kircanski, Craske & Bjork, 2008; Speckens, Ehlers, Hackmann, Ruths, & Clark, 2007).

In real-life situations, efforts to suppress and the subsequent emotional amplification could cycle repeatedly, where each increases in response to the other, (Wegner, et al., 1987). At the same time, the routine use of suppression as a coping strategy may result in the decreased experience of positive emotion (Gross & John, 2003). Reduced experience of positive emotions promotes a skewed experience dominated by negatively charged stimuli. This could result in increases in the valence of threat perceptions and subjective fear, which may promote catastrophisation or cost bias (Feshbach & Singer, 1957; Smits, et al., 2006). Catastrophisation refers to a tendency to exaggerate the anticipated negative consequences of a threat, (Beck, et al., 1985). Catastrophisation has been associated with increases in multiple measures of anxiety (Hicks, Leitenberg, Barlow, et al., 2005; Hoffart, et al., 2009; Rudolph, Flett, & Hewitt, 2007; Vassilopoulos, 2006; Vassilopoulos & Banerjee, 2008), but appears to be a by-product of increased fear; when fear reduces, the cost bias appears to decrease in response (Smits, et al., 2006). Suppression may play an important part in catastrophisation and catastrophisation may provide increased motivation to suppress in the first place (Smits, et al., 2006).

Studies suggest that, in a similar way, there is a significant interaction between suppression and perceived anxiety unacceptability (Campbell-Sills, et al., 2006). Arguably, people would not feel the need to suppress, unless they also found some part of their response unacceptable (either to themselves or to others). As participant perceptions of

unacceptability increase, so does the use of suppression and the consequent rebound of amplified emotions (Campbell-Sills et al. 2006). Beliefs around anxiety being unacceptable (either to others or to the self) may facilitate the increased use of strategies employed to suppress the expression of the emotion and the thoughts associated with it (Mennin, Heimburg, Turk & Fresco, 2005; Turk, Heimburg, Luterek, Mennin & Fresco, 2005).

Habitual suppression of this kind has been associated with PTSD (Kreitler, K., & Kreitler, H., 1988), OCD (APA, 2000; Rassin, Diepstraten, Merckelbach, & Muris, 2001), PD (Levitt, Brown, Orsillo & Barlow, 2004), Agoraphobia (Fehm & Margraf, 2002), acute stress disorder (Harvey & Bryant, 1998), GAD (Wells, 1995), anxiety disorders in children (Beiderman, Rosenbaum, Bolduc-Murphy, et al., 1993), and social phobia (McLean, Miller & Hope, 2007; Magee & Zinbarg, 2007). At the same time that these groups of people appear to attempt to suppress more often than healthy controls, they also appear to show a deficit in their ability to do so (Nixon, Menne, Kling, et al., 2008; Fehm & Margraf, 2002), possibly due to the increased amplification of emotion and thought occurrence associated with its habitual use. Increased thought occurrence may be reflective of ruminative thinking (Nixon, et al., 2008). Indeed, once an individual suppresses the expression of an emotion, rumination is one of the few regulatory options available to them. Rumination has also been strongly implicated in NA and transdiagnostic theories (E.G. Mansell, et al., 2009) and is reflected in the chronic worry which frequently accompanies anxiety disorders. Suppression promotes rumination, intensifies negative emotion and the associated physical responses and decreases positive

emotion, while restricting the available coping strategies. Suppression appears to be strongly implicated in the increased anxious responding involved in multiple anxiety disorders.

1.3.3.3 Avoidance

Anxiety's main aim is to motivate avoidance of threat, and towards that end, avoidance has adaptive survival functions when employed appropriately. Laboratory research has shown that the avoidant response is learned when it is successful in assisting an individual to escape a negative stimulus (Dulany, 1957). Avoidance is a way of coping that refers to a deliberate movement away from a stimulus (Santanello & Gardner, 2007). Coupled with approach, avoidance forms one of the key processes involved in attitude formation and change, determining what an individual comes into contact with, for how long (Eiser & Fazio, 2008). For the purposes of this thesis, the author will use the term avoidance to refer to the behavioural dimension, where suppression will represent the cognitive and expressive dimensions of avoidance (trying not to think about it and trying not to show it).

While avoidance allows people to escape danger, it becomes problematic when they engage in it inflexibly, in situations where they erroneously detected threat or could have better managed it in a different way. In these instances, avoidance serves to reduce learning opportunities and halt the processes involved in attitude change and habituation (Eiser & Fazio, 2008). The routine use of avoidance as a coping strategy has been associated with multiple negative outcomes for emotional well-being and functioning and increases in

anxiety severity across multiple measures, (Andrew & Durin, 2007; Gomez, & McLaren, 2006; Hayes, Strosahl, Wilson, et al., 2004; Maner & Schmidt, 2006; Tice & Masicampo, 2008; Tull, Gratz, Salters & Roemer, 2004).

Avoidance is tightly bound to the process of cognitive appraisal as it relates to the costs and benefits associated with remaining in and fleeing the situation in question (Eiser & Fazio, 2008). Individuals who are less tolerant of uncertainty are more likely to use avoidance (Eiser & Fazio, 2008). The routine use of avoidance is associated with low levels of social support (Gomez & McLaren, 2006). Further, the routine use of avoidance may decrease the likelihood of social support, creating a cycle whereby lack of social support contributes to avoidance, which contributes to lack of social support. People who habitually suppress their emotions tend to use avoidance more regularly than people who do not (Gross & John, 2003). This connection is hardly surprising, given that suppression is widely considered a form of cognitive avoidance. Because suppression is associated with increased arousal and emotive intensity, the negative valence of the threatening stimulus may increase to the point of seeming overwhelming; increasing the likelihood that avoidance seems the most appropriate course of action.

Feedback from past learning experiences also influences avoidance decisions (Eiser & Fazio, 2008). A person is more likely to avoid a stimulus if they did not manage it effectively in the past or it was associated with great distress. Once someone avoids a stimulus, there is

no experience with which to inform later decisions regarding similar stimuli. At the same time, it seems that people generalise their attitudes about known negative stimuli to novel stimuli, which appear similar (Eiser & Fazio, 2008). The avoidant individual receives few opportunities to learn about their potential ability to operate competently or to establish whether the threat actually would have occurred (Eiser & Fazio, 2008). Thus, once something negative has been avoided, its 'negativeness' is reinforced by the removal of a perceived threat. If the appraisals that give rise to the avoidance are incorrect, then the individual fails to learn the invalidity of their perception, and the adaptive function of avoidance is reduced (Eiser & Fazio, 2008). Other similar things become likely targets of avoidance later. Moreover, negatively appraised stimuli appear to be more readily generalised to other stimuli than positive appraisals are (Eiser & Fazio, 2008). Habitual avoidance may then help to increase the frequency of threatening perceptions as they become cued by a wider array of stimuli. Routine avoidance of particular situations or objects may restrict an individual's experiences of what they can cope with and what they enjoy, and has a powerful influence on self-efficacy and self-esteem (Tice & Masicampo, 2008). The routine use of avoidance may help to explain the observation that people with anxiety disorders appear not to habituate to anxiety arousing stimuli in the same way as people without anxiety disorders (Beck et al., 1985); they give themselves little opportunity to do so.

Avoidance is involved in all of the ten major DSM-IV anxiety disorders. Habitual avoidance features in the diagnostic criteria for social phobia, PTSD, agoraphobia without

history of panic, PD, PD with agoraphobia, acute stress disorder & specific phobia in the DSM-IV-TR (APA, 2000). Avoidance is implicated in the aetiology of PTSD (Kilpatrick, Veronen & Best, 1985), acute stress disorder (Bryant, et al., 2001), OCD (Briggs & Price, 2009), and the persistent worry that features in GAD (Borkovec, Alcaine, & Behar, 2004). Behaviour therapy's exposure protocols all attempt to reverse the effects of avoidance, by allowing the participant to habituate to the feared stimulus (Wolpe, 1997). The habitual use of avoidance impedes social support, interrupts adaptive learning, stalls habituation, and is associated with increased levels of anxiety across the anxiety disorders. Avoidance is also likely to be a chief component of NA, making negative emotion, and anxiety in particular, more readily experienced.

1.3.3.4 Attention

Attention has been viewed as central to human experience since the beginning of experimental psychology (E.G. James, 1890). James devoted an entire chapter to the exploration of the crucial part that attention plays in the cognitive aspect of the human condition, emphasising that "my experience is what I agree to attend to" (James, W., 1890, 402). Over one hundred years later, with the addition of modern neurological research, attention's role remains very similar, viewed as a system that unifies the control of psychological processing (Posner & Peterson, 1990). Attention has three major functions – that of orienting to stimuli, detecting signals for conscious processing and maintaining a vigilant or an alert state (Posner & Peterson, 1990). Attention is thus a crucial mediator of an

individual's experience, their interpretation of it, memory of it and the way in which it shapes subsequent behaviour and learning opportunities.

Attention involves simultaneous concentration on a select stimulus and withdrawal from other ones in order to allow for effective responding; "Without selective interest experience is an utter chaos," (James, 1890, 402). Researchers have identified a network of neurological sites, each involved in a different attention-related function (Posner & Peterson, 1990; Monk, Nelson, McClure, et al., 2006). Selection of signals for conscious processing is a function of the specific properties of the situation and the individual's own goals, beliefs and expectations. Threatening stimulus properties draw attention more than non-threatening stimulus properties, (Ohman, 1987). This holds true whether the individual has an anxiety disorder or not (Fox, Russo, Bowls & Dutton, 2001). However, the effect appears to be stronger in individuals with higher levels of anxiety (Mogg, Holmes, Garner & Bradley, 2008), particularly in ambiguous situations (Beck, et al., 1985; Butler, 1993). This promotes enhanced processing of threat-relevant material and the omission of safety-relevant material from cognitive processing, resulting in a consistent attentional bias.

Attentional bias differs from normal selective attention in that it represents an enduring tendency to attend to one kind of stimuli on a regular basis. Attentional bias is typically evaluated by measuring how long it takes for a person to respond to a visual stimulus. There are flaws with these methods (Mogg, et al., 2008), but they nonetheless provide useful insight

suggesting that people with anxiety disorders show an initial attentional bias for threat-cues (Bradley, Mogg, Falla & Hamilton, 1998; Roy, et al., 2008; Waters, Mogg, Bradley & Pine, 2008), followed by attempts to turn attention away from the cue (Dewitte & De Houwer, 2008; Monk, et al., 2006), in a repetitive cycle of hyper-vigilance and avoidance (Derakshan, Eysenck, & Meyers, 2007; Rinck & Becker, 2006; Heim-Dreger, Kohlman, Eschenbeck, & Burkhardt, 2006).

Attentional vigilance and avoidance is coupled with an apparent difficulty in effectively disengaging attention from threat cues once they have activated the anxiety response (Fox et al., 2001; Fox, Russo & Dutton, 2002; MacLeod, Mathews & Tata, 1986; Mogg, Holmes, Garner & Bradley, 2008; Rohner, 2002; Waters et al., 2008). The preferential focus of attention on negatively valenced stimuli and the effort exerted to avoid them disrupts ability to attend to other cues (Schultz & Heimberg, 2008). If unable to attend fully to external environmental cues, the anxious person often performs poorly and then interprets their poor performance as evidence of threat-perception, thus making it more likely that they will form similar appraisals next time a similar stimulus event takes place (Schultz & Heimberg, 2008).

It is also apparent that people with anxiety disorders show a bias in the way they attend to internal stimuli indicating threat, termed 'self-focused attention' (Baer, 2007; Bogels & Mansell, 2004; Mansell, Clarke & Ehlers, 2003; Hoffart, Borge, Sexton & Clark, 2009; Hofmann, et al., 2004; Schultz, & Heimberg, 2008; Wild, Clark, Ehlers, & McManus, 2008).

Self-focused attention has been shown to enhance the intensity of normal subjects' transient emotional states, for both positive and negative emotion, (Scheier & Carver, 1977). Self-focused attention appears to intensify the salience of emotion (Scheier & Carver, 1977) and has been demonstrated in a range of anxiety disorders as well as schizophrenia, depression and alcohol abuse (Ingram, 1990). People with social anxiety appear to use information about their own internal states to interpret how they appear to others, thus their subjective feeling of blushing may be interpreted as other people recognising and being uncomfortable that they are anxious (Wild et al., 2008). Studies have revealed that patients' self-ratings tend to be more severe than ratings made by clinicians (Clark & Watson, 1991; Katon & Roy-Bryne, 1989), suggesting that they judge themselves more harshly than others do. Such people may be attending more to internal cues indicating threat and anxiety than internal and external cues indicating safety (Beck, et al., 1985).

Taken together, the information available on the role of attention in anxiety suggests a combination of processes where the individual may be vigilant for both internal and external threat cues; once detected the individual attempts to avoid and suppress their responses to those cues. These attempts at attentional down-regulation are in turn associated with increases in the subjective intensity and duration of the negative emotion. This inadvertently serves to reinforce the person's mode of responding and the appraisals that gave rise to them. The individual with anxiety problems searches their environment for cues that confirm their initial appraisals and ignores cues that dispute their appraisals (Schultz & Heimberg, 2008).

Attention features in just about every psychological explanation of problematic anxiety. The central idea is that biased attention skews subjective experience and functioning. Aspects of biased attention have been identified in GAD (Waters et al., 2008; Monk et al., 2006), PTSD (Pine, Mogg, Bradley, et al., 2005), Subsyndromal anxiety (DeWitte & De Houwer, 2008), simple phobias (Rinck & Becker, 2006), social phobia and separation anxiety (Roy, Vasa, Bruck, et al., 2008; Sposari & Rapee, 2007; Roy, et al., 2008), relaxation-induced PDs (Wells, 1990), PD (Teachman, Smith-Janik, & Saporito, 2007), and people with anxiety sensitivity (Schmidt, Santiago & Wernicke, 2001). Attentional vigilance for threat appears highly transdiagnostic among the anxiety disorders.

1.3.3.5 Causal Attribution

People with anxiety disorders may attend to threatening cues more readily, they also tend to interpret stimuli as threatening more often, particularly ambiguous stimuli (Eysenck, MacLeod & Mathews, 1987; Lucock & Salkovskis, 1988; Rasmussen, Rosenfeld, Reeves, & Keller, 2007; Vassilopoulos & Banerjee, 2008). Where attention determines the availability of input for processing, attribution is involved in determining what input is relevant.

Attribution influences the maintenance phase of attention and the nature of what the individual attends to will influence the kinds of attributions they make, (Schultz & Heimberg, 2008). Causal attribution is one of the major mediators between an event and its subjective experience – one can attribute the cause of an event to external, relatively benign and short-lived circumstances or to a set of personally relevant, long-standing variables.

Both could have very different consequences for the way in which an individual codes their experience, which aspects they give primacy and how much of an impact it has. Causal attribution styles are further defined across three dimensions – stable-unstable, global-specific and external-internal (Abramson, Seligman & Teasdale, 1978). The stable-unstable dimension refers to whether the person sees the cause of events as persistent over time or transient. The global-specific dimension refers to whether they see the factors involved as being prevalent across situations or distinctive features of a particular experience. The internal-external dimension relates to whether causes are seen as being the result of internal factors such as personal abilities or external factors such as the behaviour of other people (Pasahow, 1980).

People with anxiety disorders may share causal attribution styles, which differ from the typical biases observed in nonclinical populations (Kenardy, Evans & Oei, 1990; Heimberg, Klosko, Dodge, et al., 1989). Most people possess an attribution bias that leads them to internalise positive events and externalise negative events, promoting a favourable self-perception (Cunningham, Starr & Kanouse, 1979). Some studies have suggested that people with anxiety disorders show internal attribution for negative events (agoraphobia and social phobia: Heimberg et al., 1989; Arkin, Appelman, & Burger, 1980; GAD: Riskind, Castellon, & Beck, 1989). However, the internal attribution bias for negative events in anxiety is a function of the presence of depression symptoms rather than of anxiety itself (Heimberg, Vermilyea, Dodge, Becker & Barlow, 1987).

Research suggests that people with anxiety disorders may engage in more global (Heimberg, et al., 1987; Michelson, Bellanti, Testa, & Marchione, 1997) and stable (Heimberg et al., 1989) attributions of negative events than non-anxious groups, particularly when the attributions concern anxiety-relevant stimuli (Teglasi & Fagin, 1984). Global and stable attribution means that the particular threat is perceived as persistent across situations and over time, which could contribute to the perceived need to 'be on the lookout' for the threat, adding to the impetus for vigilance. The global dimension may reflect the rigidity in coping and evaluative strategies associated with anxiety (described in section 1.3.3.1). Other research has implicated the role of external or random-control attributions of negative events in anxiety (Vera-Villaruel, & Buela-Casal, 2000; Miller & Arkowitz, 1977; PD: Heimberg, et al., 1989). Thus, it appears people with anxiety disorders may have external-global-stable attribution for negative events, unless they have symptoms of depression.

On the other hand, studies have demonstrated that people with anxiety disorders show a tendency to attribute positive events to more internal and stable factors and to believe ones' self to be highly responsible for positive outcomes (Heimberg, et al., 1987). People with anxiety disorders also attach a greater level of importance to positive events than do non-patient groups (Heimberg, et al., 1987). On the other hand, people with depression place high importance on negative events (Tracy, Bauwens, Martin, Pardoën & Mendlewicz, 1992). Internal-stable attributional style for positive events increases the perceived impetus to be

successful and possibly increases the costs associated with not succeeding. The combined effect of internal and stable positive attribution bias with low self-efficacy creates a perception where success is seen as important and self-relevant but also unachievable. This is precisely the sort of insoluble situation created in the early neurosis experiments (Wolpe, 1996). These evaluative concerns and high personal standards, as dimensions of perfectionism, account for 41% of variance in anxiety symptoms and 50% of variance in depression symptoms, suggesting that these constructs play an important role in both of these affective disorders (Wu & Wei, 2008). Internal attribution for positive events could interact with a low rate of success, due to anxious interference, to impact negatively upon self-esteem and self-efficacy, further enhancing the perception that although success is crucial, it is also out of reach. Avoidance would find its way into an equation such as this with ease. While causal attribution style appears to be influential across anxiety disorders, on its own it appears to account for only a small percent of the variance in anxiety symptoms (10%; Michelson, et al., 1997).

In anxiety, it may be that internality is relevant to positive experiences and externality to negative experiences, such that negative experiences are deemed unpredictable and uncontrollable and positive experiences are deemed to be the responsibility of the individual, but unachievable. This results in a perception where uncertainty abounds, threat is imminent, impetus to succeed is high and perception of ability to survive is low, making anxiety almost inevitable. Stability and globality are the more consistent markers for

maladaptive attribution and anxiety problems, rather than internality or externality in and of themselves. However, the evidence supports the notion that people with anxiety disorders tend to attribute positive events to more internal-stable causes and attribute negative events to more external-global causes. That is the individual views positive events as caused by the self, across time and views negative events as caused by external forces, outside of their control in all situations. This pattern of attribution promotes the need for vigilance to negative events and the need for avoidance, as the individual views positive outcomes as being an unachievable, personal responsibility.

1.3.3.6 Anxiety Sensitivity

Anxiety Sensitivity is one of many transdiagnostic vulnerability factors that predispose individuals to problematic anxiety (Leahy, 2007), likely by way of an interaction between genetic vulnerabilities, cognitive traits and the experiential learning processes that give rise to them. Anxiety Sensitivity (AS) proposes that people with anxiety disorders are sensitised to and therefore less tolerant of anxiety and the associated physical arousal than non-clinical populations.

AS is defined as a fear of fear, or more specifically an anxiety about anxiety and its sequelae (Wilson & Hayward, 2006), and relates to the extent to which an individual believes that the arousal associated with anxiety has negative or harmful consequences (McNally, 1996; Schmidt, et al., 2001). People with high AS have moderately heightened levels of

autonomic reactivity; they display perceptual biases for heart rate, perceiving their heart rate to be faster than it really is (Schmidt et al., 2001). AS may have a counterpart relating to sensitivity to NA in general – while some people have a sensitivity and intolerance to anxiety, others may have a sensitivity and intolerance to negative affect in general. Indeed, some of the literature describes AS as a fear of dyscontrol, rather than simply a fear of fear (e.g. Tull & Gratz, 2008) and may be related to trait anxiety (Lilienfield, 1996). High AS works to catalyse fear conditioning by increasing the aversive charge of anxiety experiences and therefore the number and intensity of learned fears (McNally, 1996). Physical stimuli such as heart and breathing rates are cognitively transformed by the individual into signals indicating loss of control and danger. Cognitive dimensions including attentional biases, outcome expectation and low self-efficacy, likely mediate this relationship between physical arousal and distressing anxiety (McNally, 1996).

Indeed, AS is likely to include a number of different constructs as they relate to the development and maintenance of the belief that anxiety is harmful. If individuals with anxiety disorders are more likely to form threat perceptions, as the evidence suggests, it follows that they may also be more likely to interpret their physical responses as indicative of danger as well. This perception of their physical responses as being a sign of danger would serve to provide feedback that intensifies the physical responses and subsequently the subjective experience of anxiety (Mandler, 1975; Ohman, 1987). When an individual is hypervigilant to threat cues in their external and internal environments, they are more likely

to form the perceptions that give rise to physical anxiety responses more strongly. AS may be highly linked with the relationship between avoidant coping and anxiety (Wilson & Hayward, 2006; Feldner, Zvolensky, Stickle, Bonn-Miller, & Leen-Feldner, 2006). The habitual use of suppression and avoidance as coping mechanisms could serve to increase the physiological arousal and its aversiveness, contributing to the intensified distress that accompanies anxiety disorders. AS has been found to have particular relevance for people with PD, (Page, 2002; Rapee, Brown, Antony & Barlow, 1992), 'uncued' panic attacks (Donnell & McNally, 1990), GAD, (Rector, Szacun-Schimizu & Leybman, 2007; Viana & Rabian, 2008), and PTSD (Leen-Feldner, Feldner, Reardon, Babson & Dixon, 2008; Zinnur Kilic, Kilic & Yilmaz, 2008; Wald & Taylor, 2008). AS therefore appears to have relevance for the aetiology and treatment of a number of different anxiety disorders.

To recap thus far the anxiety disorders involve low self-efficacy, suppression, avoidance, attentional vigilance and disrupted disengagement, external-global attribution biases for negative events, internal-stable attribution for positive events, probability biases and anxiety sensitivity. The individual attends more to threat, perceives threat-manageability is low and the cause of threat to be wide reaching across time and context. On the other hand, they view the cause of positive events to be persistent across time but not context, located internally and to be unachievable. At the same time, they are sensitive to physical responses and tend to cope using suppression and avoidance, which serve to increase the responses

and prevent corrective learning. While each of the anxiety disorder diagnoses remains distinct, there is an expansive area of overlap across them.

1.3.4 Overlap Between Diagnostic Categories

The tendencies implicated in the development and maintenance of problematic anxiety, also feature in the development and maintenance of many other mental disorders, albeit in varying degrees. Other mood disorders share many of these features. It may be that the anxiety and mood disorders co-occur so frequently because they share a common diathesis, while still differing on other dimensions such as the specific focus (Brown & Chorpita, 1996). This is consistent with a transdiagnostic approach.

Anxiety very commonly accompanies the experience of multiple different mental-disorder diagnoses. The state of knowing one has a mental disorder could conceivably be anxiety producing in itself. Having a mental disorder entails that the individual has certain experiences that they have been unable to control and that have led to distress. Whether it is related to delusions, hallucinations, interpersonal functioning, mood changes or disorganised thoughts, a person's perception of their ability to cope with and control their experiences is associated with higher rates of anxiety. As explored in subsequent sections, these traits have also been associated with other categories of disorder entirely. It follows that anxiety may be relevant to many people with mental disorders and that learning to cope with anxiety could

have benefits for the degree of distress experienced because of the symptoms of those disorders.

Most studies evaluating treatment effects have excluded people with schizophrenia-spectrum disorders, even if the individual displays problems with anxiety. Indeed the two anxiety support programmes available in the Auckland community at the time that Engage began also had schizophrenia-spectrum diagnoses as exclusion criteria. Only people who had a primary diagnosis of an anxiety disorder were eligible to join either of them. In some respects, concerns around their capacity to take part in the group process without disruption may be founded; however, there are arguably cases where inclusion could be beneficial to the client without being detrimental to other participants. Whilst in the midst of a highly symptomatic episode an individual with schizophrenia may cause disruption to a group intervention and experience difficulties engaging with material. There are also periods of relatively low symptom severity when taking part in a group programme could be both practical and beneficial to the clients themselves.

This section is concerned with whether the mood disorders and other disorders share factors with the anxiety disorder spectrum and whether the data warrant including a wider range of diagnostic categories within a single group anxiety intervention. That is, does the transdiagnostic approach extend beyond the anxiety disorders?

1.3.4.1 Anxiety & Mood Disorders

Mood disorders are the second most common form of disorder, with lifetime prevalence rates of any mood disorder generally falling around the 20% mark (eg: Kessler, et al., 1994; Kessler, et al., 2005a; Oakley Browne, et al., 2006a). DSM-IV criteria for each of the mood disorders are presented in Appendix 2. In the original National Comorbidity Survey (NCS), the NCS-R and the NZMHS, unipolar depression had lifetime prevalence rates of 16.0% – 17%, nearly five times higher than the lifetime prevalence rates reported for bipolar I & II disorders, dysthymia and manic episodes (Kessler, et al., 1994; Kessler, et al., 2005a; Oakley Browne, et al., 2006a). While mood disorders are less common than anxiety disorders, 12-month prevalence rates suggest that they are more severe, with most of the 12-month anxiety disorders being classified as mild to moderate in severity but more 12-month mood disorder cases being classified as ‘serious’ (Kessler, et al., 2005b). Among mood disorders, bipolar disorder was most severe, then unipolar depression (Kessler, et al., 2005b).

The mood disorders are highly comorbid with each other, the anxiety disorders (Kessler, et al., 2005b) and with physical illness (Banks & Kearns, 1996). Among the twelve strongest correlations in the NCS-R 12-month prevalence statistics, were major depression and GAD (termed “anxious depression”; Kessler, et al., 2005b, 619), and unipolar depression with dysthymia (termed “double depression”; Kessler, et al., 2005b, 619). One study found that among psychiatric outpatients with unipolar depression, 57.4% also met the criteria for at least one anxiety disorder (Zimmerman, et al., 2000). In the NCS, 50.9% of people with panic

attack and 55.6% of people with PD also met the lifetime criteria for depression (Kessler, Stang, Wittchen, et al., 1998). The NZMHS study showed that 41.6% of people with a depressive disorder also had a comorbid anxiety disorder and 26.6% of the people with an anxiety disorder had a comorbid depressive disorder (Scott, Oakley Browne, McGee, & Wells, 2006b). Another study showed that two thirds of patients with agoraphobia or panic and one third of patients with simple or social phobia had a comorbid depression diagnosis (Clark, 1989). The study also showed that around half of the subjects with depression may have a comorbid anxiety disorder (Clark, 1989).

Of course, that leaves a substantial proportion of people without depression-anxiety comorbidity. The presence of core pathology does not necessarily mean that all people with the core pathology have to experience all of its multiple expressions. According to the Tripartite Model, an individual could be high on the general factor (NA) and high on only one of the specific factors (low positive affectivity or Hyper-arousal) which would explain the presence of only one diagnosis (Clark & Watson, 1991). Accordingly both of the specific factors could be present (low positive affectivity and Hyper-arousal), accounting for the presence of both an anxiety and a depression diagnosis (Clark & Watson, 1991). The two undoubtedly co-occur with high frequency.

It is also possible for an individual with an anxiety disorder to show sub-syndromal symptoms of depression without reaching clinical levels, and vice versa. The avoidance, isolation and suppression associated with anxiety disorders can create a long-term stressful and unpleasant environment for the individual – decreasing the likelihood that they engage in enjoyable experiences, interrupting the individual’s opportunity to experience positive affect and subsequently increasing the likelihood that they display symptoms of depression (if not the disorder itself).

High rates of comorbidity may be the result, not of shared pathology but of time. However, this does not appear to be solely the case. Among people with panic attack-depression comorbidity, 31.1% had depression first, 25.5% reported onset of both in the same year and 43.4% said that panic preceded depression (Kessler, et al., 1998). Among people with PD-depression comorbidity, 48% had depression first, 30.6% reported onset of both in the same year and 21.5% said that panic preceded depression. It appeared that active depression predicted PD more than history of depression did and similarly active PD predicted depression more than a history of panic did (Kessler et al., 1998). Another study found that continuous anxiety severity scores on the Depression Anxiety Stress Scales positively correlated with depression severity scores (Tull & Gratz, 2008). This provides strong support for the notion that the factors associated with the onset of one class of disorder are also associated with the onset of the other class of disorder, but not that one predictably *leads* to the other. It seems likely that once an individual begins engaging in such

things as avoidance, suppression and negative outcome expectation, for example, that they become vulnerable to both anxiety and depression. Individual differences would determine which one became apparent first, if at all. However, once one symptom cluster has been triggered, the risk for developing the other appears to increase. This is not surprising: anxiety and depression share many distress symptoms (Clark & Watson, 1991). It may be that this is the result of two very different processes yielding similar results, or it may be that the two categories share some underlying processes – it is not plausible that they share all underlying processes because the two categories are definitely distinguishable. However, some theorists and researchers have called for the addition of a mixed anxiety-depression diagnosis to the DSM (Clark & Watson, 1991).

Several studies have shown that bipolar and unipolar depression share underlying factors with the anxiety disorders (Wei, Mallinckrodt, Russell & Abraham, 2004; Savitz, van der Merwe, & Ramesar, 2008; Fresco, et al., 2006). Inflexibility of coping and interpretive styles both contribute to each anxiety, depression (Fresco et al., 2006) and bipolar disorder (Dickstein, Nelson, McLure, et al., 2007). People with depression tend to have difficulty accurately identifying facial affect in ambiguous situations and to find more facial expressions ambiguous (Csukly, Czabor, Szily, Takacs & Simon, 2009). As stimulus ambiguity increases, so does the tendency to ruminate and avoid the stimulus, suggesting that people with depression also share a low tolerance for uncertainty (Cribb, Moulds & Carter, 2006). Locus of control accounts for the greatest portion of variance in the quality of

life of people with bipolar disorder when compared to other potential factors such as family stress (Lund, 2000). External locus of control has been associated with bipolar disorder in children (Pelligrini, Kosisky, Nackman, et al., 1986) and among people with unipolar depression (Daniels & Guppy, 1997). Low self-efficacy plays a significant role in unipolar depression across ethnicities (Kennard, Stewart, Hughes, Patel, & Emslie, 2006). Low self-efficacy accounted for 17% of the variance in social adjustment for people with depression and bipolar disorder (Cutler, 2005). It appears then, that inflexibility, intolerance of uncertainty, external locus of control and low self-efficacy all have important implications for unipolar depression and bipolar disorder as well as for anxiety.

Depression and bipolar disorder are also highly correlated with all forms of avoidance (behavioural, cognitive and experiential), suggesting that avoidance is important in these diagnostic categories, just as it is in anxiety (Cribb, et al., 2006; Gomez & McLaren, 2006; Loftus, Garino, Jaeger, & Malhotra, 2008; Mula, Pini, Monteleone, et al., 2008). Similarly, habitual suppression of negative emotions appears to be involved in unipolar depression (Kasch, Rottenberg, Arnow, & Gotlib, 2002; Leen-Feldner, Zvolensky, Feldner & Lejuez, 2004) and bipolar disorder (Baker, Holloway, Thomas, Thomas & Owens, 2004). Students who have higher levels of emotion-related behavioural inhibition (i.e. suppression) tend to display higher rates of negative affectivity for longer durations and are more likely to engage in rumination as a coping strategy (Leen-Feldner, et al., 2004). The more an individual uses behavioural inhibition the more severe the symptoms of depression are (Kasch et al., 2002;

Muris, Merckelbach, Schmidt, Gadet & Bogie, 2001). The role of suppression in bipolar disorder appears to be more complicated than it is in depression and anxiety. Evidence suggests that people with bipolar disorder may overly suppress negative emotions during depression but that during the manic phase they show signs of disinhibition, suppression's opposite (Altshuler, Bookheimer, Townsend, et al., 2005). Where depression and anxiety tend to involve consistent levels of suppression, in bipolar disorder this suppression is punctuated with periods marked by a seemingly total lack of suppression. However, suppression remains implicated in unipolar depression, bipolar disorder and anxiety disorders and is highly likely to be a feature of NA.

People with Major Depression have been shown to possess attentional biases toward the negatively charged stimuli in a given situation (Eisenberg, Fabes, Guthrie, & Reiser, 2000) and to remember negative events more vividly than positive events (Baso & Bornstein, 1999), similar to people with anxiety disorders. So have people with bipolar disorder with and without comorbid anxiety (Brotman, Rich, Schmajuk, et al., 2007). Increased self-focused attention, implicated in anxiety, also plays a role in unipolar depression (Scheier & Carver, 1977; Dunn, Dalgleish, Lawrence & Ogilvie, 2007). Given the intensifying effect that self-focused attention has on emotion (Scheier & Carver, 1977), it is plausible that self-focused attention also plays a role in bipolar disorder. However, this author has not been able to find research either confirming or disconfirming this.

Attribution style accounts for 25% of the variance in depressive symptoms (Spangler, Simons, Munroe & Thase, 1997), compared to 10% of anxiety symptom variance (Michelson, et al., 1997). People with depression (Heimberg, et al., 1987) and bipolar disorder (Knowles, Tai, Jones, et al., 2007; Van der Gucht, Morriss, Lancaster, Kinderman, & Bentall, 2009) evidence Global-Stable-Internal attribution styles for negative events, in relatively equal degrees (Zirpoli, 2000; Tracy, et al., 1992). People with bipolar disorder have been shown to display dysfunctional attitudes, particularly in relation to the need for achievement (Jones, Scott, Haque, et al., 2005), similar to people with anxiety disorders. The attribution biases observed among depression and bipolar disorder appear to be almost identical; however when compared to the attribution biases of people with anxiety disorders, there are differences in the internal-external dimension for negative and positive events. However, the globality and stability dimensions appear to be highly similar across the anxiety and mood disorders.

People with unipolar depression tend to use strategies such as rumination more than nonclinical controls do (Cribb, et al., 2006). Where the chronic worry of anxiety is a form of cognitive avoidance, rumination plays a role in the avoidance associated with depression (Cribb et al., 2006). Research suggests that the cognitive coping styles of rumination, catastrophisation and self-blame are associated with increased symptoms of depression (Garneski, Teerds, Kraaij, Legerstee & van den Kommer, 2004; Garnevski, Kraaij & Spinhoven, 2001). This essentially mirrors the cognitive coping strategies that have been

correlated with increased anxiety symptoms. People with unipolar depression endorse high rates of rumination for negative emotions, but people with bipolar disorder endorse the use of rumination for both negative and positive emotions (Johnson, McKenzie & McMurrich, 2008). So where people with unipolar depression ruminate about negative emotions, which intensifies and prolongs the experience, people with bipolar ruminate about positive emotional experiences as well and so experience the intensification of both. Rumination positively correlates with depressive automatic thoughts and anxious automatic thoughts in people with bipolar disorder (Gruber, Eidelman, & Harvey, 2008). The same study demonstrated that negative automatic thoughts are a feature of bipolar disorder and that the tendency towards cognitive distortions of that nature was not disorder-specific (Gruber, et al., 2008). Rumination therefore appears to be a shared factor involved in NA across anxiety, depressive and bipolar disorders.

These same diagnostic groups may possess a general sensitivity to NA, similar to AS. "Fear of dyscontrol" predicts depression severity and experiential avoidance (Tull & Gratz, 2008, 204), and has been associated with bipolar disorder, particularly during manic phases (Simon, Otto, Fischman, et al., 2005). Fear of cognitive dyscontrol accounts for 45% of variance in depression severity and provides strong support for the shared role of AS in depression as well as in anxiety (Tull & Gratz, 2008).

It can therefore be concluded that anxiety, unipolar depression and bipolar disorder share inflexibility, low self-efficacy, intolerance of uncertainty, avoidance, suppression, attentional biases, global-stable attribution, rumination, and anxiety sensitivity. Each is expressed in slightly different ways in each disorder, as they interact with varying environmental and individual differences. However, they appear to be strong contenders for the variables that make up NA, an area of core pathology shared across the anxiety disorders, bipolar disorder and unipolar depression.

1.3.4.2 Anxiety & The Schizophrenia Spectrum

Where anxiety and the mood disorders are highly common, the schizophrenia spectrum represents one of the least common forms of psychological dysfunction. The DSM-IV diagnostic criteria for the schizophrenia-spectrum disorders are presented in Appendix Two. Since the 1950's and the advent of antipsychotic medication, the study of schizophrenia has been largely dominated by biomedical research, biological explanations of the disorder and biological treatments for it (Mosher, 2004; Read, Mosher & Bentall, 2004; Read, Fink, Rudegeair, Felitti, & Whitfield, 2008). Because the current study included subjects with paranoid schizophrenia, schizoaffective disorder and psychosis, the current examination of the schizophrenia spectrum will be mainly limited to those three forms of diagnosis.

Schizophrenia-spectrum disorders are very intrusive (Bettazoni, Ziprusky, Friedland & Devins, 2008). Lifetime prevalence rates for the collective schizophrenia-spectrum disorders

range between 0.7% (NCR: Kessler, et al., 1994), and 0.4% (NZ: Wells, Bushnell, Hornblow, Joyce & Oakley Browne, 1989). Schizophrenia specifically has reported lifetime prevalence rates of 0.3% (NZ: Wells, et al., 1989; Goldner, Hsu, Waraich, & Somers, 2002) – 0.49% (Beijing: Xiang, Ma, Cai, et al., 2008). Where lifetime prevalence rates of schizophrenia are low amongst the general population, it is more common amongst clinical populations. Using a case-register approach, estimates place the lifetime prevalence of schizophrenia at 3% (white Americans: Kramer, Von Korff, & Kessler, 1980) to 5.23%, (Italy: De Salvia, Barbato, Salvo, & Zadro, 1993). Prevalence data relating specifically to schizoaffective disorder are more difficult to ascertain; one study found lifetime prevalence rates for schizoaffective disorder of 0.7 per 1 000 people (Lindstrom, Widerlov, & von Knorring, 1997).

Group anxiety treatments tend to exclude people with schizophrenia-spectrum diagnoses, but studies have shown that a majority of people with non-affective psychosis also meet the criteria for anxiety, mood, or substance use disorders (Kessler, Birnbaum, Demler, et al., 2005). Indeed, the structural similarities between anxiety and some of the emotions commonly elicited in schizophrenia such as anger and paranoia, (Plutchik, 2000), point to another link between anxiety and the schizophrenia spectrum. Factor analysis has revealed that the symptoms of schizophrenia may cluster around three dimensions: positive symptoms such as hallucinations, negative symptoms such as blunted affect and cognitive disorganisation (Liddle, 1987). The same three factors emerge in psychotic depression and bipolar disorder (Toomey, Faraone, Simpson, & Tsuang, 1998). Not only that, but it would

appear that these more symptomatic distinctions predict outcomes better than DSM diagnoses do (van Os, Gilvarry, Bale, et al., 1999).

Psychological comorbidity in schizophrenia is high, just as it is in anxiety and mood disorders. An Italian study found that 58.1% of people with schizophrenia-spectrum disorders had lifetime comorbidity of at least one other psychiatric disorder (Cassano, Pini, Sacttoni, Rucci & Dell'Osso, 1998). As with other diagnoses, comorbidity in schizophrenia may be associated with greater symptom severity (Cunill, Castells, & Simeon, 2009). Anxiety disorders are highly common among people with schizophrenia-spectrum disorders. For example, 43% – 51.3% of subjects with schizophrenia and 45% of subjects with schizoaffective disorder also meet criteria for at least one other comorbid anxiety disorder (Cosoff & Hafner, 1998; Pallanti, Quercioli, & Hollander, 2004). People with schizophrenia score high on measures of neuroticism (Lysaker, Wilt, Plascak-Hallberg, Brenner & Clements, 2003). Social anxiety appears to be present in some 39% (Pallanti et al., 2004) – 65% (Argyle, 1990) of cases in schizophrenia, and panic disorder in 35% of cases (Argyle, 1990). OCD has been found in up to 59.2% of cases of schizophrenia-spectrum disorders, PD in up to 43%, specific phobia in up to 63.4%, and PTSD in up to 51% of cases (Braga, Petrides, & Figueira, 2004).

Not one of these studies accounts for the role of associated subsyndromal anxiety on schizophrenia-spectrum disorders. It is plausible that subsyndromal anxiety would have relevance for many people with schizophrenia-spectrum disorders. NA symptoms such as

anxiety, features as one of four risk-factors involved in vulnerability to the positive symptoms associated with schizophrenia (Cornblatt, Lencz, Smith, et al., 2003). Additionally, the uncertainty, lack of control and threat inherent in many features of schizophrenia and its treatment, would likely provide the necessary stimulation to give rise to the experience of anxiety on a regular basis for many people. 61.7% of the schizophrenic subjects of one study reported finding the symptoms of their diagnosis traumatic (Beattie, Shannon, Kavanagh, & Mulholland, 2009), and a study has found that 46% of study participants with psychosis experienced the onset of PTSD following treatment (McGorry, Chanen, McCarthy, et al., 1991). Indeed, the stigma associated with receiving a diagnosis of schizophrenia or schizoaffective disorder is associated with increased social anxiety and shame (Rusch, Corrigan, Powell, et al., 2009; Birchwood, Trower, Brunet, et al., 2006), suggesting again that anxiety is relevant to the schizophrenia spectrum. However, “because of the overshadowing importance of psychotic symptoms earlier in the course of illness, panic and phobic phenomenon may be relatively ignored by clinicians dealing with schizophrenia,” (Argyle, 1990, 432). This supports the potential utility of providing transdiagnostic anxiety support to this population.

The other mood disorders are similarly common among people with schizophrenia-spectrum disorders, and some theorists have gone so far as to suggest that schizophrenia and mood disorders are opposite points on a continuum, upon which schizoaffective disorder sits halfway (Winokur, Monahan, Coryell & Zimmerman, 1996). Symptoms of depression have

been present in 25.3% of cases of schizophrenia and in 65.1% of schizoaffective disorder cases (Lindstrom et al., 1997). It would seem that unipolar depression is a highly common sequel to psychosis, with some 36% of study participants developing depression in the 12 months following a psychotic episode (Beattie, et al., 2009). Paranoia, the most common form of delusion in schizophrenia, is also present in depression and involves similar forms of threat perception as anxiety does (Bentall, et al., 2008).

Where the schizophrenia-spectrum disorders are highly comorbid with the anxiety and mood disorders, they also share some of the factors implicated in anxiety. The bulk of the schizophrenia research is biomedical, and a plenitude of evidence exists to suggest that functional neurological differences do play a large role in the schizophrenia spectrum. However, treatments aimed at cognitive factors have produced reductions in schizophrenic symptoms (Olbrich & Mussgay, 1990), suggesting that these elements also have relevance for the schizophrenia spectrum. The biology debate is not to be discussed here nor is a complete analysis of schizophrenia theories. In the interests of space, this section is limited to examining the roles that the anxiety-relevant transdiagnostic factors play in the schizophrenia spectrum.

Firstly, perceptions of control and self-efficacy appear to bridge the schizophrenia spectrum, mood disorders and anxiety disorders. Some theorists implicate perceived uncontrollable threats to self-relevant goals or social threats in the onset or deterioration of

schizophrenia symptoms (Jones & Fernyhough, 2007). Low self-efficacy is related to poorer psychosocial functioning, increased negative symptoms and emotional distress, and decreased hopefulness among people with schizophrenia (Lysaker, Clements, Wright, Evans & Marks, 2001; Pratt, Mueser, Smith & Lu, 2005; Ritsner, Ben-Avi, Ponizovsky, et al., 2003) and increases in positive symptoms (Lysaker, et al., 2001). The presence of hallucinations has been associated with increased feelings of uncontrollability, when compared to non-hallucinatory schizophrenia and negative beliefs about uncontrollability and danger predict auditory hallucinations in schizophrenia (Baker & Morrison, 1998). Self-efficacy may have a mediatory role between schizophrenia symptoms and coping style (Ventura, Nuechterlein, Subotnik, Green & Gitlin, 2004; Strous, Ratner, Gibel, Ponizovsky & Ritsner, 2005), stigmatisation, (Kleim, Vauth, Adam, et al., 2008), and increased avoidance (Ritsner, Gibel, Ponizovsky, et al., 2006). Like people with anxiety disorders and depression, people with paranoid schizophrenia also tend to have a greater expectation that negative events will occur to them in the future (Bentall, et al., 2008). Low self-efficacy in schizophrenia is influenced by outcome expectation and probability bias. Expecting future negative outcomes is associated with the presence of a negative memory bias (Bentall, et al., 2008) and has been implicated in the persecutory delusions involved in schizophrenia and delusional disorder (Kaney, Wolfenden, Dewey, & Bentall, 1992).

Also similar to the anxiety disorders, people with schizophrenia-spectrum diagnoses appear to endorse habitual suppression as a coping strategy. While people with

schizophrenia-spectrum disorders express emotion less than non-clinical controls, they have equivalent subjective experiences of them (Aghevli, Blanchard, & Horan, 2003). People with schizophrenia tend to give explanations that downplay emotional stimuli despite strong contextual evidence to the contrary (Neuringer, Kaplan & Goldstein, 1974). This may be expressed as impaired insight into the experience and its consequences and represent a form of suppression (Lysaker, Bell, Bryson, & Kaplan, 1998; Shaw, Dong, Lim, et al., 1999).

Avoidance has been associated with increased symptom severity in both anxiety and depression, and it may also play a role in schizophrenia. People with schizophrenia and people with social anxiety score the same on measures of social avoidance and performance avoidance (Pallanti, et al., 2004). This is not the only study to have suggested that people with schizophrenia endorse avoidant coping styles (Lysaker, Lancaster, Nees, & Davis, 2003; Beattie, et al., 2009; Strous, Ratner, Gibel, Ponizovksy, & Ritsner, 2005; Horan, Ventura, Mintz, et al., 2007; Williams, 1974; Szoke, Schurhoff, Ferhadian, et al., 2002; Wilder-Willis, Shear, Steffen & Borkin, 2002). An early study found that people with schizophrenia, particularly the paranoid type, might avoid familial relationships, (Alkire, Brunse & Houlihan, 1974). However, it appears likely that this avoidance may relate to social relationships in general, rather than being limited solely to familial relationships. Social avoidance is amongst the strongest predictors of quality of life in schizophrenia (Ritsner, et al., 2003). A lack of social support in turn appears to predict avoidant coping (Strous et al., 2005). Increasing social support may therefore represent an important intervention option,

raising the validity of the support group for people with schizophrenia. While attempts to avoid are common in schizophrenia, it appears some people with the diagnosis appear to experience difficulty learning when it is appropriate to do so (Kosmidis, Breier, & Fantie, 1999).

Avoidance in schizophrenia has been related to the presence of greater affective symptoms (Beattie, et al., 2009) as well as lower quality of life, and increased paranoia (Ritsner, et al., 2003; Udachina, Thewissen, Myin-Germeys, et al., 2009) and appears to be higher among people who have experienced childhood trauma (Beattie, et al., 2009). Some of the neurological changes identified in schizophrenia and psychosis may even be artefacts of the neurological changes associated with early trauma experiences (Read, Perry, Moskowitz, & Connolly, 2001). Trauma experiences are highly common among the schizophrenia spectrum (Lysaker & La Rocco, 2008; Rubino, Nanni, Pozzi, & Siracusano, 2009; Beattie, et al., 2009) as well as among anxiety and mood disorders, (Zlotnick, Warshaw, Shea, & Keller, 1997). It may be that early aversive experiences are involved in setting up a predisposition to NA and vulnerability to experience psychological disorder in one form or another, including schizophrenia. People with any kind of schizophrenia use significantly more 'immature' forms of coping related to down-regulation (such as dissociation, projection, suppression and passive-aggression) than healthy controls do (Shaw, Geurse & Steiner, 2008). Rather than actively attempting to cope with a particular stimulus, people with schizophrenia may prefer

coping methods aimed at down-regulation (Ritsner, et al., 2003; Rudnick & Martins, 2009), similar to people with anxiety disorders.

Like people with anxiety disorders and mood disorders, people with schizophrenia appear to evidence attentional biases. Studies demonstrate that when subjects are distracted with attention-involving tasks, the frequency of hallucinatory experiences decreases, especially if the task involves verbal interaction (Slade, 1974), providing strong support for the notion that attention is involved in the schizophrenia spectrum. Self-focused attention is associated with significantly more external attribution and perceptions of uncontrollability among people with schizophrenia and hallucinations (Ensum & Morrison, 2003). People with paranoid schizophrenia may possess an attentional bias for anxiety-relevant and paranoia-relevant visual stimuli (Moritz & Laudan, 2007). Where people with anxiety and depression appear to have difficulty disengaging attention from threat-relevant stimuli, people with schizophrenia appear to display a difficulty orienting or engaging attention (Luck & Gold, 2008). However, evidence suggests that once a negative stimulus has captured attention, people with schizophrenia may have a similar difficulty disengaging from the stimulus (Strauss, Allen, Duke, Ross & Schwartz, 2008). This is associated with increased time spent lingering on negative stimuli and increases in negative symptoms (Strauss et al., 2008). People with schizophrenia also appear to have difficulty inhibiting attention to stimuli (Braff, Grillon & Geyer, 1992; Cheung, Chen, Chen, Woo & Lee, 2002). This leads to a decrease in perceptual filtering and a sensory overload (Braff, et al., 1992; Fuller, Luck,

Braun, et al., 2006). Schizophrenia also appears to be associated with other attentional impairments involved in difficulty orienting, shifting and dividing attention (Birkett, Brindley, Norman, Harrison, & Baddeley, 2006; Kaiser, Roth, Rentrop, et al., 2008). Thus, while there are differences, some people with schizophrenia show attentional vigilance for threat and difficulty disengaging attention once it is instigated, similar to people with anxiety and mood disorders.

People with schizophrenia also appear to show a range of attributional biases. Some studies have suggested that people with paranoid schizophrenia are much more likely to attribute causation to external factors, specifically other people (Martin & Penn, 2002), rather than themselves (Baker & Morrison, 1998; Moritz, Woodward, Buron, Bruas & Andresen, 2007). At the same time, people with delusions tend to make highly external-global-stable attributions for negative events and highly internal-global-stable attributions for positive events (Bentall & Kaney, 1989). This suggests similarities with people who have anxiety disorders and tend towards external-stable-global attribution for negative events (Vera-Villaruel & Buela-Casal, 2000) and internal-unstable-global attribution for positive events (Heimberg et al., 1987). The global dimension has been most consistently demonstrated to play a role in the schizophrenia spectrum (Addington, Addington & Robinson, 1999), with variable results for the internality dimension and the stability dimension (e.g., Lysaker, et al., 2003). While attribution biases are evident across anxiety, mood and schizophrenia-spectrum disorders, the nature of these biases may be different in each diagnostic category. Similarities

on the global measure of attributional style suggest, again, that insensitivity to context is significant to each anxiety, mood and schizophrenia-spectrum disorders.

It may be that these groups share a low tolerance for strong emotions and/or the arousal associated with them. Psychosis arguably involves the same pattern of suppression as is noted amongst people with bipolar disorder (Altshuler, et al., 2005) in that habitual suppression may trigger a rebound of intensified emotion that results in total disinhibition, when there was once rigid inhibition. People experiencing hallucinations do show a difficulty ignoring things, suggesting that hallucinations may relate to a similarly disrupted ability to suppress unwanted or distracting experiences (Paulik, Badcock, & Maybery, 2008). It does appear that suppression plays a role in schizophrenia. However, where people with anxiety appear to attempt to suppress anxiety experiences, those with schizophrenia are much more even-handed with their suppression attempts and attempt to suppress the expression of all emotion apart from disgust and pain (Kohler, Martin, Milonova, et al., 2008). This more complete attempt at suppression would involve greater effort to enact and potentially a greater loss of ability to suppress at rebound, as has been noted among people with hallucinations (Paulik et al., 2008).

While there is much in common, other factors differentiate the schizophrenia spectrum. People with schizophrenia might engage in imaginal distortion more vividly than other people do (Lanyon & May, 1979). People with depression and anxiety also engage in higher

levels of imaginal distortion, though not to the same degree (Lanyon & May, 1979). Imaginal distortion refers to vivid imaginings, sometimes interpreted as 'real' (i.e. in the case of hallucination) and more often interpreted as fantasy (i.e. daydreaming; Lanyon & May, 1979). These distortions increase in the presence of high-anxiety stimuli in all groups, not just those with schizophrenia (Lanyon & May, 1979). However, in schizophrenia there also appears to be impairment of the metacognitive skills that allow a person to make attributions concerning the origins of a stimulus source (Bentall, 1990). A disruption of the ability to discriminate between self-generated sources of information such as memories and beliefs and external sources of information (Bentall, 1990; Ensum & Morrison, 2003) creates a difficulty distinguishing things that are really happening from things that they imagined or remembered. People who are prone to delusions and are therefore considered at risk for developing schizophrenia-spectrum diagnoses appear to show a data gathering bias in that they have a tendency to form conclusions based on a paucity of information (Colbert & Peters, 2002). The tendency to jump to conclusions has been related to a need for closure (read certainty) and an intolerance of ambiguity (Colbert & Peters, 2002), something implicated very strongly in anxiety. The tendency to jump to conclusions may help explain why people with schizophrenia and schizoaffective disorder appear to display a tendency to recognise negative facial expressions inaccurately (Premkumar, Cooke, Fannon, et al., 2008). A tendency to form interpretations based on scarce information likely makes a person highly prone to other forms of cognitive distortion that shape perception of situational meaning and response selection.

In summary there is evidence to suggest that avoidance, attentional vigilance, self-focused attention, global attribution, suppression, probability bias and low self-efficacy all have implications for schizophrenia, though other diagnosis-specific factors appear to have a great impact. Because anxiety disorders are so highly comorbid with schizophrenia and because schizophrenia itself is associated with subsyndromal anxiety, people with schizophrenia may benefit from interventions designed to help them cope with anxiety experiences. It may be that attenuating these anxiety-related factors in schizophrenia could also lead to transdiagnostic decreases in the severity of schizophrenia, given that these factors influence symptom severity in schizophrenia. However, the degree to which these same anxiety-related factors are involved in the aetiology of schizophrenia is unclear. It seems unlikely that the schizophrenia spectrum shares as much overlap as depression and anxiety do. However, promoting approach, balanced attention, flexible attribution, expression and self-efficacy perceptions may be helpful for people with schizophrenia-spectrum diagnoses.

2 The Engage Intervention

The Engage intervention applied the transdiagnostic approach to an education and support programme for people with heterogenous mental-disorder diagnoses and heterogenous subsyndromal or clinical anxiety problems. A description of each of the eight

phases involved in the Engage programme can be found in the Engage Programme Outline (Appendix Three). The programme is advertised as being “designed to enable participants to understand what is going on with anxiety and empower them to find ways to gain mastery over it.” (Engage recruitment advertisement). The group is designed for people with any mental disorder, provided they report having difficulties with anxiety. The programme did not attempt to target any mental disorder nor any anxiety disorder, but took as its targets those NA-related constructs that appear to be relevant across the anxiety disorder spectrum: low self-efficacy, suppression, avoidance, unbalanced attention, biased attribution, cognitive distortion and fear of fear.

Engage differs from typical transdiagnostic treatments in a number of ways. Firstly, the Engage programme is not a therapy programme or ‘treatment’ per se. It intends to assist people to find ways to cope with anxiety and provide an opportunity for experiential learning and support. Engage aims to be a useful adjunct to existing treatments and as a way to help participants overcome potential barriers to accessing full treatments. The methods involve the sharing of information about models of emotion and anxiety, the correlates of problematic anxiety and potential coping strategies or mechanisms for changing anxiety. Most components of the programme match up with components included in typical transdiagnostic treatments such as cognitive re-structuring, however they were presented in an informational format, where the individual was responsible for applying it in whichever way they saw fit. All of the transdiagnostic treatments reported in the section above

incorporated explicit planning of gradual exposure for every participant, but Engage did not. Where other transdiagnostic treatments have involved the full application of CBT methods, the Engage intervention instead educated participants about CBT methods and explored ideas around how these lessons could be put into practice.

Consistent with a transdiagnostic approach, the programme did not specifically explore the content of the participants' beliefs and thoughts, though some of the homework activities provided opportunities for participants to explore these themselves, such as a cognitive reappraisal task. The function of beliefs and attitudes, and their place in the processes that give rise to problematic anxiety were described. The focus of the intervention was on sharing information about practical actions that participants could take to cope with anxiety effectively. It has been demonstrated elsewhere, that even when the content of beliefs and attitudes are not targeted that improvement can still occur (E.G. the Attention Training Technique – Cavanagh & Franklin, 2000, in Wells, 2007). The focus of the programme was always on anxiety. Other mental disorders or emotional responses were not explored in the material, though participants were free to discuss them as they wished.

The programme is delivered in 1.5-2 hour weekly sessions across 16 weeks. There are eight, two-week phases to the programme. Each phase is comprised of one educational session followed by a support session. In support sessions, participants are able to discuss the information shared in the previous session and their experience with it. This allows two

weeks to be spent on each topic before moving on, in line with Erickson and colleagues' (2009) recommendation to allow more than one session for each technique or topic. At the end of each educational session, facilitators set participants a challenge designed to generalise the information learned in the session. The lead facilitator and researcher provide all participants with a progress report nine weeks into the programme, after the midway evaluations. However, the literature recommends that transdiagnostic protocols include one-on-one additional support sessions for people still struggling after week four (Erickson, et al., 2009). Erickson and colleagues also recommend that content be presented in an order of: behavioural homework, psychoeducation, cognitive techniques and relapse prevention (Erickson, et al., 2009). The Engage intervention presented in the order of: psychoeducation, behavioural homework, cognitive techniques and relapse prevention (Erickson et al., 2009).

3 The Present Study

The following study examines the outcomes of a group-based, psychoeducation and support programme for anxiety in a sample with heterogenous anxiety problems and diagnoses. Two main hypotheses are explored – firstly, whether people with a wide range of anxiety-related problems would experience improvements in their anxiety experiences after taking part, and secondly whether participants’ untargeted diagnoses improve in response. Whereas many previous transdiagnostic treatment studies were limited to participants with mood disorders, this study was open to people with any psychiatric diagnosis, provided they were well enough at the time of intake to participate safely. The evaluation procedures allowed a partial examination of selected factors associated with NA among the Engage participants. Thus, a third hypothesis was explored: whether avoidance, suppression, low self-efficacy, attribution bias, attention bias and/or anxiety sensitivity were evident amongst this sample.

3.1 Method

3.1.1 Design

The study utilised an idiographic, between-subject, partially non-concurrent, multiple-baseline design. Multiple-baseline designs compensate for the lack of a control group because each subject represents an attempted replication. Baseline collection was staggered between the two groups receiving the intervention, with three and five baseline collection

points, respectively. Baseline collection would ideally have continued until a stable baseline emerged. However, due to serious time constraints a delay in the onset of the intervention until baselines stabilised was impossible.

3.1.2 Recruitment

The study sample was recruited from participants of the Engage programme. Potential Engage participants responded to advertisements placed in community organisations, mental-health service providers and doctors' surgeries. The lead facilitator/researcher screened them for preliminary eligibility over the phone. The programme was open to people with (a) 18 years of age or more, (b) a diagnosis of a DSM-IV mental disorder by a psychiatrist or doctor, (c) self-reported difficult anxiety that interferes with their ability to live well, (d) English literacy skills, (e) no recent history of violence or abusive behaviour towards self or others, (f) a self-reported belief that they will be able to cope with the group experience, and (g) a self-reported desire to change the way anxiety affects them. If they met the preliminary eligibility criteria, the lead facilitator/researcher arranged an interview.

In the interview, the participant described both their anxiety and mental-disorder experiences. The interviewer was thus given an opportunity to assess further the programme's suitability for the participant. Participants were eligible to take part in the programme if they were able to discuss their anxiety and mental-disorder experiences

without excessive distress or confusion. Excessive distress was operationally defined as needing to stop the interview more than once. Excessive confusion was operationally defined as being unable to give their emotions a numeric rating or being unable to describe what anxiety meant for them. Following the interview, the lead facilitator/researcher provided any participant eligible for the programme written and verbal information about the study, a chance to ask questions and time to consider whether they wanted to take part in the study along with the programme itself. All study participants signed a consent form. Participants did not receive any monetary incentive for taking part in the study.

3.1.3 Participants

Ten participants were assigned to two intervention groups by the order they enrolled in the programme. Nine out of the ten participants agreed to take part in the study (n=9) yielding a sample comprised of three females and six males. Group one began with five study participants and concluded with five study participants. Although one person dropped out of group one after the fifth week, they were not a study participant, thus data is unavailable for inspection. Group two began and ended with four study participants. The participants ranged from 19 to 58 years-old and had an average age of 37 years.

All participants described significant impairment to their daily lives and functioning because of anxiety, in many different forms. Anxiety impairments ranged from social anxiety and health anxiety through to panic attacks and chronic worry. All nine participants

reported having at least one DSM-IV mental-disorder diagnosis, made by a psychiatrist or General Practitioner. However, they did not all have anxiety disorder diagnoses – appropriate to the transdiagnostic approach, which de-emphasises the importance of diagnostic specificity in treating anxiety. These diagnoses were not checked independently. It is possible that, upon independent assessment, a clinician could make diagnoses of various classes of anxiety disorder. It is also possible, given independent assessment, that the study participant's diagnoses may have changed altogether. However, the symptoms disclosed in the interviews and those tracked on the questionnaires were apparently consistent with the self-reported diagnoses. Study participant demographics and diagnostic details are presented below in Table 1.

3.1.4 Intervention

Both groups received the same intervention, delivered from the Engage programme manual by the researcher/lead facilitator and a co-facilitator. The lead facilitator held a bachelor of arts in psychology, a post-graduate diploma of arts in psychology, had worked as a support worker for people with severe mental disorder for a number of years and had experience and training as a phone counsellor. The co-facilitators for each group were a qualified psychotherapist and a psychology graduate with a background in group facilitation. The lead facilitator is also the programme designer and the researcher. Despite the introduction of a number of potentially biasing factors into the research, it is commonplace for preliminary effectiveness research such as this to be initially conducted by

the people who deliver the interventions themselves. It is hoped that the current study will provide preliminary evidence to encourage further research of a support-and-education application of the transdiagnostic approach.

Table 1: Engage Sample Demographic

Subject	Age*	Sex	Primary Diagnosis	Comorbid Diagnosis	Medication [†]
S1	31	M	Bipolar disorder	-	Nil
S2	36	F	Generalised Anxiety Disorder	Dysthymia & PTSD	Quetiapine – 75mg Citalopram – 40 mg
S3	24	M	Psychosis	Depression	Olanzapine – 25mg Citalopram – 20 mg
S4	37	M	Schizoaffective Disorder	-	Risperidone injection Olanzapine – 5 mg Citalopram – 10 mg [‡] Epilim – 400 mg [‡] Clonazepam (PRN) [^]
S5	42	F	Depression	-	Fluoxetine – 20 mg Quetiapine – 75 mg
S6	58	M	Schizoaffective Disorder	-	Risperidone – 7 mg Citalopram 40 mg [‡]
S7	19	F	Depression	PTSD	Nil
S8	56	M	Schizophrenia – Paranoid Type	-	Olanzapine – 5mg
S9	35	M	Depression	OCD and GAD	Venlafaxine – 225 mg Clonazepam (PRN)

Note: Diagnoses are based on participant self-report and therefore are representative of their diagnoses as they are aware of them. * Age at time of interview. † Medication regime at baseline.

‡ Baseline medication issue: S4 began taking Citalopram three weeks prior to baseline collection. S4 also began taking Epilim during the third baseline collection point. S6 had increased their dose of Citalopram five weeks prior to baseline collection, from 30 mg to 40 mg daily.

^ PRN – medication used on an as-needed basis.

3.1.5 Measurement

The measurements used in this study were predetermined aspects of the intervention itself. The study thus did not require additional effort from Engage participants, reducing a potential barrier to participation in the study.

3.1.5.1 Participant Feedback Surveys

Engage runs at Youthline House, a not-for-profit, community organisation. At the conclusion of Engage, Youthline requested that each participant complete an anonymous feedback survey. Youthline collected the survey data and provided the researcher with the group averages for each of the tracked areas – enjoyment, learning, personal relevance, and achievement of goals. The survey also asked participants to circle from a list, the words that best described their experience of Engage. The list included negative words such as dull, confusing, not useful, and boring as well as positively charged words such as interesting, challenging, fun and useful. Participants were able to select as many descriptors for their experience as they saw fit. The data from these surveys were used to assess the participant acceptability of the intervention.

3.1.5.2 Personal Questionnaires

Overall anxiety severity and overall mental-disorder severity were measured using an adaptation of Shapiro's (1969) personal questionnaire (PQ) procedure. The PQ procedure was part of Engage itself, included as a safety check and progress monitor for the participants' own use. If eligible for the programme, the information provided in the initial interview was used to construct an individualised questionnaire for each participant that tracked the degree of impairment in each of the areas reported as significant to the

participant, in addition to any safety, as relevant, such as suicidal ideation. The interview was semi-structured and delivered by the lead facilitator/researcher or one of the co-facilitators, a psychotherapist trained in the procedure. Interviewees described the main effects of both their anxiety and their mental-disorder experiences, along with the main symptoms experienced and what was most disruptive about anxiety and mental disorder. Participants also their most desired changes in regards to their anxiety and mental-disorder experiences. The lead facilitator/researcher examined the information from each interview and selected the items that appeared most significant to the participant for inclusion in the PQ. Thus, the items tracked on the PQs represent elements that the participants themselves believe are relevant to their anxiety experiences.

In a number of cases, it was not immediately clear whether a symptom represented an aspect of anxiety or of mental-disorder experiences, particularly for participants with depression or schizoaffective diagnoses. In cases such as these, the researcher assigned items to the anxiety scale or the mental-disorder scale based on judgements made by the participants themselves regarding what section of the interview they raised the issue. Although bias may occur from participant selection of scale in this manner, the ambiguity highlights the symptom overlap that exists across a wide range of disorders.

Each item on the PQ was comprised of four multiple-choice statements ranging from extremely severe through to recovery on that item. For example if a participant stated in

their interview that panic attacks were a concern for them 2-3 times a week, an item was included in their questionnaire that read as follows:

- a) This week I had more than 3 panic attacks.
- b) This week I had 2-3 panic attacks.
- c) This week I had 1 panic attack.
- d) This week I did not have any panic attacks.

Statement 'a' represents deterioration for this participant and scores three. Statement 'b' represents no change and scores two. Statement 'c' represents an improvement and scores one. Lastly, statement 'd' represents recovery and scores zero. Overall anxiety severity and overall mental-disorder severity scores are obtained by summing the participant's total score, dividing it by the maximum score possible and multiplying it by 100, yielding a standardised severity score out of 100. Participants also indicated any medications they were on and any changes in their medication regime on the PQ. For the most part, each questionnaire was worded with language the participant themselves used to describe their experiences.

3.1.5.3 Daily Diary Cards

Engage participants completed a daily diary card for the duration of the intervention, from the first session. Study participants' diary cards were collected each week and recorded for the purposes of measuring changes in daily experiences of six major emotions – pain, sadness, anger, shame, anxiety/fear and joy. Each day participants made a self-report rating

indicating the extent to which they had experienced each of the six emotions that day. Daily mood ratings were made using a 6-point Likert scale, where 0 indicated that the emotion had not been experienced at all and 5 indicated that it had been experienced very strongly (in the case of anxiety, a 5 indicated a panic attack). The first session introduced participants to the diary cards and how to complete them. The lead facilitator/researcher made it clear that the self-report ratings were to reflect a global daily rating, taking into account the frequency as well as the intensity of their experiences for the entire day.

3.2 Results

3.2.1 Participant Evaluation of Intervention Acceptability

Results from the anonymous feedback survey are reported in tables 1.2 and 1.3. All participants, without exception, described the intervention as helpful (9/9). Average participant enjoyment was 4.2/5, where 5 is extremely high. On average participants rated their learning at 4.1/5 and the relevance of the course material at 4.2/5. The participants rated how well they achieved their individual goals at 3.5/5 on average. They rated the group leadership at 4.9/5.

Table 2: Participant Group Evaluation Data

Item Rated	Mean rating	Item Rated	Mean rating
Your Enjoyment	4.2	Group Leadership	4.9
Your Learning	4.1	Goals Achieved	3.5
Relevance of Group	4.2		

Note: Participants rated each item on a scale from 1-5, where 1 is low and 5 is high.

Participants also identified words that described their experience from a list. 6/9 participants selected the word fun. 5/9 participants selected the word clear. 7/9 participants selected the word useful. 6/9 participants selected the word interesting. 5/9 participants selected the word challenging. 1/9 participants selected the words confusing and boring. No participants selected the words ‘dull’, ‘not useful’, ‘nothing new learned’ or ‘other’ that would have allowed them to specify any other descriptive they thought relevant.

Table 3: Engage Participant Group Descriptors

Descriptor	<i>n</i>	Descriptor	<i>n</i>
Helpful *	9	Confusing	1
Useful	7	Boring	1
Fun	6	Not Useful	0
Interesting	6	Nothing New Learned	0
Challenging	5	Dull	0
Clear	5	Other	0

Note: Participants selected however many words were applicable to them from a list.

* Exception – participants did not select the item “Helpful” from the list, but responded to a separate Yes/No question, “Was this group helpful for you?”

3.2.2 Personal Questionnaires – Items Tracked

Each participant identified between 12 and 16 items to track on the anxiety-related section of their PQ. Each item in the anxiety section represented one way in which anxiety affected the participant. The anxiety items tracked for each participant on the PQ are presented on Table 4. The effects include difficulty concentrating, constant worry, impaired social interaction, panic attacks, physical health impacts, difficulty sleeping,

Table 4: Items Tracked on Anxiety-Related Section of Personal Questionnaires

Subject	Panic Attack	Health Anxiety	Social Anxiety	Anxiety about Public Places	Constant Worry	Difficulty Relaxing	Difficulty Concentrating	Intrusive Bad Memories	Feeling unsafe or in danger
S1			Yes	Yes		Yes	yes		Yes
S2			Yes	Yes	Yes	Yes	Yes		Yes
S3	Yes			Yes		Yes	Yes		
S4			Yes	Yes	Yes	Yes	Yes	Yes	
S6			Yes	Yes		Yes	Yes		Yes
S7	Yes	Yes	Yes	Yes			Yes		Yes
S5			Yes			Yes			
S8			Yes			Yes	Yes		
S9		Yes	Yes		Yes	Yes	Yes		

Subject	Fear of Disapproval	Avoidance	Negative Expectations of others or self	Difficulty Doing Daily Tasks	Anxiety about Ability to Manage	Racing Thoughts	Difficulty Interacting	Suppression
S1		Yes	Yes	Yes	Yes	Yes	Yes	
S2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
S3	Yes		Yes	Yes	Yes	Yes	Yes	
S4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
S6		Yes	Yes	Yes		Yes		
S7		Yes	Yes		Yes		Yes	
S5		Yes	Yes	Yes	Yes	Yes		
S8	Yes	Yes	Yes	Yes	Yes		Yes	
S9	Yes	Yes			Yes		Yes	Yes

Subject	Restlessness	Isolation	Disrupted Sleep	Shame about Anxiety	Substance Use to Cope (illicit or prescription)	Difficulty Planning or Making Decisions	Anxiety Disrupting Appetite	Physical Symptoms
S1	Yes							
S2		Yes						Yes
S3				Yes	Yes			
S4	Yes				Yes			
S6	Yes	Yes			Yes	Yes		
S7			Yes		Yes	Yes		
S5		Yes					Yes	Yes
S8			Yes					
S9					Yes			Yes

avoidance, guilt and/or fear of disapproval. Similarly, each participant identified 12 to 16 items to be track on their mental-disorder scale. Mental-disorder related items included paranoia, sense of coping ability, shame or guilt, motivation deficits, reliving past events,

depersonalisation, delusions, auditory hallucinations, worthlessness, intrusive thoughts and/or obsessions. The mental-disorder items tracked for each participant on the PQ are provided on Table 5.

Four of the nine participants reported having difficulty recognising positive elements of their environment and their own performance, possibly reflecting attentional bias or attributional bias. More participants likely engaged in attentional bias than was reported, as attentional bias is less effortful than avoidance and less conscious than negative expectations.

An examination of the NA-relevant items, which were explicitly tracked on the PQs, reveals that eight of nine participants reported avoidance an issue for them. Eight of nine participants reported negative expectations of their own performance or of other people's behaviour towards them, which reflects a probability bias. Eight of nine participants reported anxiety about their ability to manage things, suggesting low self-efficacy for the majority of the group. Suppression was an explicit issue for only three participants. Eight out of nine participants reported experiencing a low mood or sadness.

Table 5: Items Tracked on Mental-Disorder Related Section of Personal Questionnaires

Subject	Paranoia	Low Mood / Sadness	Being Overly Excited or Energetic	Shame or Guilt	Difficulty Sleeping	Negative Self-View	Drug & Alcohol Use	Sense of Coping Ability
S1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
S2		Yes			Yes	Yes		Yes
S3		Yes		Yes				Yes
S4	Yes	Yes	Yes	Yes			Yes	
S5		Yes		Yes				
S6	Yes	Yes						
S7		Yes		Yes	Yes	Yes		Yes
S8	Yes					Yes		
S9		Yes			Yes	Yes		Yes

Subject	Reliving Past Events	Family Difficulties	Depersonalisation	Feeling Disconnected from Others	Suicidal Ideation	Low Motivation	Difficulty Recognising Positives	Poor Self-Care
S1						Yes		
S2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
S3								Yes
S4					Yes			Yes
S5		Yes			Yes	Yes	Yes	
S6								Yes
S7				Yes	Yes	Yes	Yes	
S8								Yes
S9					Yes	Yes	Yes	

Subject	Delusions	Decision-making	Feelings of Anger	Difficulty Remembering Things	Suppression	Confused Thinking	Worthlessness	Self Harm
S3	Yes	Yes	Yes	Yes				
S4	Yes				Yes	Yes		
S6						Yes		
S5								
S7								
S8				Yes				
S9							Yes	Yes

Subject	Difficulty Experiencing Joy	Difficulty Relaxing	Difficulty Interacting	Feeling Stressed	Hopelessness	Uncontrollable Crying	Hearing Voices	Feeling Insecure
S2			Yes					
S3								
S4								
S5	Yes		Yes		Yes	Yes		
S6	Yes	Yes	Yes	Yes				
S7	Yes					Yes		
S8							Yes	Yes
S9	Yes				Yes			

Subject	Obsessions	Agitation	Difficulty Concentrating
S8	Yes	Yes	Yes
S9	Yes		

3.2.3 Personal Questionnaire Results

Participants completed PQs at baseline, again midway through the programme, the week the programme finished and also one month following the programme's completion. Group one completed baseline measures once a week for the three weeks preceding the programme's initiation with two exceptions (S3, S5). Group two completed baseline measures once a week for the five weeks preceding the programme's initiation also with two exceptions (S7, S9). In all, two participants completed only one baseline measure (S5, S9), and one participant completed only two baseline measures (S3), with the remaining six participants completing 3-5 baseline measurements, an unavoidable deviation from the intended minimum number of three baseline collection points. PQs tracked anxiety severity, mental-disorder severity and medication changes.

3.2.3.1 Anxiety & Mental-Disorder Severity Scores

Graphs of each participant's questionnaire scores are presented in Figure 2. Overall anxiety and mental-disorder scores for each participant are presented in Table 6. Stable baselines were obtained for only two of the six participants who completed three-or-more baseline measures, with the remaining participants showing variable baselines that appeared to rise and fall on a weekly basis. The data variability was difficult to interpret in a conclusive way. It was unclear which of the variable baseline measurements represented the

participants' typical experience. In two cases, baseline scores included what appeared to be clear outliers – particularly in the case of S2 and S8. Both participants obtained one extremely low score during baseline that contrasted with their other baseline scores, which all tended to be much higher (See Figure 2).

Table 6: Overall Anxiety and Mental-Disorder Scores

	Baseline Range		Mid-point		Post-intervention		Follow-up		Medication Changes
	Anx.	M.D	Anx.	M.D	Anx.	M.D	Anx.	M.D	
S1	40.00 – 77.77	41.66 – 72.22	24.44	22.22	15.56	27.78	13.33	19.44	Remained unmedicated
S2	6.25 – 33.33	3.29 – 33.33	45.83	45.10	33.33	35.29	33.33	47.06	Stable throughout
S3	19.44 – 25.00	18.18 – 21.21	19.44	18.18	16.67	6.06	11.11	21.21	Stable throughout
S4	47.22 – 83.33	22.22 – 47.22	47.22	25.00	36.11	19.44	33.33	22.22	Olanzapine discontinued in final weeks of group. Citalopram stable. PRN not used post-baseline. Epilim increased to 600 mg between post-intervention and follow-up.
S5	41.03*	41.03*	48.72	30.77	20.51	56.44	-	-	Fluoxetine increased to 40mg. Quetiapine increased to 160 mg
S6	35.71 – 64.28	27.78 – 52.77	52.38	33.33	46.15	27.78	35.71	36.11	Stable throughout
S7	64.44 – 73.33	69.23 – 71.79	57.78	64.10	42.22	43.59	48.89	41.03	Remained unmedicated
S8	11.11 – 46.15	44.44 – 63.88	25.64	41.66	41.03	38.88	12.82	39.39	Stable throughout
S9	73.81 *	72.62*	52.08	45.24	-	-	66.67	74.36	Venlafaxine reduced at mid-point baseline, then discontinued. PRN stable.

Note: scores are standardised out of 100.

M.D = Mental Disorder score. Anx. = Anxiety score.

Mid-point = Mid-point questionnaire, delivered 8 weeks (half way) into the intervention.

Post-intervention = Post-intervention questionnaire, delivered in the week after the final session.

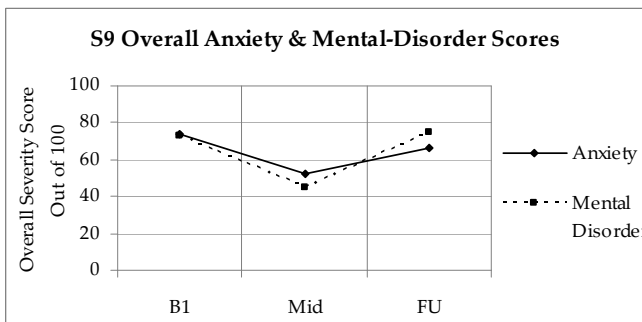
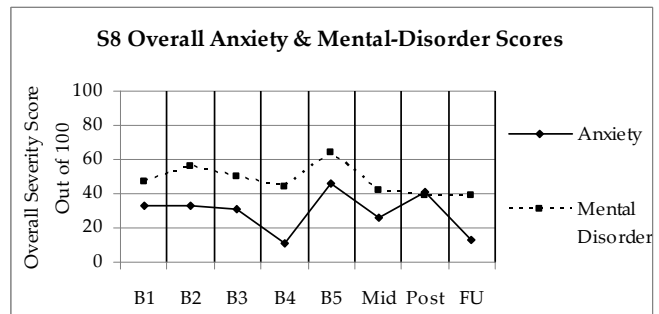
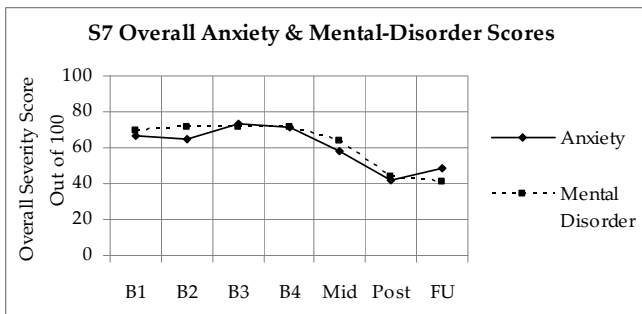
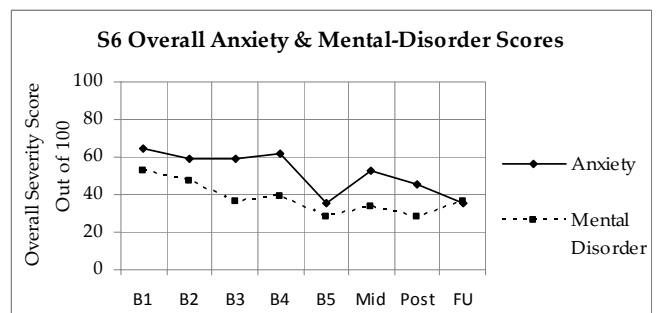
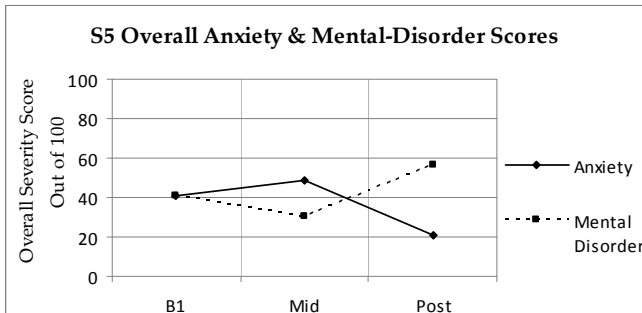
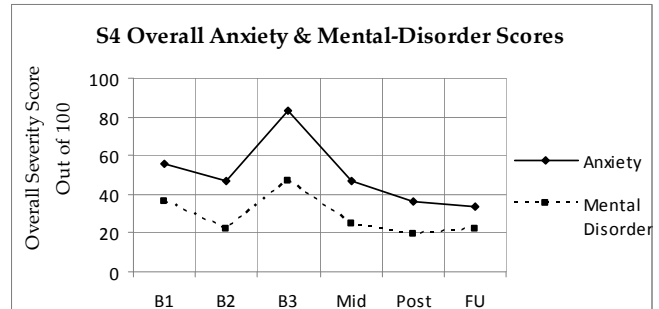
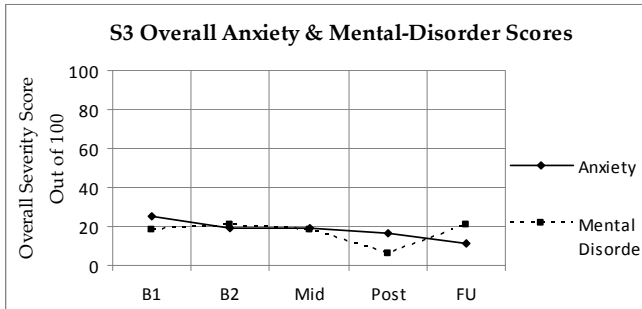
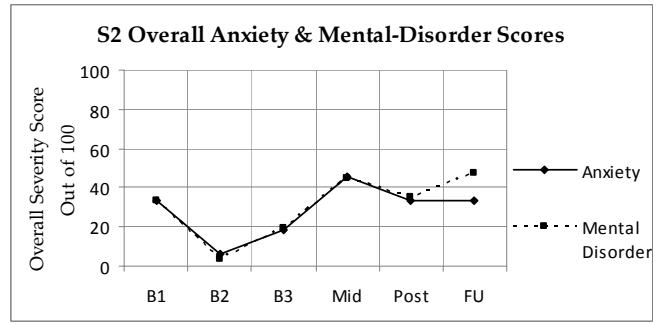
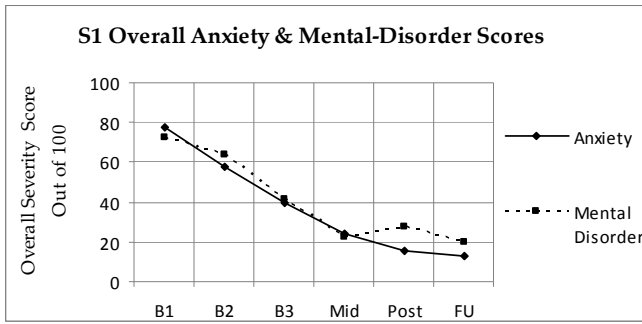
Follow-Up = Follow-Up questionnaire, delivered one month after the final session.

* S5 and S9 completed only one baseline measure.

All participants completed midway evaluations. One participant did not complete the post-programme evaluation but completed follow-up evaluation. Another completed post-programme evaluation but did not complete follow-up evaluation. As such, there are only eight, as opposed to nine, observations at each the post-intervention and follow-up measurement points and seven participants with complete data sets.

To investigate changes in severity, participants' post-intervention and follow-up scores were compared to the range of scores they obtained during the baseline period. This yielded a range of change. A negative value represented a decrease in score. A zero value represented no change. A positive value represented an increase. Change ranges comprised entirely of negative values indicate a clear decrease in score that did not overlap with baseline. Entirely positive ranges indicate a clear increase in score. Mixed positive, zero and negative ranges showed an overlap with baseline measures and represented no change. The results of this analysis of anxiety and mental-disorder scores are presented in tables 7 and 8 respectively.

Fig 2: Overall Anxiety & Mental-Disorder Scores



Graphs show overall anxiety and mental-disorder PQ scores for each participant at:

- Baseline (B1, B2, B3, B4, B5)
- Midway through the intervention (Mid)
- Post-intervention (Post; the week of completion)
- Follow-up (FU; one month after completion)

Severity scores are expressed as points out of 100.

Five participants' anxiety scores improved at the post-intervention data collection point, but one of these people completed only one baseline measure and their result should be treated with additional caution. Three participants' change ranges included mixed increase/decrease/no change results and indicated no reliable change. There were no participants with increases in their anxiety scores at post-intervention. Data for S9 was not available at the post-intervention measurement point.

Table 7: Personal Questionnaire Results for Anxiety Scores

	No. of Baseline Collections	Anxiety Baseline Range	Change Range from Baseline to Post-Intervention	Change Range from Baseline to Follow-Up
S1	3	40.00 – 77.77	-24.44 to -62.21	-26.67 to -64.44
S2	3	6.25 – 33.33	+27.08 to 0.00	+27.08 to 0.00
S3	2	19.44 – 25.00	-2.77 to -8.33	-8.33 to -13.89
S4	3	47.22 – 83.33	-11.11 to -47.22	-13.89 to -50.00
S5	1	41.03*	-20.52	Unknown
S6	5	35.71 – 64.28	+10.44 to -18.13	0.00 to -28.57
S7	5	64.44 – 73.33	-22.24 to -31.11	-15.55 to -24.44
S8	5	11.11 – 46.15	-5.12 to +29.92	+1.71 to -33.33
S9	1	73.81*	Unknown	-7.14

Note: '-' denotes a decrease in score by the stated number of points.

'+' denotes an increase in score by the stated number of points.

* S5 and S9 completed only one baseline evaluation.

Four participants showed anxiety score improvements at post-intervention, which maintained at follow-up (S1, S3, S4, S7). A fifth participant (S5) showed improvement at post-intervention, but their follow-up score is missing. A sixth participant (S9) did not complete post-intervention evaluation but demonstrated improved anxiety score at follow-up. Finally, three participants' anxiety scores remained unchanged at follow-up (S2, S6, S8).

The same method investigated whether any changes had occurred in participant mental-disorder scores (Table 8). At post-intervention, five participants' overall mental-disorder scores had improved relative to baseline range (S1, S3, S4, S7, S8). One participant's mental-disorder score remained unchanged (S6). Two participants' mental-disorder change ranges indicate an increase in their mental-disorder scores at the post-intervention point (S2, S5). S9 did not complete post-intervention evaluation.

Table 8: Personal Questionnaire Results for Mental-Disorder Scores

	No. of Baseline Collections	M.I. Baseline Range	Change Range from Baseline to Post-Intervention	Change Range from Baseline to Follow-Up
S1	3	41.66 – 72.22	-13.88 to -44.44	-22.22 to -52.78
S2	3	3.29 – 33.33	+32.00 to +1.96	+43.77 to +13.73
S3	2	18.18 – 21.21	-12.12 to -15.15	+3.03 to 0.00
S4	3	22.22 – 47.22	-2.78 to -27.78	00.00 to -25.00
S5	1	41.03*	+15.41	Unknown
S6	5	27.78 – 52.77	0.00 to -24.99	+8.33 to -16.66
S7	4	69.23 – 71.79	-25.64 to -28.20	-28.20 to -30.76
S8	5	44.44 – 63.88	-5.56 to -25.00	-5.05 to -24.49
S9	1	72.62*	Unknown	+1.74

Note: '-' denotes a decrease in score.

'+' denotes an increase in score.

* S5 and S9 completed only one baseline evaluation.

At follow-up, three participants' mental-disorder change-ranges remained indicative of an improvement compared to baseline (S1, S7, S8). A further three participants' follow-up mental-disorder change-ranges indicated no change compared to baseline (S3, S4, S6). Two participants' mental-disorder change-ranges indicated increases at follow-up compared to

baseline (S2, S9), remembering that S9 completed only one baseline measure and their result may not be reliable. Follow-up data is not available for the final participant, whose score had increased at post-intervention (S5).

The programme therefore appears effective at reducing anxiety severity for 62.50% of participants (5/8) at each post-intervention and follow-up. With complete data sets this may have increased to 6/8 participants. The degree of change is marginal for some people and moderate for others. Reductions in mental-disorder scores were observed in 62.50% participants (5/8) at the post-intervention point but this had decreased to 37.50% (3/8) at one-month follow-up.

3.2.3.2 Medication Changes

Seven of the nine Engage study participants were taking medication during baseline and continued to take medication throughout the programme (see Table 6). Two participants increased their medication regime during the intervention (S4, S5). Where S4 and S5 initially showed improvements in their mental-disorder scores, the improvements disappeared when their medication was increased. One participant (S9) reduced their medication midway through the intervention due to unwanted side-effects and their initial mid-point improvements deteriorated after that. All other participants' medication regimes remained stable.

3.2.4 Diary Card Results

Diary cards tracked whether there were any changes in the day-to-day emotional experiences of the participants. Participants made global daily ratings for each emotion on a scale of 0-5. Participants distinguished their experiences in 1–0.5-point increments. Linear trendlines indicating at least a 0.5-point increase or decrease suggested a noticeable change in the participants' experience of that emotion over the course of the intervention.

Diary card information is available for seven of the nine participants. Two participants did not complete diary cards on a regular enough basis to allow for an analysis. Diary card results for each of the seven participants with complete data sets are presented in figures 4.1–4.6 in Appendix Two. Five of the seven participants who completed their diary cards on a regular basis appeared to show a decreasing trend in their daily anxiety experiences (S1, S4, S6, S7, & S8). No participants showed an increasing trend in their daily anxiety experiences and two participants showed either no change (S2) or a change of less than 0.5 points (S3). Relating to anger, four participants' daily ratings showed a decreasing linear trend at the completion of the intervention (S1, S3, S6, & S8). S4's anger ratings appear to have increased from a zero rating to a rating of one. Two participants' anger ratings remained stable (S2 & S7).

Regarding shame, two participants showed (S1 & S6) a decrease in their ratings of 0.5 points or more. Two participants (S3, S8) showed an increase in their shame ratings of 0.5– 1

point. Three participants (S2, S4 & S7) showed no change (or a change of less than 0.5 points) in their shame ratings. Facilitators defined pain to the participants as being a state of general emotional distress. Two participants showed 0.5-point decreases in their daily pain ratings (S6 & S8). The remaining five participants showed no change in their daily pain ratings. Four participants' daily ratings of sadness showed a decrease of 0.5 points to 1 point at the end of the intervention (S4, S6, S7 & S8). Three participants' sadness ratings remained stable. No one's sadness ratings increased over the course of the programme. Three participants' daily joy ratings showed an increasing trend at the end of the intervention (S1, S3 & S6). Four participants' daily joy ratings showed no change.

3.3 Discussion

3.3.1 Evidence of Elements of Core Pathology

An examination of the items tracked by the participants on their PQ (see Tables 4 and 5) allows an investigation into what elements of NA the participants of Engage believed relevant to their anxiety experiences. Avoidance, probability bias, and low self-efficacy were the most common items tracked on the PQs, with 88.88% of the participants reporting that these factors made significant contributions to their anxiety experiences. Thus, the majority of the participants had a tendency to avoid anxiety-related stimuli, expect negative outcomes or reactions, and to believe they do not cope very well.

Only 33.33% of the participants reported that suppression was part of their problematic anxiety experiences. Suppression may have been lacking status as an issue for the remaining six participants. Alternatively, it may be that those participants were not aware of suppression and so did not think to mention it. Suppression is an example of 'not doing' expression or a cognitive activity. Its success rests partly on it remaining unconscious. Participants mostly mentioned items that required positive action, rather than things that were more passive. For example, they report actively avoiding anxiety-producing situations, thinking that bad things will happen and they will handle them badly. Where avoidance is behavioural, suppression is more of a cognitive activity, which may make it less consciously accessible to the participants. 88.88% of study participants reported experiencing a low mood or sadness, reinforcing the idea that anxiety and sadness may be structurally related (Plutchik, 2000). This may mean that variables which the participant had little awareness of, but which nevertheless may be highly relevant might not be included in their questionnaire.

While only three participants report habitual suppression as part of their anxiety experiences (S2, S4, S9), in-session behaviour anecdotally suggests that S1, S3, S5, S6, S7 and S8 also engage in high levels of suppression. Although they did not report this in their interviews, their reports placed high importance on relaxing and appearing relaxed. Additionally in group discussions, the six participants report attempting to hide their anxious responses from other people. Where most participants became comfortable expressing their anxiety experiences in the group environment, participants S2 and S9 did

not to the same degree. The two continued to report high levels of anxiety in response to talking in the group and did not disclose this when it was happening until after the mid-programme evaluation point. Group interventions provide opportunities for exposure to social-anxiety-relevant experiences and eight of the nine participants reported social anxiety was significant to them. The two participants who did not seem to habituate to the anxiety produced by the group experience also endorsed greater suppression (S2 & S9; see Table 4), suggesting that greater endorsement of suppression may act as a barrier to effective outcomes in this intervention. Research suggests the use of suppression may hamper habituation in such a way (Wegner, et al., 2006). However, S4 also endorsed greater suppression but did appear to habituate to the group (see Table 5). S4 appeared to differ from S2 and S9. From the first session S4 began to disclose their feelings of anxiety about the group and their observation that their anxiety-related concerns did not eventuate. Greater endorsement of suppression did not necessitate the hindrance of intervention effects, but it did appear to increase the chances that the intervention be less effective.

The data from the PQs combined with the anecdotal evidence from the sessions shows that habitual suppression may be relevant across all diagnoses represented in this study. A proportion of people may be unaware of their tendency to use suppression or the role it plays in their anxiety experiences. The roles of attention, attribution or anxiety sensitivity cannot be concretely commented upon, because the items tracked on the PQs did not directly evaluate each of those constructs. Other research, though, provides consistent evidence to

suggest that attentional vigilance and attributional inflexibility influence the symptom severity of each of the diagnostic categories explored here. Similarly, there is evidence for a transdiagnostic presence of the fear of dyscontrol that is involved in anxiety sensitivity (Tull & Gratz, 2008).

Avoidance, the expectation of negative outcomes, and low self-efficacy appears relevant across every kind of diagnosis represented in this study: depression, bipolar disorder, psychosis, GAD, schizoaffective disorder and paranoid schizophrenia. Some transdiagnostic researchers have claimed that self-efficacy is relevant to only a narrow range of diagnoses and have excluded it from reviews examining the convergence of different traits across diagnoses (Mansell, et al., 2009). The results of this literature review and study suggest that low self-efficacy may indeed play a transdiagnostic role in psychopathology and, along with avoidance and probability bias, could be involved in NA. The data on suppression is even less conclusive, but in-session observations support the notion that it may be important across the multiple diagnostic categories involved in the present study.

3.3.2 Intervention Acceptability

Results from the Youthline Feedback Survey suggest that the Engage intervention was acceptable to the participants. Every study participant rated Engage as being helpful to them. However, not every participant showed improvements in their anxiety or mental-

disorder severity, and some showed deterioration, suggesting that the PQs may have excluded items of relevance. Further research into what constitutes 'helpful' in the eyes of treatment participants is warranted. The divergence between acceptability ratings and the results of the PQs suggests that treatment acceptability and/or 'helpfulness' are comprised of more than reductions in symptom severity or improvements in conscious coping behaviours. It may be that the supportive aspects of the group provided participants with a sense of belonging and shared experience, which they found comforting, but which did not always transfer into actual symptom changes. Indeed, research has shown that avoidant coping is partially mediated by perceived social support (Gomez & McLaren, 2006). The PQs questioned participants on their level of social interaction, but did not question them on their sense of social support. It may also be that the participants developed skills that helped them to cope with anxiety and/or mental disorder, which were not included in the PQ. In hindsight, the PQ procedure may be enhanced by engineering the item selection process to ensure that certain factors, potentially outside of the participants' awareness are not automatically excluded.

The study setting provided the researcher with comments left on the anonymous feedback surveys by participants, which supplied a final set of acceptability data. The majority of the statements were positive: "well facilitated, encouraging, accommodating" and "lots of positive support". Two statements appear worth mentioning: "It was very difficult and challenging for me, but worthwhile and rewarding" and "I found helpful. Sorry it was

hard to take on board.” These statements indicate that while all of the participants found the experience helpful, some found it particularly difficult. The latter comment seems to suggest that the learning experience had not yet been translated into action. However, their subjective perception was still that the Engage intervention had been helpful for them. For some, the informational format may be helpful, but insufficient. They may have required additional time for the information to generalise into behaviour. It may be that the potential frustration involved in inhabiting the space between knowledge and behaviour, played a part in the mental-disorder severity score increases noted for three participants. Difficulty does not appear to be part of the participants’ conceptualisation of helpfulness. That 100% of the participants found the intervention helpful suggests that diagnosis does not influence intervention acceptability.

3.3.3 Changes in Anxiety Severity

The Engage intervention appears to be associated with improvements in anxiety severity for 62.50% (5/8) of the participants at post-intervention and 62.50% (5/8) of the participants at follow-up. The results are somewhat comparable to transdiagnostic group CBT showing symptom reductions for 66% (Norton & Hope, 2005) to 75% of participants (Lumpkin et al., 2002). The presence of possible outliers in the data of two participants (S2, S8) potentially affects the pattern of the current results. If the outlier in the data for S2 is ignored, they no longer evidence any increase in their anxiety scores, and the increase in

mental-disorder score is vastly reduced. When the outlier in the anxiety data for S8 is ignored, they no longer evidence unchanged anxiety, but show signs of improved anxiety scores. Additionally, the diary card results for S8 indicate a decreasing linear trend for anxiety experiences, supporting the notion that their anxiety experiences improved in response to the intervention. Thus, the intervention may have been more helpful than the PQ results show on their own. It may also be that some people require more time to achieve noticeable results. Beck reports in a foreword to a recent book, that cognitive therapy was effective for his patients with depression in ten to fourteen weeks, but that some clients required up to two years to achieve the same results (Beck, 1995). The same may be true here.

The effects are less profound with the present education-support programme than other full treatment protocols. Most improvements are slight, while some are moderate, with reductions in overall anxiety severity ranging from just 8.33 points for S3 and for S1 ranging from 26.67 points. However, both of these participants would possibly no longer classify as having problematic anxiety, with their follow-up scores sitting at 11.11 points and 13.33 points, respectively. In all, the number of people for whom the programme aided appears to be in line with what other treatment studies report. The reduced strength of effect is in line with studies showing that education and support programmes yield results comparative to treatment-as-usual, but that the effects of education and support programmes are neither as

strong nor well maintained (Heimberg, et al., 1990; Den Boer, Wiersa, Ten Vaarwerk, et al., 2005).

Elements that are considered vital parts of full transdiagnostic protocols are missing from the current intervention. These missing components could be partially responsible for the reduction in treatment effect. One of the main components missing from Engage is explicit attention to planning and carrying out in-session exposure for each participant. All of the transdiagnostic and group treatments reported in the previous sections included protocols that assisted participants to plan for exposure to their feared stimuli and/or carried out that exposure in sessions (Norton, 2009). The rationale for exposure and encouragement to enact it are provided in the Engage intervention; planning for its enactment is left to participants independently. The implementation of in-session exposure may thus be a crucial factor in the creation of a larger effect size. Gradual exposure may provide people with assistance in moving from a conceptual level to a behavioural level, opening up opportunities for further experiential learning. Evidence suggests that treatments without planned exposure are still beneficial, but the treatments involving exposure outperform them (Wolitzky-Taylor et al., 2008). A reduced degree of change could also be owing to the presentation of the psychoeducational aspects of the programme prior to the implementation of the behavioural. Presenting psychoeducation first may transmit messages that complete understanding is necessary before being able to implement strategies and may inadvertently reinforce the participants' intolerance of uncertainty (Erickson et al., 2009).

3.3.4 Anxiety Change, Type of Anxiety & Primary Diagnosis

For the participants who showed improvements in their anxiety severity (S1, S3, S4, S7, S5, S9), anxiety-related concerns include panic attacks (S3, S7), social anxiety (S1, S4, S5, S9, S7), fear of disapproval (S3, S4, S9), past trauma or stress (S1, S7), attachment anxiety (S5), health anxiety (S9, S7), role performance (S3, S5, S4, S7), decision making (S7), physical safety (S1), ability to cope (S1, S3, S4, S5, S9, S7) and public places (S1, S3, S4, S7).

The participants who showed unchanged anxiety severity (S2, S6, S8) reported subsyndromal and clinical anxiety relating to social anxiety (S6, S8, S2), past trauma or stress (S2), anxiety about public places (S6, S2), decision making (S6), physical safety (S2, S6), fear of disapproval (S2, S8) and ability to cope (S8, S2). S2 had a primary anxiety disorder (GAD) and two comorbid diagnoses, which may have further confounded the intervention's effectiveness for them. However, comorbidity has had little to no effect on treatment outcomes in other studies (E.G: Brown, et al., 1995). Both change and no-change groups have anxiety experiences related to many of the same constructs. Anxiety content seems not to account for whether an individual experienced an improvement in their anxiety levels or not. Therefore a range of anxiety problems might be improved via transdiagnostic education and support.

Primary diagnosis also seems not to predict anxiety change or no-change. Primary diagnoses ranged from unipolar depression, GAD, bipolar disorder, psychosis, schizoaffective disorder and paranoid schizophrenia. Both the anxiety change and no-change groups included people with schizophrenia-spectrum disorders, mood disorders and anxiety disorders. Of the three participants who did not show improvements in their anxiety levels, S6 and S8 both had schizophrenia-spectrum diagnoses. S6 had experienced a significantly stressful event during the intervention and S8's results may be the byproduct of an extremely low outlier. Of the five participants whose anxiety severity did improve, two also had schizophrenia-spectrum diagnoses (S3 = psychosis and S4 = schizoaffective disorder). The equal split suggests transdiagnostic educative approaches may help to reduce anxiety severity for people with schizophrenia-spectrum diagnoses. It may be appropriate to include people with a wider range of disorders in the same anxiety intervention. In this study, neither content nor primary diagnosis predicted anxiety improvements, providing support for the notion of core pathology. Factors other than type of diagnosis may be involved in determining the effects of the intervention.

For instance, age may have played role. The age range of the change group fell between 19 and 42 years of age. The age-range of the no-change group fell between 36 and 58 years of age. While there is a degree of overlap between the ages of both groups, the no-change group tends to be older. Similarly related, length of time with the diagnosis may be an important factor.

A number of participants reported stressful life events during the course of the intervention; two out of three of the anxiety no-change group (S2 and S8) and the two older people in the anxiety change group (S5 and S9) reported experiencing a death in the family, a marital separation, major health problems, or a change in occupational duties during the intervention. Three of those reporting stressful events are also the only people who showed deterioration in their mental-disorder severity (S2, S5, and S9). Stressful life events may be an important barrier to the effectiveness of the intervention.

Isolation may be another factor. The anxiety no-change group was entirely comprised of participants who had lived alone for a number of years or who lived in a community-based, supported accommodation alongside other people affected by severe mental disorder. The anxiety change group all lived with family members such as their children or parents and siblings or in a flatting situation. The change group may have had access to social and familial supports lacking in the no-change group. The additional supports and/or social contact could provide additional experiential learning opportunities for the change group between intervention sessions. The no-change group would have had to exert additional effort in order to access the same learning experiences. The participant living in a residential setting may have found it more difficult to access normative social-learning experiences due to the high levels of mental-disorder severity in the people around them. It may also be that

the no-change group's relatively isolated living arrangements were indicative of greater severity and illness-related disruption than the change group to begin with.

Consistent with other transdiagnostic research, anxiety improvements were not visibly related to the kind of anxiety the person reported at baseline or their primary diagnostic category. The anxiety change and no-change groups appeared to be distinguished by factors potentially related to age, duration of disorder, isolated living situation and/or the presence of stressful life events rather than the content of anxiety experiences or diagnosis. The results of the anxiety section of the PQs appears to support the benefit of making a transdiagnostic approach to anxiety available to heterogenous groups.

3.3.5 Changes in Untargeted Mental-Disorder Severity

The mental-disorder scores, which indicate the severity of untargeted mental-disorder diagnoses, initially showed changes that were in line with those observed for the anxiety results; 5/8 participants show an improvement in mental-disorder severity at post-intervention. One participant (S6) had unchanged mental-disorder scores and unchanged anxiety scores at post-intervention. These results appear to suggest that these participants' mental-disorder and anxiety scores moved in concert with each other, possibly due to the influence of targeted core pathologies, providing support for a transdiagnostic model.

However, two participants showed deterioration in untargeted mental disorder at post-intervention (S2, S5) and at the same time showed stable (S2) or improved anxiety scores (S5). S9 did not complete post-intervention data collection, but at follow-up their PQ scores mimicked the same pattern. This suggests that anxiety and mental-disorder severity were at least partially independent of each other for these people. Additionally, one participant (S8) showed improved mental-disorder ratings and unchanged anxiety ratings at the post-intervention point. However, an unstable baseline and an extremely low anxiety outlier could be skewing their results. Without the outlier, S8, who has paranoid schizophrenia, shows improvements on both anxiety and mental-disorder scales of the PQ. Replication is necessary but these results suggest that anxiety and mental-disorder scores moved in concert for most but not all of the current study participants.

In total, three participants showed deteriorated mental-disorder severity. Similar to the anxiety no-change group, the mental-disorder deterioration group have high rates of stressful life events during the evaluation period and increased isolation. Stressful events have been associated with increased incidence of mental disorder and greater severity in a number of studies (e.g., Kendrick, 1999; Regier, Farmer, Myers, et al., 1993). Overall mental-disorder score increases were not reflected in heightened levels of distressing emotion as measured by the daily diary cards. Coupled with participant reports of finding the intervention helpful, the cause for concern was not great. Nevertheless, these participants

were offered follow-up telephone support until they reported not needing it or were also embedded within other supportive structures that would meet their needs.

Mental-disorder improvements were not maintained on the whole at follow-up (3/8). The effects of the intervention on untargeted mental disorder appear not to endure for some participants. The poor maintenance of mental-disorder improvements and their lack of correspondence with anxiety change for some participants could be an indication that other factors are involved, outside of any core pathology targeted by the intervention. If between-category core pathologies are in play, one would expect the mental-disorder results to behave in a similar fashion to the anxiety results. On the contrary, here the anxiety results were more enduring. Two of eight participants showed enduring improvements in both anxiety and mental-disorder scores. A third participants' results would mimic that pattern without the low outlier in their data set. While it remains possible that the current intervention did not wholly address the core pathology, the data support both the idea that there is a shared area of pathology across the anxiety, mood and schizophrenia-spectrum disorders and that other person-specific factors are involved. The Tripartite Model of Anxiety (Clark & Watson, 1991), also suggests the presence of both shared and distinct factors between mental disorders.

The present study is consistent with other research (e.g., McEvoy & Nathan, 2007), supporting the notion that different diagnoses are affected by some shared factors and also

by some individual- and possibly diagnosis-specific factors. The results give some support to the notion that people with paranoid schizophrenia, psychosis and schizoaffective disorder, may benefit from access to transdiagnostic protocols alongside people with anxiety and mood disorders.

3.3.6 Untargeted Mental-Disorder Change and Primary Diagnosis

Consistent with a transdiagnostic model, improvements in untargeted mental-disorder severity do not appear to relate to primary diagnostic category. The mental-disorder improvement group (MD-change) was comprised of individuals with diagnoses of bipolar disorder, unipolar depression, psychosis & unipolar depression, paranoid schizophrenia and schizoaffective disorder (S1, S3, S4, S7, S8). At post-intervention the mental-disorder no-change group (MD-no-change) was comprised of three participants who's results showed either deterioration or remained stable (S2, S5, S6) with diagnoses of GAD, unipolar depression and schizoaffective disorder. Multiple diagnostic categories are present in both the MD-change and MD-no-change groups. Mental-disorder change was maintained at follow-up in only three of the participants. Two of the people with enduring mental-disorder improvements had primary mood disorders in the form of unipolar depression and bipolar disorder. Both of them also showed improvements in anxiety severity. The third participant with enduring mental-disorder improvements (S8) had a

diagnosis of paranoid schizophrenia. Again, primary diagnosis does not appear to predict whether mental-disorder severity improved or not.

Effects on untargeted diagnoses are not limited to the mood disorders. The only two participants (S1, S7) with an enduring improvement in both their anxiety and mental-disorder severity had primary diagnoses of mood disorders. However, some of the people who showed initial improvements on the mental-disorder scale at post-intervention evaluation did not have a primary mood disorder (S3 psychosis; S4 schizoaffective disorder; S8 paranoid schizophrenia). The transdiagnostic concept of core pathology may extend beyond the mood disorders, but the effects may be more enduring for the mood disorders. Medication status also had a potential effect (see section 3.3.7). This study is too small to allow for a more detailed analysis into diagnosis and treatment outcome. However, the results provide partial support for transdiagnostic processes while also highlighting the potential roles of extraneous, person- or disorder-specific variables.

3.3.7 Medication Effects

The use of medication during a psychological intervention has been associated with reduced effects and high relapse rates once the intervention is discontinued in multiple studies (e.g. Wardle, 1990; Raffa et al., 2008; Sanderson & Wetzler, 1993). Three of the participants on stable medication regimes throughout the intervention showed no anxiety-

severity improvement in response to the intervention. However, four of the six participants who showed anxiety improvement at any point were taking medication throughout the intervention and follow-up period. With the exception of some missing data, these results were maintained at follow-up. While their improvements were of a lesser magnitude than those who were unmedicated, taking medication does not appear to have prevented the intervention from having any effect at all. In this case, the use of psychotropic medication may have impaired the magnitude of anxiety improvement.

Additionally, it appears that the use of medication hampered the enduring generalisation of treatment effects across diagnostic categories. The two participants who were not taking medication at any stage of the study were the only two participants with enduring improvements in both their anxiety and untargeted mental-disorder scores. Untargeted mental-disorder improvements returned to baseline during follow-up for the participants who were taking medication, with the exception of S8. No other studies have reported on the impact of medication on transdiagnostic treatment effects specifically. It appears that medication status may have impeded the maintainence of intervention effects on untargeted mental-disorder.

Some participants' improvements were arguably related to medication changes during the intervention. For example, S5 showed anxiety-severity improvements while their dose of Fluoxetine and Quetiapine had both been increased in the final weeks of the intervention.

The medications are primarily intended to treat the subject's depression diagnosis, which actually showed an increase on the PQ, making it seem less likely that the medication increase was responsible for the participant's improved anxiety severity. However, it remains a possibility. S4 showed anxiety severity improvements and Epilim, a sodium valproate, had been increased during the follow-up period. S4 had already shown signs of improvement in anxiety severity prior to this increase in Epilim dosage. This participant had also stopped taking Olanzapine during the intervention and discontinued the use of Clonazepam as a PRN medication, two further positive indicators. While some participants' results may have been related to medication changes, the majority of participants who showed improvements were either not taking medication or remained stable on medication regimes that had been established for a prolonged period of time. Overall, in this study, the absence rather than the presence of medication is associated with improved results.

3.4 Conclusions

The anxiety disorders represent a spectrum of over twenty different anxiety-related mental disorders. While each has distinguishing features, they share many common features such as attention biases, habitual suppression and avoidance, intolerance of uncertainty, external locus of control, low self-efficacy and inflexibility (See Fig 3). The anxiety disorders co-occur at high frequencies, both with each other and with other mood disorders, (particularly depression), and to a lesser degree the schizophrenia spectrum. Sub-syndromal anxiety appears to be an associated symptom of many other psychological disorders

including schizophrenia, schizoaffective disorder and psychosis. These disorders involve attentional and information-processing biases and behavioural rigidities, similar to but still different from those involved in the anxiety disorders.

The transdiagnostic model suggests that these functional similarities represent useful treatment targets. Data from studies investigating protocols based on the construct of core pathologies suggest that transdiagnostic approaches to treating heterogeneous anxiety disorders are comparable in effectiveness to diagnosis-specific group CBT. These treatments have been associated with reductions in the severity of anxiety disorders and untargeted mood disorders.

The Engage programme applied the transdiagnostic approach to a support and education group for people with both heterogeneous anxiety (subsyndromal or clinical) and mental disorder. The results of this study suggest that the transdiagnostic approach reduces anxiety severity for a majority of participants, regardless of what type of anxiety or mental disorder they experience, even when delivered in an educational-supportive format. The improvements are small to modest, particularly in comparison to full transdiagnostic treatment protocols, though signs of the same transdiagnostic processes are apparent.

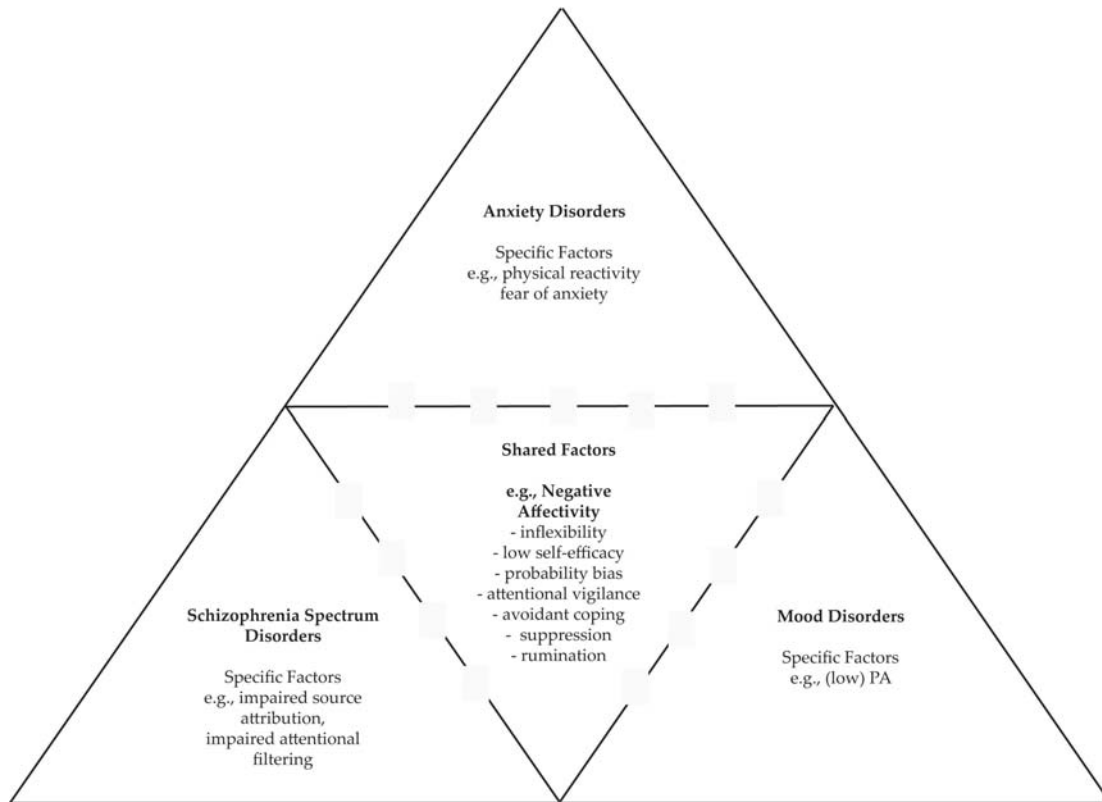
Neither anxiety nor untargeted mental-disorder improvement appeared to be related to the type of anxiety experienced or the participant's primary diagnosis. Transdiagnostic

effects on untargeted mental disorder were initially apparent in a majority of participants, but at follow-up had diminished in the participants who were taking medication throughout the programme. The results provide some support for the notion that anxiety disorders share core pathology with each other and with other untargeted mental disorders. A reduction in the profundity of effects for the current support-and-education format and the non-maintenance of mental-disorder change suggest that transdiagnostic effects on untargeted mental disorders may require the full treatment protocol in order to be maintained across diagnoses, especially when participants are medicated. Medication status appeared to interact with transdiagnostic effects. The use of medication was universally associated with a reduction in cross-category improvements at follow-up. Medication may need to be managed in order to achieve better-maintained transdiagnostic effects. This study provides some support for the notion that psychotropic medications interfere with transdiagnostic intervention effects.

The results suggest that schizophrenia, schizoaffective disorder and psychosis may be affected by the factors involved in NA and anxiety. Additionally, the results may demonstrate that it is possible for disorder-specific and shared factors to operate independently as well in reciprocity. The data suggest that other factors not measured in this study (such as stressful life events and isolation) are probably also involved. This is in line with recent research suggesting that transdiagnostic treatments need to include elements of diagnosis-specific treatments when needed (Clarke & Taylor, 2009; Erickson, et al., 2009) and

is supportive of a transdiagnostic account of mental disorder (Mansell, et al., 2009). A model allowing for both shared and specific factors, such as Clark & Watson's Tripartite Model of Anxiety and Depression (1995) appears to be the most likely representation of what the transdiagnostic model offers. However, a wider range of diagnoses than anxiety and depression appear influenced by the factors involved in NA, and models need to also account for the schizophrenia spectrum (for an example, see Fig 3).

Fig 3: A Transdiagnostic Model of Mental Disorder



A Universal Range, Multiple Process model demonstrating the potential relationship between possible shared factors related to NA and multiple mental-disorder diagnoses. Shared factors interact with person-specific and disorder-specific factors (and vice versa) to give rise to the various expressions of disorder.

A number of Engage participants went on to become involved in other treatments, suggesting that programmes such as this may help people to overcome the barriers to accessing a wider range of recovery partners. This study supports the extension of the transdiagnostic approach to a support-group format as a useful adjunct or precursor to other empirically supported treatments. Support is provided for the notion that people with unipolar depression, bipolar disorder, schizoaffective disorder and paranoid schizophrenia can benefit from taking part in a transdiagnostic anxiety education and support group together. The participants with schizoaffective disorder and psychosis were no less able to participate in the group and engage in the homework activities than participants with mood disorders. The participant with schizophrenia appeared to struggle with some of the more abstract material and reported difficulty following instructions, possibly a result of impaired attentional filtering. However, they still reported finding the programme useful and evidenced a reduction in their mental-disorder severity, suggesting that they benefited from their involvement. Several processes would enhance the outcomes of Engage, particularly for people with schizophrenia-spectrum diagnoses, including in-session exposure and a re-ordering of the presentation of programme materials. Additionally, the participants who did not show a reduction in PQ severity scores, or evidenced an increase, may have been assisted by the implementation of individual troubleshooting sessions in week five, as recommended by Erickson and colleagues (2009).

The Engage intervention has been re-delivered since this study was undertaken; again, the intervention includes one person with paranoid schizophrenia, who anecdotally appears to have followed much the same pattern as S8. People with schizophrenia may encounter some difficulty concentrating on and remembering instructions in the group setting. However, it has proven possible to work around these barriers such that the participants with paranoid schizophrenia are able to achieve some benefit also. This has involved the implementation of a one-on-one support session and, with the permission of the client, liaison with their other recovery partners in order to increase their access to support with the material.

None of the people with schizoaffective disorder, psychosis or schizophrenia disrupted the group any more than the participants with mood disorders did. However, none of the participants with schizophrenia-spectrum diagnoses appeared to be in acute phases upon initiation of the intervention. While none of these participants became acute during the intervention, it is a feasible occurrence. This study supports the inclusion of people with non-acute schizophrenia-spectrum diagnoses in transdiagnostic group interventions. While most of their results were not maintained, three out of the four participants with schizophrenia-spectrum diagnoses showed improvements in their mental-disorder severity at post-intervention. All of the participants with schizophrenia-spectrum diagnoses reported finding the intervention helpful. Group interventions addressing anxiety-related factors of NA may have utility for people with schizophrenia-spectrum diagnoses.

This study suggests that it may be appropriate to include people with schizophrenia-spectrum diagnoses in future transdiagnostic research protocols; the representation of this population in the psychological treatment research is hugely malnourished. Any efforts aimed at increasing the accessibility of effective treatments must include this group and research around how best to do so would be advantageous to this aim. While much information exists pertaining to the similarities among the mood disorders, the reverse is true for the schizophrenia spectrum. Research exploring the cognitive and behavioural correlates of schizophrenia-spectrum disorders is much in need. It seems plausible that there is an area of shared core pathology across this diagnostic category too, just as there appears to be in the anxiety and mood disorders. Delineating such an area of shared dysfunction would be a crucial advantage in helping to ensure that the benefits of the transdiagnostic approach to treatment are also made available to this population.

However, Engage was not a replication of another intervention and there were important differences between this intervention and others reported in the literature. The comparability between Engage and other treatment protocols is thus limited. Several other limitations in this study and a number of exceptions in the data make firm conclusions impossible. Most of these limitations are by-products of practical, real-world conditions. Firstly, ethics approval was not granted to obtain third party information about the participants, and so the participants' diagnoses were self-reported and not confirmed with

their clinicians. A number of Engage participants were not initially aware of their formal diagnoses and needed to call and check this with their doctors and psychiatrists, suggesting that clinicians do not always inform their clients of the diagnoses they have made. This introduces the possibility that some of the participants' reported incorrect diagnoses. Corroboration of diagnosis would have been ideal. That said, the participants presented and reported symptoms largely consistent with their self-reported diagnoses. Secondly, as already mentioned, postgraduate psychology students and a trainee psychotherapist facilitated Engage. Results may have improved were the intervention implemented by fully trained clinicians.

Thirdly, due to practical reasons, such as insufficient funding and time, the researcher here is also the programme designer and the lead facilitator. There is therefore risk of observer biases in the collection and interpretation of this data. Indeed, dropout rates were low: the only person to leave the programme was also the only person not taking part in the study. This suggests the possibility that the Hawthorne Effect may be influencing these results. The lead researcher was also the lead facilitator and it is possible that they transmitted expectations about the study to the intervention participants. Every effort was made not to do so. On several occasions, participants expressed concerns about the effect their progress had on the study. On those occasions, the researcher/facilitator de-emphasised the importance of the study's outcome, and refocused the participants onto their own experiences.

Time constraints also meant that data collection could not continue until baselines stabilised, a serious departure from the rationale of the multiple-baseline design (Barlow & Hersen, 1984). The between-subjects multiple-baseline design intended to compensate for the lack of a control group, as each participant is an attempted replication (Barlow & Hersen, 1984). A lack of stable baselines means that other explanations for the results cannot be ruled out. It is possible that the participants' endpoints were part of their normal weekly fluctuations in mood, that other extraneous variables could account for any observed changes or that they are the result of chance. Further, a minimum of three baseline collection points is the generally accepted standard (Barlow & Hersen, 1984). As already stated there are one or two baseline collection points for some study participants, further weakening the strength of any conclusions drawn from their data (Barlow & Hersen, 1984). Importantly, and for similar practical reasons, there are just nine participants in this study, eight observations at either of the post-intervention evaluation points and seven participants with complete data sets. Because the current study is small and the implementation of the multiple-baseline design had flaws, the results can only comment on what was observed with these subjects in this instance, not the wider population. With more subjects, it is possible that the distribution of results would change. Therefore, while these data may be interesting, all they can do is to suggest further research and independent replication.

Additionally, this study utilised an adaptation of the PQ procedure, rather than the entire procedure, which was too time-consuming. Where Shapiro's (1969) original procedure involved a calibration of the questionnaire items, the adaptation used here did not. The calibration phase involves presenting each item intended for inclusion in the questionnaire to the participant and asking them to rate how frequently the item is relevant to them (Shapiro, 1969). Rather than undertaking this lengthy process for participants, the researcher instead asked the participants which areas were important to them during the interview only. The omission of this process may have led to the selection of questionnaire items that were less relevant than other items.

The PQ is also likely biased towards items that are already represented in the participants' language sets and awareness. Similarly, PQ items may represent partial measures and ought to be treated as descriptive data representing factors participants believe to be relevant. For example, questions relating to attentional bias are limited to difficulty recognising positive elements of self or environment rather than hypervigilance for threat. Likewise, the item only measures the participants' conscious awareness of a difficulty recognising positives. It is possible that the item actually evaluates something other than attention bias, such as attribution or self-efficacy. That said, each item still represented an effect, area of life or aspect of their problem that they believed were important, using language shared by the participants themselves. The procedure may be enhanced by the

addition of investigator-set questions or complementary standardised measures that allow cross-intervention comparisons.

The PQ procedure was preferable to other standardised measures such as Beck's Anxiety Inventory, for a number of reasons. Firstly, the PQ procedure yields data that are meaningful to the participant rather than a series of symptom inventories which may or may not be important to the individual's experience. The PQ-procedure data is rich in within-subject information while also allowing for between-subject comparisons (Shapiro, 1969). Secondly, remembering that there were serious time constraints in the current study, the PQ procedure allowed the evaluation of multiple different aspects of anxiety and mental disorder in one measure, rather than requiring the delivery of multiple different measures. Thirdly, the PQ procedure was already to be included as part of the intervention. The addition of further evaluative materials may have overloaded the participants, who were already completing the questionnaires and diary cards on a regular basis throughout the intervention.

Future research needs to delineate further the correlations between the constituents of NA and each of the diagnostic categories, particularly those with psychotic elements including bipolar disorder and the schizophrenia spectrum. To the knowledge of the author, this is the first explicit attempt at extending the transdiagnostic approach to a support group format and the first study evaluating its outcomes. Studies using a combination of idiographic procedures such as the PQ procedure and nomothetic measures such as the

State-Trait Anxiety Inventory or Beck's Anxiety Inventory would be useful. Independent replication of each of the transdiagnostic treatment protocols as well as the current education-and-support group format is required. There has thus far been only one randomised controlled study of transdiagnostic treatments (Norton & Hope, 2005) and subject numbers remain small. Large-n studies are particularly required. Critical to the development of the transdiagnostic approach is the setting out of clear operational definitions for the variables involved. In particular, research needs to focus on what elements of transdiagnostic interventions are responsible for their observed effects and how far those effects reach (Marks, 2002). Where some participants responded particularly well to the current intervention, a number did not. Research aimed at elucidating what distinguishes the responders from the non-responders would be especially useful.

In conclusion, transdiagnostic support and education programmes such as Engage may be useful additions to other treatment approaches. They may help individuals with a variety of different disorders to modestly reduce anxiety severity, improve untargeted mental-disorder severity, provide social support and skills, and enhance the accessibility of other recovery services. These results suggest that people with schizophrenia may be included in transdiagnostic interventions without disrupting the progress of other participants. The transdiagnostic approach, while requiring much future research, appears to be a very promising means of addressing current and long-standing issues with the accessibility of effective treatments. In emphasising the commonalities among people rather than the

differences between them, a transdiagnostic approach provides a means of enacting more inclusive treatment methods that do not necessitate separating people based on their diagnostic differences.

4 Appendix One – Engage Programme Outline

Phase One – Introduction to the programme and other group members. Participants were introduced to the idea that anxiety is a survival mechanism and discussed what anxiety means for them. Participants were introduced to Diary Cards – a programme-long daily challenge allowing participants to track their emotional experiences and aimed at building their awareness of their emotional experiences.

Phase Two – Understanding emotions: participants were introduced to a slightly adapted version of the 5-part Cognitive Behavioural model of emotions (Greenberg & Padesky, 1995). The weekly challenge involved choosing an experience from their week and filling out a 5-part model for that experience. The support session involved participants discussing their experiences with the challenge.

Phase Three – Understanding Anxiety: the 5-part model was applied to anxiety experiences. The group brainstormed anxiety-producing situations and picked one that they all found anxiety producing. This hypothetical situation was used to fill in a 5-part model as a group. The challenge was for people to complete a 5-part model for one of their own anxiety experiences. The support session involved discussing the challenge and ways of understanding what is going on with each person's anxiety experiences.

Phase Four – Coping with Anxiety: participants were introduced to four different categories of coping – distraction, self-soothing, expression and “living life”, a category that proposes coping via the creation of a positive experience and aims to counter the inflexible use of avoidance. Participants generate a set of practical examples for each category during a brainstorming activity. They then choose two strategies to try out between sessions, for every subsequent session. The support session centres on discussing what the strategies were like to try and how they could be individualised. The focus is on flexibility, being creative and experimenting until the participant finds what works for them.

Phase Five – Small Victories: participants are introduced to information around negative attentional biases. They discuss the importance of trusting their own ability to cope in relation to anxiety. Participants are introduced to a task designed to help them build evidence that they can cope and that things go well sometimes (i.e. the feared stimuli does not always arise). This is added to the back of their Diary Cards and is filled out every night for the remainder of the programme. The support session is centred on discussing the challenge and any difficulties or benefits the participants noticed.

Phase Six – Cognitive Reappraisal: participants are introduced to the concept of thoughts being ideas to be explored rather than truths. This session introduces participants very briefly to beliefs and the foundations for the way in which we think, but focuses on the importance of having a balanced view of a situation, the threats it poses and their ability to

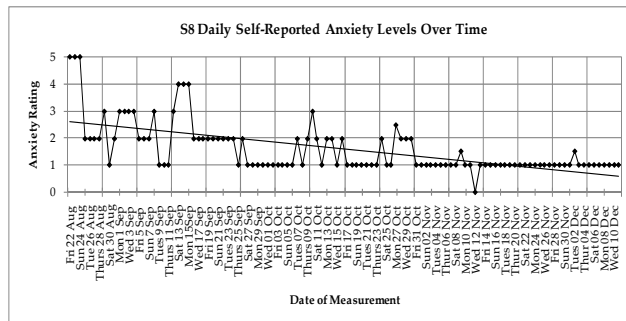
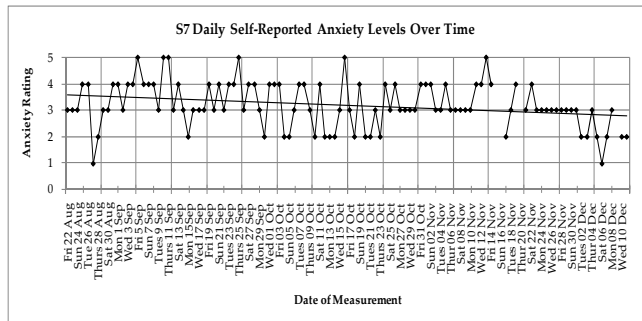
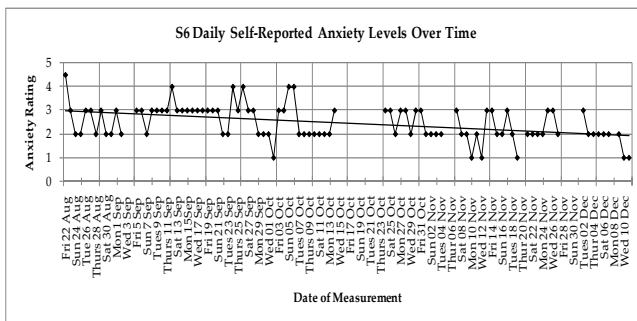
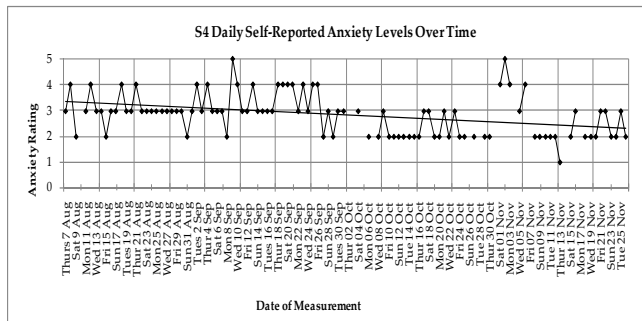
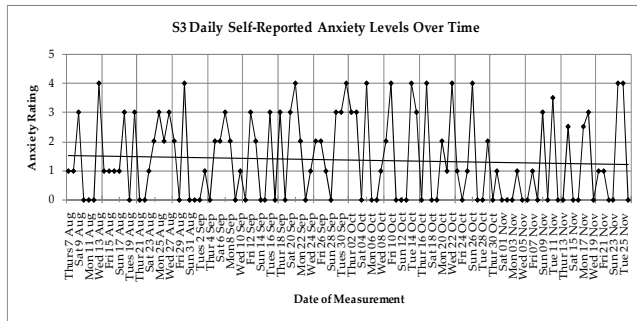
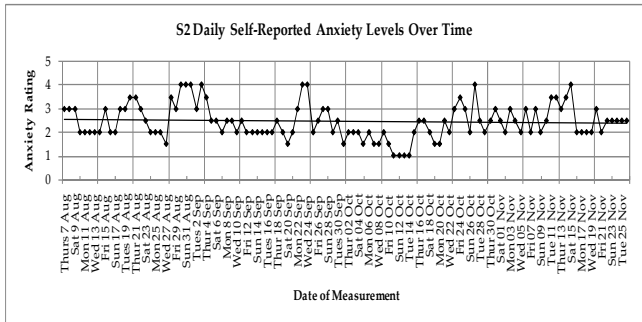
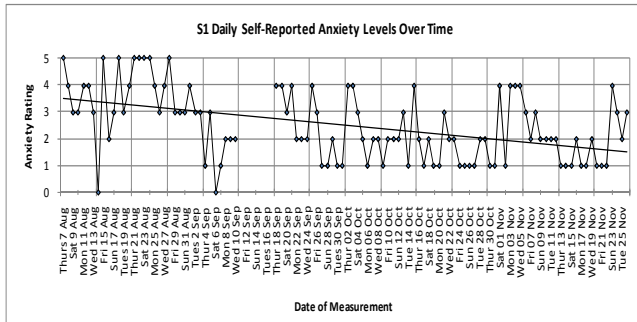
cope. Participants practice completing cognitive reappraisal exercises through an interview role-play. The challenge for the week is to fill out a cognitive reappraisal sheet during the week. The support session discusses the participants' experiences with the task and explores ways to overcome any barriers they encountered.

Phase Seven – Building Resilience: these sessions focused on sharing information around how participants can reduce the risk factors in their lives and enhance their resilience to problematic anxiety. The format of this session was similar to that of phase four. Participants brainstorm ways in which they can create resilience by making small changes to their daily living habits. The challenge involves trying some of these strategies out. The support session focuses on exploring participant experiences with the challenge.

Phase Eight – Relapse Prevention: these sessions focused on transferring the skills learned into everyday life and preparing for the end of the programme. In phase eight, participants compile the strategies that worked for them and the evidence of times they coped well into a resource for them to use at home. In the final session, the participants discuss how they will keep on track with their goals and strategies independently. Following the session, participants are invited to a social setting (a café or the park) to socialise with each other and say goodbye. This also allows the group to celebrate and acknowledge their progress – most participants usually avoid such situations at the outset of the programme. The final outing provides one last experiential learning opportunity.

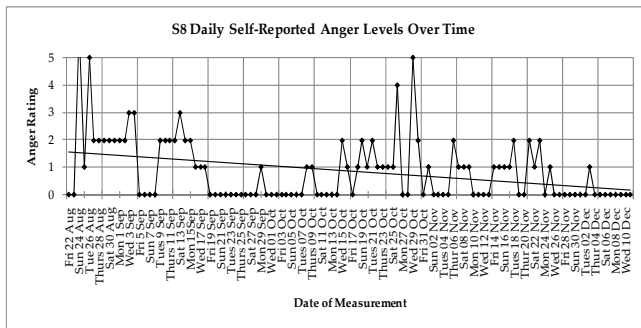
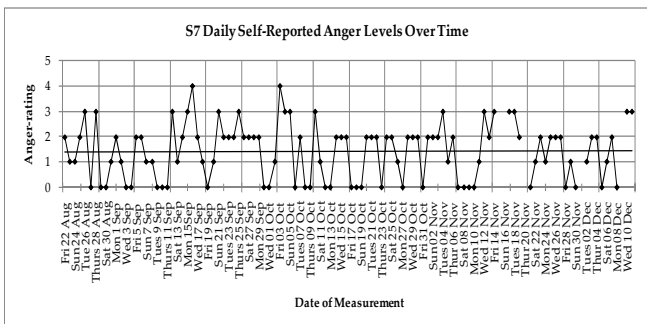
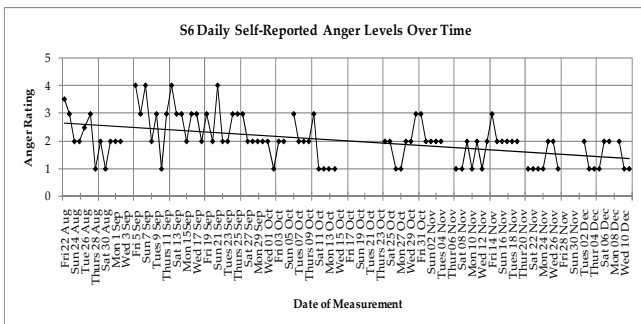
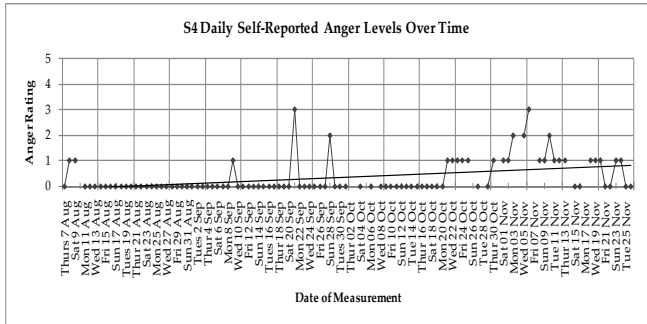
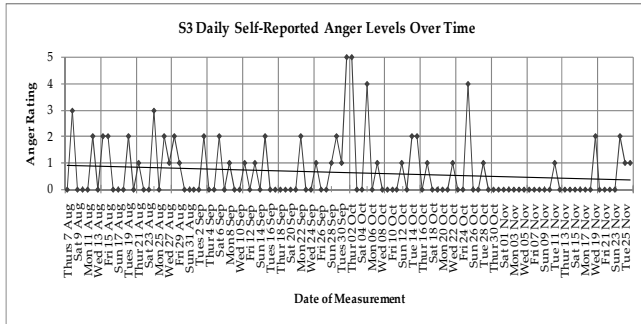
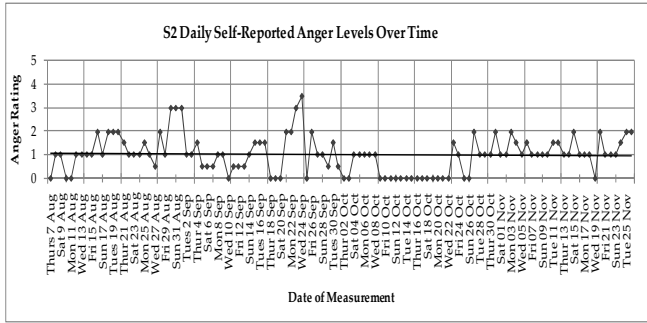
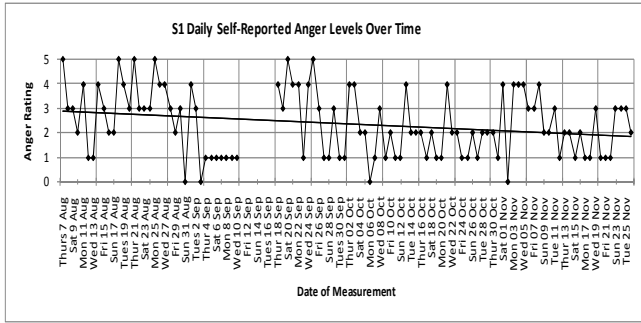
5 Appendix Two – Diary Card Graphs

Fig 4.1: Daily Self-Reported Anxiety Levels Over Time



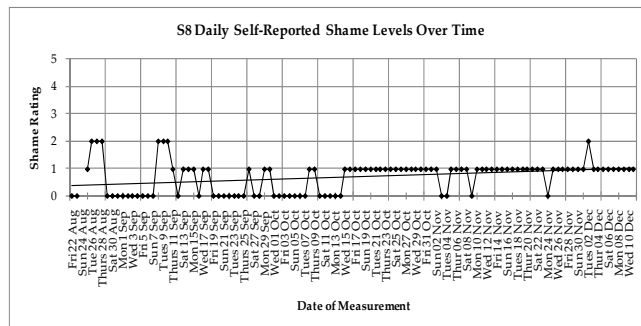
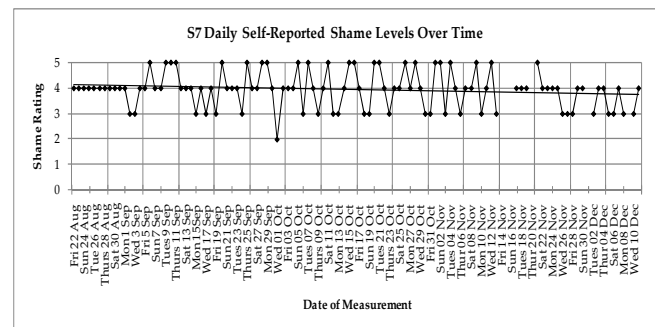
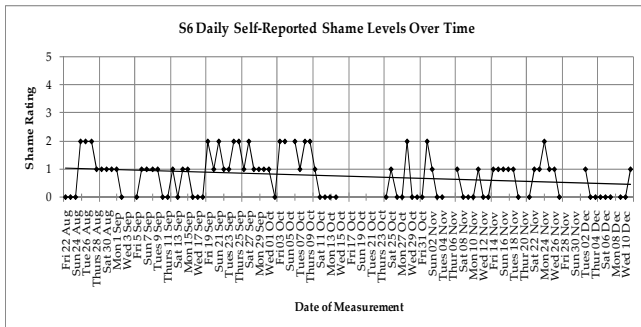
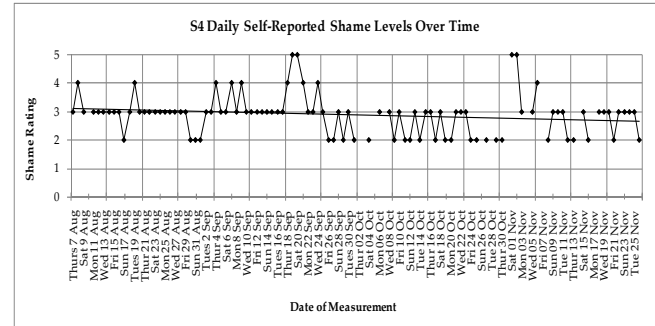
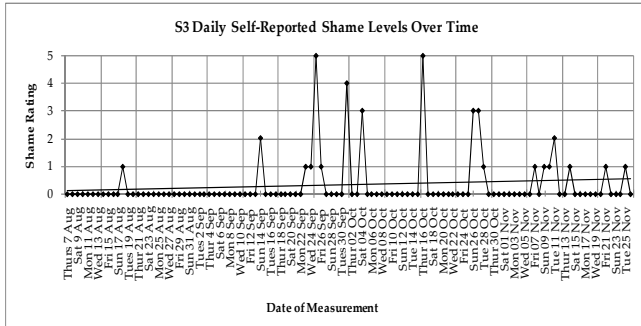
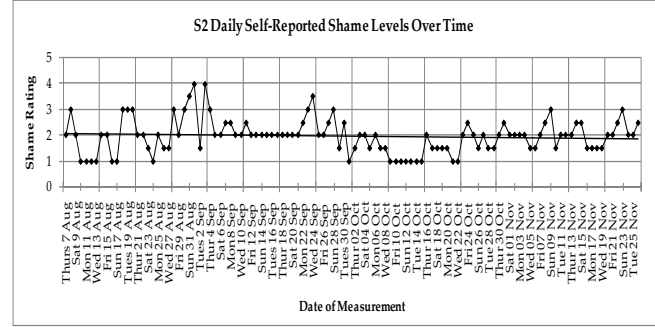
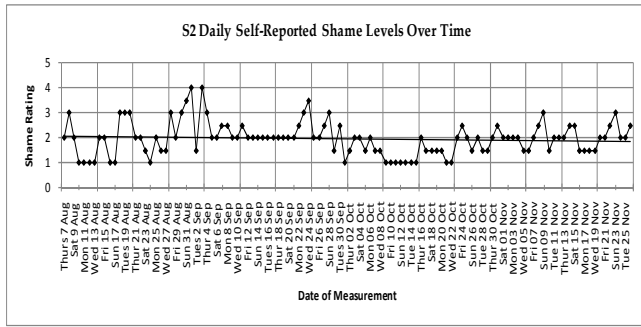
Daily self-reported anxiety ratings and linear trendlines for each of the seven participants who completed diary cards on a regular basis.

Fig 4.2: Daily Self-Reported Anger Ratings Over Time



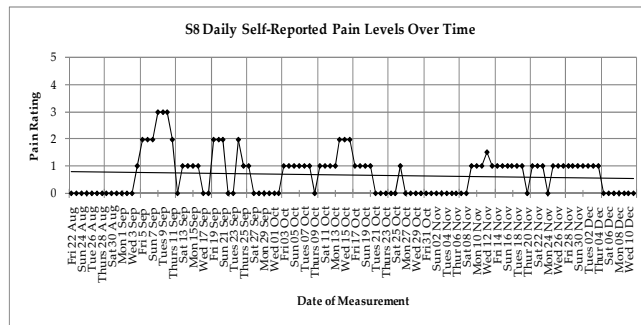
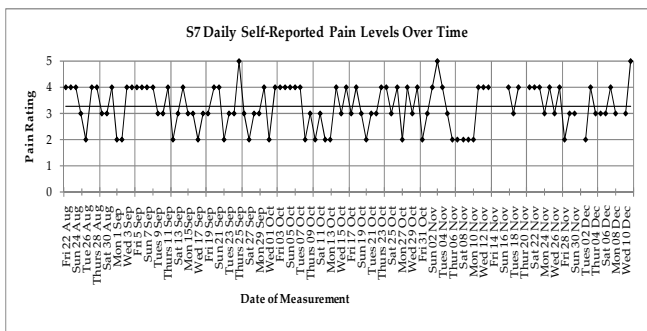
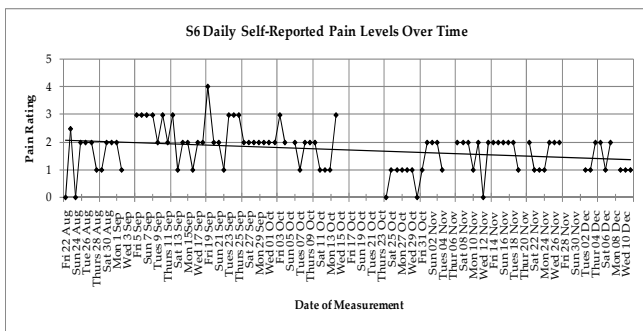
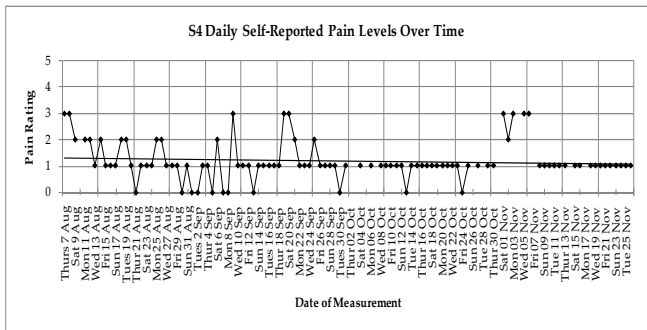
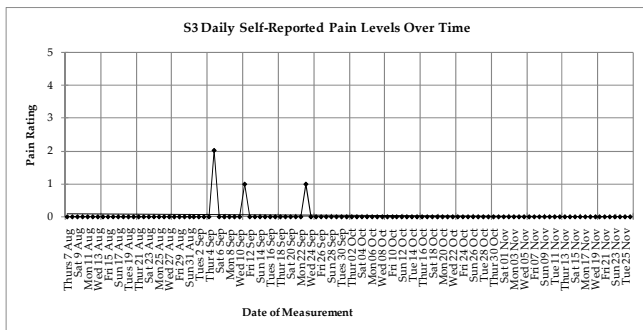
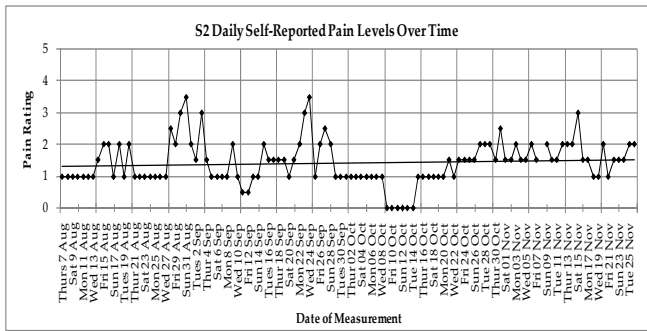
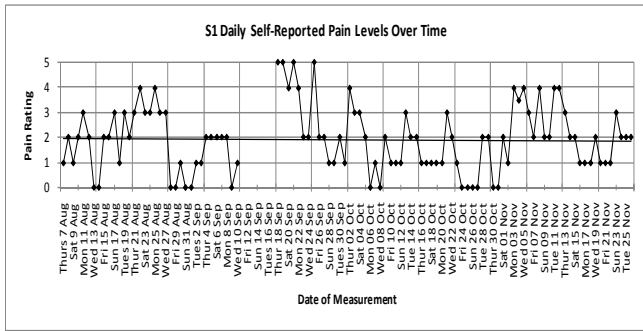
Daily self-reported anger ratings and linear trendlines for each of the seven participants who completed diary cards on a regular basis.

Fig 4.3: Daily Self-Reported Shame Ratings Over Time



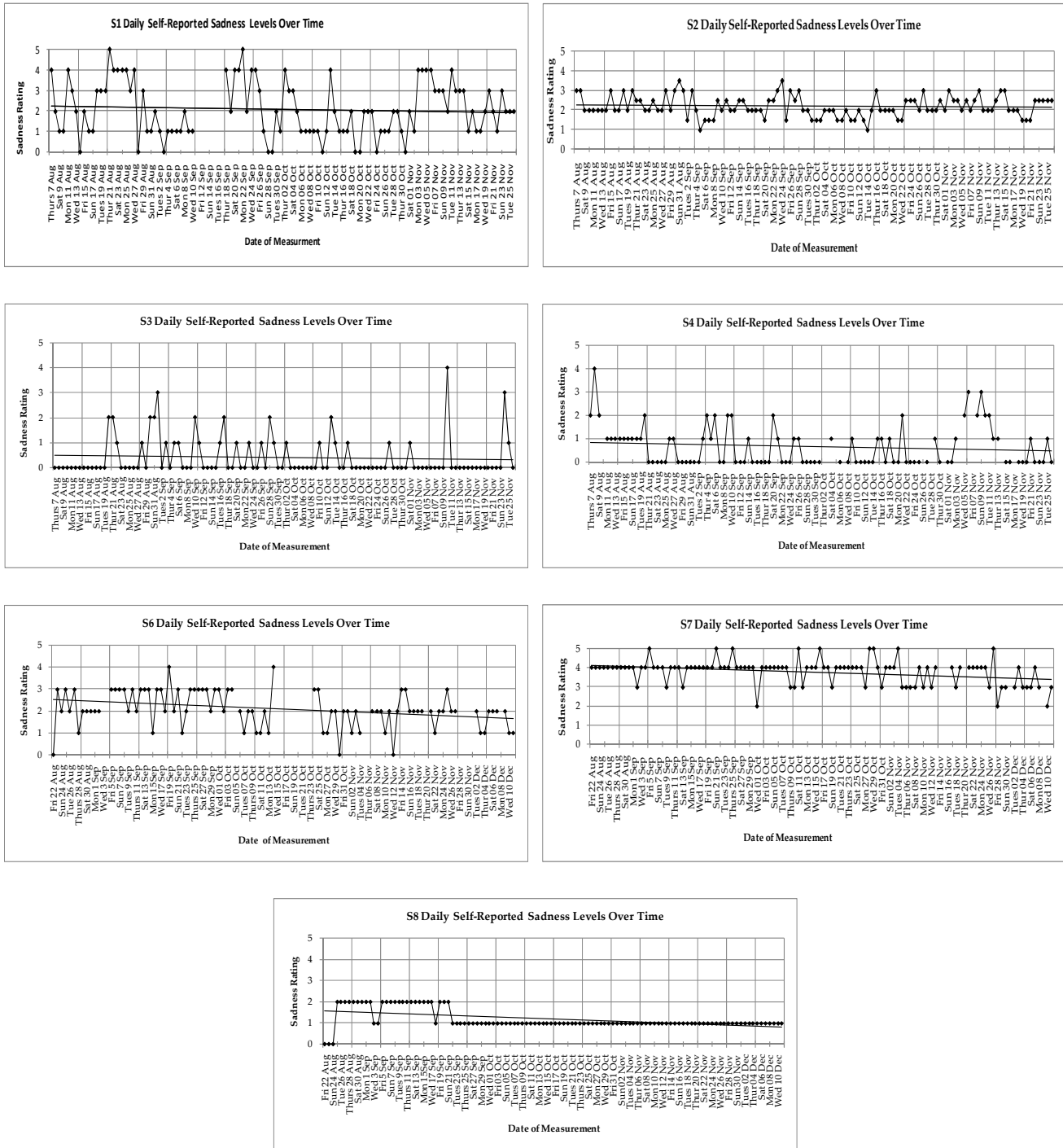
Daily self-reported shame ratings and linear trendlines for each of the seven participants who completed diary cards on a regular basis.

Fig 4.4: Daily Self-Reported Pain Ratings Over Time



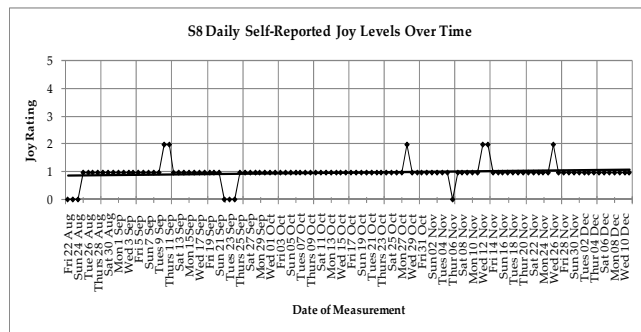
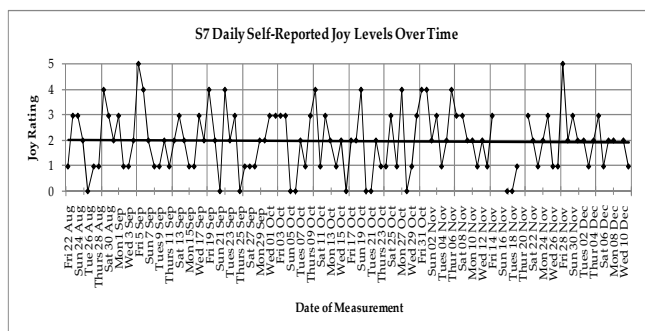
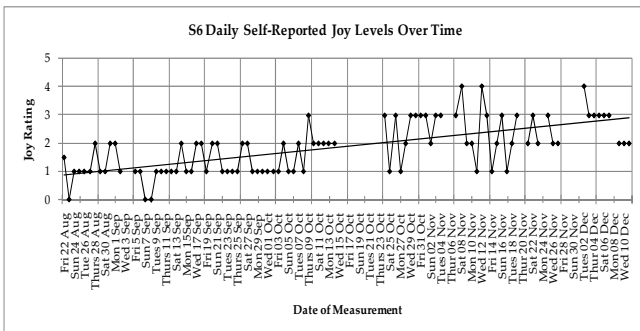
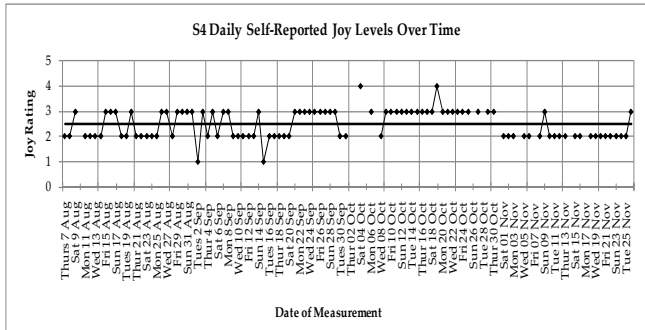
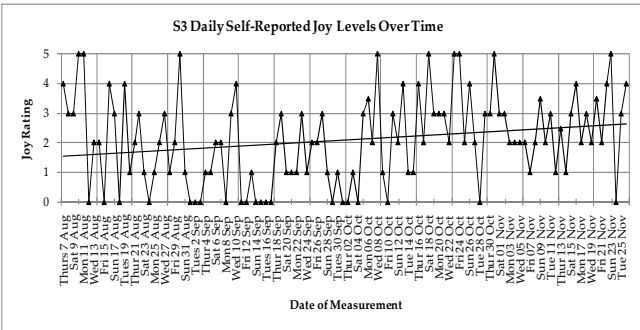
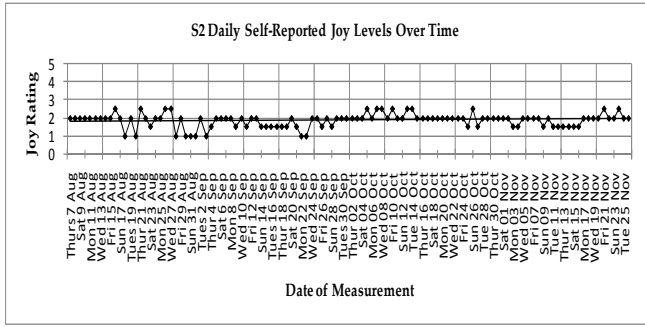
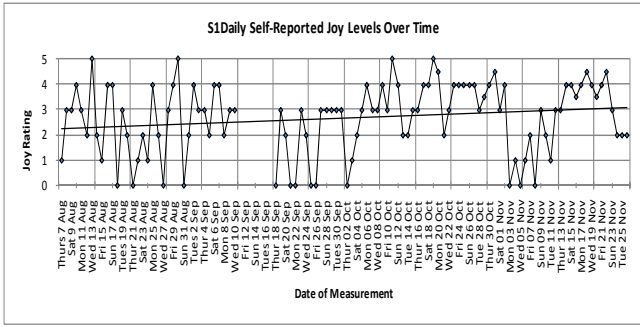
Daily self-reported pain ratings and linear trendlines for each of the seven participants who completed diary cards on a regular basis. Pain was defined as a sense of general distress.

Fig 4.5: Daily Self-Reported Sadness Ratings Over Time



Daily self-reported sadness ratings and linear trendlines for each of the seven participants who completed diary cards on a regular basis.

Fig 4.6: Daily Self-Reported Joy Ratings Over Time



Daily self-reported joy ratings and linear trendlines for each of the seven participants who completed diary cards on a regular basis. Joy was defined as any positive emotion such as pleasure, enjoyment or happiness.

6 Appendix Three – DSM-IV-TR Diagnostic Criteria

6.1 Anxiety Disorders

Diagnostic Criteria for a Panic Attack

Note: A Panic Attack is not a codable disorder. Code the specific disorder in which the Panic Attack occurs (e.g. 300.21 Panic Disorder with Agoraphobia).

A discrete period of intense fear or discomfort, in which four (or more) or the following symptoms developed abruptly and reached a peak within 10 minutes:

- (1) palpitations, pounding heart, or accelerated heart rate
- (2) sweating
- (3) trembling or shaking
- (4) sensations of shortness of breath or smothering
- (5) feeling of choking
- (6) chest pain or discomfort
- (7) nausea or abdominal distress
- (8) feeling dizzy, unsteady, lightheaded or faint
- (9) derealization (feelings of unreality) or depersonalization (being detached from oneself)
- (10) fear of losing control or going crazy
- (11) fear of dying
- (12) paresthesias (numbing or tingling sensations)
- (13) chills or hot flushes

(From: American Psychiatric Association, 2000, 432)

Diagnostic Criteria for Agoraphobia

Note: Agoraphobia is not a codable disorder. Code the specific disorder in which the Agoraphobia occurs (e.g. 300.21 Panic Disorder With Agoraphobia or 300.22 Agoraphobia Without History of Panic Disorder).

- A. Anxiety about being in places or situations from which escape might be difficult (or embarrassing) or in which help might not be available in the event of having an unexpected or situationally predisposed Panic Attack or panic-like symptoms. Agoraphobic fears typically involve characteristic clusters of situations that include

being outside the home alone; being in a crowd or standing in a line; being on a bridge; and travelling in a bus, train or automobile.

Note: Consider the diagnosis of Specific Phobia if the avoidance is limited to one or only a few specific situations, or Social Phobia if the avoidance is limited to social situations.

- B. The situations are avoided (e.g. travel is restricted) or else are endured with marked distress or with anxiety about having a Panic Attack or panic-like symptoms, or require the presence of a companion.
- C. The anxiety or phobic avoidance is not better accounted for by another mental disorder such as Social Phobia (e.g. avoidance limited to social situations because of fear of embarrassment), Specific Phobia (e.g. avoidance limited to a single situation like elevators), Obsessive-Compulsive Disorder (E.g. avoidance of dirt in someone with an obsession about contamination), Posttraumatic Stress Disorder (e.g., avoidance of stimuli associated with a severe stressor), or Separation Anxiety Disorder (e.g., avoidance of leaving home or relatives).

(From: American Psychiatric Association, 2000, 433)

Diagnostic Criteria for Panic Disorder Without Agoraphobia

- A. Both (1) and (2):
 - (1) recurrent unexpected Panic Attacks
 - (2) at least one of the attacks has been followed by 1 month (or more) of one (or more) of the following:
 - (a) persistent concern about having additional attacks
 - (b) worry about the implications of the attack or its consequences (e.g. losing control, having a heart attack, “going crazy”)
 - (c) a significant change in behaviour related to the attacks
- B. Absence of Agoraphobia
- C. The Panic Attacks are not due to the direct physiological effects of a substance (e.g. a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism)
- D. The Panic Attacks are not better accounted for by another mental disorder such as Social Phobia (e.g., occurring on exposure to feared social situations), Specific Phobia (e.g., on exposure to a specific phobic situation), Obsessive-Compulsive Disorder (e.g., on exposure to dirt in someone with an obsession about contamination), Posttraumatic Stress Disorder (e.g., in response to stimuli associated with a severe stressor), or Separation Anxiety Disorder (e.g., in response to being away from home or close relatives).

(From: American Psychiatric Association, 2000, 440)

Diagnostic Criteria for Panic Disorder With Agoraphobia

- A. Both (1) and (2):
 - (1) recurrent unexpected Panic Attacks
 - (2) at least one of the attacks has been followed by 1 month (or more) of one (or more) of the following:
 - (a) persistent concern about having additional attacks
 - (b) worry about the implications of the attack or its consequences (e.g. losing control, having a heart attack, “going crazy”)
 - (c) a significant change in behaviour related to the attacks
- B. The presence of Agoraphobia
- C. The Panic Attacks are not due to the direct physiological effects of a substance (e.g. a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism)
- D. The Panic Attacks are not better accounted for by another mental disorder such as Social Phobia (e.g., occurring on exposure to feared social situations), Specific Phobia (e.g., on exposure to a specific phobic situation), Obsessive-Compulsive Disorder (e.g., on exposure to dirt in someone with an obsession about contamination), Posttraumatic Stress Disorder (e.g., in response to stimuli associated with a severe stressor), or Separation Anxiety Disorder (e.g., in response to being away from home or close relatives).

(From: American Psychiatric Association, 2000, 441)

Diagnostic Criteria for Agoraphobia Without History of Panic Disorder

- A. The presence of Agoraphobia related to fear of developing panic-like symptoms (e.g. dizziness or diarrhea).
- B. Criteria have never been met for Panic Disorder.
- C. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.
- D. If an associated general medical condition is present, the fear described in Criterion A is clearly in excess of that usually associated with the condition.

(From: American Psychiatric Association, 2000, 443)

Diagnostic criteria for Specific Phobia

- A. Marked and persistent fear that is excessive or unreasonable, cued by the presence or anticipation of a specific object or situation (e.g., flying, heights, animals, receiving an injection, seeing blood).
- B. Exposure to the phobic stimulus almost invariably provokes immediate anxiety response, which may take the form of a situationally bound or situationally predisposed Panic Attack. **Note:** In children, the anxiety may be expressed by crying, tantrums, freezing, or clinging.
- C. The person recognizes that the fear is excessive or unreasonable. **Note:** In children, this feature may be absent.
- D. The phobic situation(s) is avoided or else is endured with intense anxiety or distress.
- E. The avoidance, anxious anticipation or distress in the feared situation(s) interferes significantly with the person's normal routine, occupational (or academic) functioning, or social activities or relationships, or there is marked distress about having the phobia.
- F. In individuals under age 18 years, the duration is at least 6 months.
- G. The anxiety, Panic Attacks, or phobic avoidance is associated with the specific object or situation are not better accounted for by another mental disorder, such as Obsessive Compulsive Disorder (e.g., fear of dirt in someone with an obsession about contamination), Posttraumatic Stress Disorder (e.g., avoidance of stimuli associated with a severe stressor), Separation Anxiety Disorder (eg., avoidance of school), Social Phobia (e.g. avoidance of social situations because of fear of embarrassment), Panic Disorder With Agoraphobia, or Agoraphobia Without History of Panic Disorder.

Specify type:

Animal Type

Natural Environment Type (e.g., heights, storms, water)

Blood-Injection-Injury Type

Situational Type (e.g., airplanes, elevators, enclosed places)

Other Type (e.g., fear of choking, vomiting or contracting an illness; in children, fear of loud sounds or costumed characters)

(From: American Psychiatric Association, 2000, 449-450)

Diagnostic criteria for Social Phobia (Social Anxiety Disorder)

- A. A marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others. The individual fears that he or she will act in a way (or show anxiety symptoms) that will be humiliating or embarrassing. **Note:** In children, there must be evidence of capacity for age-appropriate social relationships with familiar people and the anxiety must occur in peer settings, not just in interactions with adults.
- B. Exposure to the feared social situation almost invariably provokes anxiety, which may take the form of a situationally bound or situationally predisposed Panic Attack. **Note:** In children, the anxiety may be expressed by crying, tantrums, freezing, or shrinking from social situations with unfamiliar people.
- C. The person recognizes that the fear is excessive or unreasonable. **Note:** In children, this feature may be absent.
- D. The feared social or performance situations are avoided or else are endured with intense anxiety or distress.
- E. The avoidance, anxious anticipation, or distress in the feared social or performance situation(s) interferes significantly with the person's normal routine, occupational (academic) functioning, or social activities or relationships, or there is marked distress about having a phobia.
- F. In individuals under age 18 years, the duration is at least 6 months.
- G. The fear or avoidance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition and is not better accounted for by another mental disorder (e.g., Panic Disorder With or Without Agoraphobia, Separation Anxiety Disorder, Body Dysmorphic Disorder, a Pervasive Developmental Disorder, or Schizoid Personality Disorder).
- H. If a general medical condition or another mental disorder is present, the fear in Criterion A is unrelated to it, e.g., the fear is not of Stuttering, trembling in Parkinson's disease, or exhibiting abnormal eating behaviour in Anorexia Nervosa or Bulimia Nervosa.

Specify if:

Generalized: if the fears include most social situations (also consider the additional diagnosis of Avoidant Personality Disorder).

(From: American Psychiatric Association, 2000, 456).

Diagnostic criteria for Obsessive-Compulsive Disorder

A. Either obsessions or compulsions:

Obsessions as defined by (1), (2), (3), and (4):

- (1) recurrent and persistent thoughts, impulses, or images that are experienced, at some time during the disturbance, as intrusive and inappropriate and that cause marked anxiety or distress
- (2) the thoughts, impulses or images are not simply excessive worries about real life problems
- (3) the person attempts to ignore or suppress such thoughts, impulses or images, or to neutralize them with some other thought or action
- (4) the person recognizes that the obsessional thoughts, impulses or images are a product of his or her own mind (not imposed from without as in thought insertion)

Compulsions as defined by (1) and (2):

- (1) repetitive behaviours (e.g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the person feels driven to perform in response to an obsession, or according to rules that must be applied rigidly
 - (2) the behaviours or mental acts are aimed at prevention or reducing distress or preventing some dreaded event or situation; however, these behaviours or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent or are clearly excessive
- B. At some point during the course of the disorder, the person has recognized that the obsessions or compulsions are excessive or unreasonable. **Note:** This does not apply to children.
- C. The obsessions or compulsions cause marked distress, are time consuming (take more than 1 hour a day), or significantly interfere with the person's normal routine, occupational (or academic) functioning, or social activities or relationships.
- D. If another Axis I disorder is present, the content of the obsessions or compulsions is not restricted to it (e.g., preoccupation with food in the presence of an Eating Disorder; hair pulling in the presence of Trichotillomania; concern with appearance in the presence of Body Dysmorphic Disorder; preoccupation with drugs in the presence of a Substance Use Disorder; preoccupation with having a serious illness in the presence of Hypochondriasis; preoccupation with sexual urges or fantasies in the presence of Paraphilia; or guilty ruminations in the presence of Major Depressive Disorder).
- E. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Specify if:

With Poor Insight: if, for most of the time during the current episode, the person does not recognize that the obsessions and compulsions are excessive or unreasonable

(From: American Psychiatric Association, 2000, 462-463)

Diagnostic Criteria for Posttraumatic Stress Disorder

- A. The person has been exposed to a traumatic event in which both of the following were present:
 - (1) the person experienced, witnessed or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
 - (2) the person's response involved intense fear, helplessness, or horror. **Note:** In children this may be expressed instead by disorganized or agitated behaviour
- B. The traumatic event is persistently reexperienced in one (or more) or the following ways:
 - (1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. **Note:** In young children, repetitive play may occur in which themes or aspects of trauma are expressed.
 - (2) recurrent distressing dreams of the event. **Note:** In children, there may be frightening dreams without recognizable content.
 - (3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). **Note:** In young children, trauma-specific re-enactment may occur.
 - (4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
 - (5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
- C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before trauma), as indicated by three or more of the following:
 - (1) efforts to avoid thoughts, feelings or conversations associated with the trauma
 - (2) efforts to avoid activities, places, or people that arouse recollections of the trauma
 - (3) inability to recall an important aspect of the trauma
 - (4) markedly or diminished interest or participation in significant activities
 - (5) feeling of detachment or estrangement from others
 - (6) restricted range of affect (e.g., unable to have loving feelings)

- (7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)
- D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:
 - (1) difficulty falling or staying asleep
 - (2) irritability or outbursts of anger
 - (3) difficulty concentrating
 - (4) hypervigilance
 - (5) exaggerated startle response
- E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.
- F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:

Acute: if duration of symptoms is less than 3 months

Chronic: if duration of symptoms is 3 months or more

Specify if:

With Delayed Onset: if onset of symptoms is at least 6 months after the stressor

(From: American Psychiatric Association, 2000, 467-468).

Diagnostic criteria for Acute Stress Disorder

- A. The person has been exposed to a traumatic event in which both of the following were present:
 - (1) the person experienced, witnessed or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
 - (2) the person's response involved intense fear, helplessness, or horror. **Note:** In children this may be expressed instead by disorganized or agitated behaviour
- B. Either while experiencing or after experiencing the distressing event, the individual has three (or more) of the following dissociative symptoms:
 - (1) a subjective sense of numbing, detachment, or absence of emotional responsiveness
 - (2) a reduction in awareness of his or her surroundings (e.g., "being in a daze")
 - (3) derealization
 - (4) depersonalization
 - (5) dissociative amnesia (i.e., inability to recall an important aspect of the trauma)
- C. The traumatic event is persistently reexperienced in one of the following ways: thoughts, dreams, illusions, flashback episodes, or a sense of reliving the experience; or distress on exposure to reminders of the traumatic event.
- D. Marked avoidance of stimuli that arouse recollections of the trauma (e.g., thoughts, feelings, conversations, activities, places, people).

- E. Marked symptoms of anxiety or increased arousal (e.g., difficulty sleeping, irritability, poor concentration, hypervigilance, exaggerated startle response, motor restlessness).
- F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or impairs the individual's ability to pursue some necessary task, such as obtaining necessary assistance or mobilizing personal resources by telling family members about the traumatic experience.
- G. The disturbance lasts for a minimum of 2 days and a maximum of 4 weeks and occurs within 4 weeks of the traumatic event.
- H. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition, is not better accounted for by Brief Psychotic Disorder, and is not merely an exacerbation of a preexisting Axis I or Axis II disorder.

(From: American Psychiatric Association, 2000, 471-472).

Diagnostic criteria for Generalized Anxiety Disorder

- A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance).
- B. The person finds it difficult to control the worry.
- C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past six months). **Note:** Only one item is required in children.
 - (1) Restlessness or feeling keyed up or on edge
 - (2) being easily fatigued
 - (3) difficulty concentrating or mind going blank
 - (4) irritability
 - (5) muscle tension
 - (6) sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep)
- D. The focus of the anxiety and worry is not contained to features of an Axis I disorders, e.g., the anxiety or worry is not about having a Panic Attack (as in Panic Disorder), being embarrassed in public (as in Social Phobia), being contaminated (as in Obsessive-Compulsive Disorder), being away from home or close relatives (as in Separation Anxiety Disorder), gaining weight (as in Anorexia Nervosa), having multiple physical complaints (as in Somatization Disorder), or having a serious illness (as in Hypochondriasis), and the anxiety and worry do not occur exclusively during Posttraumatic Stress Disorder.
- E. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning.

- F. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism) and does not occur exclusively during a Mood Disorder, a Psychotic Disorder, or a Pervasive Developmental Disorder.

(From: American Psychiatric Association, 2000, 476).

Diagnostic criteria for Anxiety Disorder Not Otherwise Specified

This category includes disorders with prominent anxiety or phobic avoidance that do not meet criteria for any specific Anxiety Disorder, Adjustment Disorder With Anxiety, or Adjustment Disorder With Mixed Anxiety and Depressed Mood. Examples include

1. Mixed anxiety-depressive disorder: clinically significant symptoms of anxiety and depression, but the criteria are not met for either a specific Mood Disorder or a specific Anxiety Disorder.
2. Clinically significant social phobic symptoms that are related to the social impact of having a general medical condition or mental disorder (e.g., Parkinson's disease, dermatological conditions, Stuttering, Anorexia Nervosa, Body Dysmorphic Disorder)
3. Situations in which the disturbance is severe enough to warrant a diagnosis of an Anxiety Disorder but the individual fails to report enough symptoms for the full criteria for any specific Anxiety Disorder to have been met; for example, an individual who reports all of the features of Panic Disorder Without Agoraphobia except that the Panic Attacks are all limited-symptom attacks
4. Situations in which the clinician has concluded that an Anxiety Disorder is present but is unable to determine whether it is primary, due to a general medical condition, or substance-induced

(From: American Psychiatric Association, 2000, 484).

6.2 Somatoform Disorders

Diagnostic criteria for Hypochondriasis

- A. Preoccupation with fears of having, or the idea that one has, a serious disease based on the person's misinterpretation of bodily symptoms.
- B. The preoccupation persists despite appropriate medical evaluation and reassurance.
- C. The belief in Criterion A is not of delusional intensity (as in Delusional Disorder, Somatic Type) and is not restricted to a circumscribed concern about appearance (as in Body Dysmorphic Disorder).

- D. The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- E. The duration of the disturbance is at least 6 months.
- F. The preoccupation is not better accounted for by Generalized Anxiety Disorder, Obsessive-Compulsive Disorder, Panic Disorder, a Major Depressive Episode, Separation Anxiety, or another Somatoform Disorder.

Specify if:

With Poor Insight: if, for most of the time during the current episode, the person does not recognize that the concern about having a serious illness is excessive or unreasonable

(From: American Psychiatric Association, 2000, 507).

6.3 Mood Disorders

Note: Diagnostic criteria for all of the Mood Episodes are not included here. Diagnostic criteria for Mixed Episode and Hypomanic Episode can be found on pages 365 and 368 of the DSM-IV-TR (American Psychiatric Association, 2000). Diagnostic criteria for Bipolar I Disorder, Single Manic Episode and Bipolar I Disorder, Most Recent Episode Hypomanic are not included here. They can be found on page 388 of the DSM-IV-TR (American Psychiatric Association, 2000).

Diagnostic criteria for Major Depressive Episode

- A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.
Note: Do not include symptoms that are clearly due to a general medical condition, or mood-incongruent delusions or hallucinations.
 - (1) depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). **Note:** In children and adolescents, can be irritable mood.
 - (2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others)
 - (3) significant weight loss when not dieting or weight gain (a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day.
Note: in children, consider failure to make expected weight gains.
 - (4) insomnia or hypersomnia nearly every day

- (5) psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)
 - (6) fatigue or loss of energy nearly every day
 - (7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)
 - (8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or observed by others)
 - (9) recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide
- B. The symptoms do not meet criteria for a Mixed Episode.
 - C. The symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning.
 - D. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism)
 - E. The symptoms are not better accounted for by Bereavement, i.e., after the loss of a loved one, the symptoms persist for longer than 2 months or are characterised by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation.

(From: American Psychiatric Association, 2000, 356).

Diagnostic criteria for Manic Episode

- A. A distinct period of abnormally and persistently elevated, expansive or irritable mood, lasting at least 1 week (or any duration if hospitalization is necessary).
- B. During the period of mood disturbance, three (or more) of the following symptoms have persisted (four if the mood is only irritable) and have been present to a significant degree:
 - (1) inflated self-esteem or grandiosity
 - (2) decreased need for sleep (e.g., feels rested after only 3 hours of sleep)
 - (3) more talkative than usual or pressure to keep talking
 - (4) flight of ideas or subjective experience that thoughts are racing
 - (5) distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli)
 - (6) increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation
 - (7) excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments)

- C. The symptoms do not meet the criteria for Mixed Episode.
- D. The mood disturbance is sufficiently severe to cause marked impairment in occupational functioning or in usual social activities or relationships to others, or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.
- E. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication, or other treatment) or a general medical condition (e.g., hyperthyroidism).

Note: Manic-like episodes that are clearly caused by somatic antidepressant treatment (e.g., medication, electro-convulsive therapy, light therapy) should not count toward a diagnosis of Bipolar I Disorder.

(From: American Psychiatric Association, 2000, 362).

Diagnostic criteria for Major Depressive Disorder, Single Episode

- A. Presence of a single Major Depressive Episode
- B. The Major Depressive Episode is not better accounted for by Schizoaffective Disorder and is not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder Not Otherwise Specified.
- C. There has never been a Manic Episode, a Mixed Episode or a Hypomanic Episode.
Note: This exclusion does not apply if all of the manic-like, mixed-like or hypomanic-like episodes are substance or treatment induced or are due to the direct physiological effects of a general medical condition.

(From: American Psychiatric Association, 2000, 375).

Diagnostic criteria for Major Depressive Disorder, Recurrent

- A. Presence of two or more Major Depressive Episodes
Note: To be considered separate episodes, there must be an interval of at least 2 consecutive months in which criteria are not met for Major Depressive Episode.
- B. The Major Depressive Episode is not better accounted for by Schizoaffective Disorder and is not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder Not Otherwise Specified.
- C. There has never been a Manic Episode, a Mixed Episode or a Hypomanic Episode.
Note: This exclusion does not apply if all of the manic-like, mixed-like or hypomanic-like episodes are substance or treatment induced or are due to the direct physiological effects of a general medical condition.

(From: American Psychiatric Association, 2000, 376).

Diagnostic criteria for Dysthymic Disorder

- A. Depressed mood for most of the day, for more days than not, as indicated by subjective account or observation by others, for at least 2 years. **Note:** In children and adolescents, mood can be irritable and duration must be at least 1 year.
- B. Presence, while depressed, of two (or more) of the following:
 - (1) poor appetite or overeating
 - (2) insomnia or hypersomnia
 - (3) low energy or fatigue
 - (4) low self-esteem
 - (5) poor concentration or difficulty making decisions
 - (6) feelings of hopelessness
- C. During the 2-year period (1 year for children and adolescents) of the disturbance, the person has never been without the symptoms of Criteria A and B for more than 2 months at a time.
- D. No Major Depressive Episode has been present during the first 2 years of the disturbance (1 year for children and adolescents); i.e., the disturbance is not better accounted for by Major Depressive Disorder or Major Depressive Disorder, In Partial Remission.
Note: There may have been a previous Major Depressive Episode provide there was full remission (no significant signs or symptoms for 2 months) before developing Dysthymic Disorder. In addition, after the initial 2 years ... of Dysthymic Disorder there may superimposed episodes of Major Depressive Disorder, in which case both diagnoses may be given when criteria are met for Major Depressive Episode.
- E. There has never been a Manic Episode, a Mixed Episode or a Hypomanic Episode and criteria have never been met for Cyclothymic Disorder.
- F. The disturbance does not occur exclusively during the course of chronic Psychotic Disorder, such as Schizophrenia or Delusional Disorder.
- G. The symptoms are not due to the direct physiological effects of a substance... or a general medical condition.
- H. The symptoms cause clinically significant distress or impairment in ... important areas of functioning.

(From; American Psychiatric Association, 2000, 380-381).

Diagnostic criteria for Bipolar I Disorder, Most Recent Episode Manic

- A. Currently (or most recently) in a Manic Episode.
- B. There has previously been at least one Major Depressive Episode, Manic Episode or Mixed Episode.
- C. The mood episodes in Criterion A and B are not better accounted for by Schizoaffective Disorder and are not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder or Psychotic Disorder Not Otherwise Specified.

(From: American Psychiatric Association, 2000, 389).

Diagnostic criteria for Bipolar II Disorder (Recurrent Major Depressive Episodes With Hypomanic Episodes)

- A. Presence (or history) of one or more Major Depressive Episodes.
- B. Presence (or history) of at least one Hypomanic Episode.
- C. There has never been a manic Episode or a Mixed Episode.
- D. The mood symptoms in criteria A and B are not better accounted for by Schizoaffective Disorder and are not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder or Psychotic Disorder Not Otherwise Specified.
- E. The symptoms cause clinically significant distress or impairment in ... important areas of functioning.

(From: American Psychiatric Association, 2000, 397).

6.4 Schizophrenia and Other Psychotic Disorders

Diagnostic criteria for Schizophrenia

- A. *Characteristic symptoms:* Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated):
 - (1) delusions
 - (2) hallucinations
 - (3) disorganized speech (e.g., frequent derailment or incoherence)
 - (4) grossly disorganized or catatonic behaviour
 - (5) negative symptoms, i.e., affective flattening, avolition

Note: Only one Criterion A symptom is required if delusions are bizarre or hallucinations consist of a voice keeping up a running commentary of the person's behaviour or thoughts, or two or more voices conversing with each other.

- B. *Social/occupational Dysfunction:* For a significant portion of time since the onset of the disturbance, one or more major areas of functioning such as work, interpersonal relations, or self-care are markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, failure to achieve expected level of interpersonal, academic or occupational achievement).
- C. *Duration:* Continuous signs of the disturbance persist for at least 6 months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet Criterion A (i.e., active-phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or two or more symptoms listed in Criterion A present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences).
- D. *Schizoaffective and Mood Disorder exclusion:* Schizoaffective Disorder and Mood Disorder With Psychotic Features have been ruled out because either (1) no Major Depressive, Manic or Mixed Episodes have occurred concurrently with the active-phase symptoms; or (2) if mood episodes have occurred during active-phase symptoms their total duration has been brief relative to the duration of the active and residual periods.
- E. *Substance/general medical condition exclusion:* The disturbance is not due to the direct physiological effects of a substance... or a general medical condition.
- F. *Relationship to Pervasive Developmental Disorder:* If there is a history of Autistic Disorder or another Pervasive Developmental Disorder, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations are also present for at least 1 month (or less if treated)

(From: American Psychiatric Association, 2000, 312).

Diagnostic criteria for Paranoid Type

A type of schizophrenia in which the following criteria must be met:

- A. Preoccupation with one or more delusions or frequent auditory hallucinations.
- B. None of the following is prominent: disorganized speech, disorganized or catatonic behaviour, or flat or inappropriate affect.
- C.

(From: American Psychiatric Association, 2000,314).

Diagnostic criteria for Schizoaffective Disorder

- A. An uninterrupted period of illness during which, at some time, there is either a Major Depressive Disorder, a Manic Episode, or a Mixed Episode concurrent with symptoms that meet Criterion A for Schizophrenia.
Note: The Major Depressive Episode must include Criterion A1: depressed mood.
- B. During the same period of illness, there must have been delusions or hallucinations for at least 2 weeks in the absence of prominent mood symptoms.
- C. Symptoms that meet criteria for a mood episode are present for a substantial portion of the total duration of the active and residual periods of the illness.
- D. The disturbance is not due to the direct physiological effects of a substance ... or a general medical condition.

Specify type:

Bipolar Type

Depressive Type

(From: American Psychiatric Association, 2000, 323).

Diagnostic criteria for Brief Psychotic Disorder

- A. Presence of one (or more) of the following symptoms:
 - (1) Delusions
 - (2) Hallucinations
 - (3) disorganised speech (e.g., frequent derailment or incoherence)
 - (4) grossly disorganized or catatonic behaviour**Note:** Do not include a symptom if it is a culturally sanctioned response pattern.
- B. Duration of an episode of the disturbance is at least 1 day but less than 1 month, with eventual full return to premorbid level of functioning.
- C. The disturbance is not better accounted for by a Mood Disorder with Psychotic Features, Schizoaffective Disorder, or Schizophrenia and is not due to the direct physiological effects of a substance... or a general medical condition.

Specify if:

With Marked Stressor(s)

Without Marked Stressor(s)

With Postpartum Onset

(From: American Psychiatric Association, 2000, 332).

7 References

- Adalbjarnardottir, S., (1995). How schoolchildren propose to negotiate: The role of social withdrawal, social anxiety and locus of control. *Child Development*, 66/6, 1739-1751.
- Abramson, L.Y., Seligman, M.E.P., & Teasdale, J.D., (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, 87/1, 49-74.
- Addington, D., Addington, J., & Robinson, G., (1999). Attributional style and depression in schizophrenia. *The Canadian Journal of Psychiatry*, 44, 697-700.
- Aghevli, M.A., Blanchard, J.J., & Horan, W.P., (2003). The expression and experience of emotion in schizophrenia: A study of social interactions. *Psychiatry Research*, 119, 261-270.
- Alkire, A.A., Brunse, A.J., & Houlihan, J.P., (1974). Avoidance of nuclear family relationships in schizophrenia. *Journal of Clinical Psychology*, 30/3, 398-400.
- Altshuler, L.L., Bookheimer, S.Y., Townsend, J., Proenzer, M.A., Eisenberger, N., Sabb, F., Mintz, J., & Cohen, M.S., (2005). Blunted activation in orbitofrontal cortex during mania: A functional Magnetic Resonance Imaging study. *Biological Psychiatry*, 58, 763-769.
- American Psychiatric Association, (2000). *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision. Washington DC, American Psychiatric Association.
- Anderson, R.A., & Rees, C.S., (2007). Group versus individual cognitive-behavioural

treatment for obsessive-compulsive disorder: A controlled trial. *Behaviour Research & Therapy*, 45, 123-137.

Andrew, D.H., & Durin, P.L., (2007). The relationship between self-reported health and mental health problems among older adults in New Zealand: Experiential avoidance as a moderator. *Aging & Mental Health*, 11/5, 596-603.

Andrews, G., (1996) Comorbidity in neurotic disorders: The similarities are more important than the differences. In Rapee, R.M., (Ed., 3-20) *Current Controversies in the Anxiety Disorders*. New York: The Guilford Press.

Antony, M.M., & Barlow, D.H., (1996) Emotion theory as a framework for explaining panic attacks and panic disorder. In Rapee, R.M., (Ed., 55-72) *Current Controversies in the Anxiety Disorders*. New York: The Guilford Press.

Arcediano, F., Matute, H., & Miller, R.R., (1997). Blocking of Pavlovian conditioning in humans. *Learning & Motivation*, 28/2, 188-199.

Arch, J., & Craske, M.G., (2007). Implications of naturalistic use of pharmacotherapy in CBT treatment for panic disorder. *Behaviour Research & Therapy*, 45, 1435-1447.

Argyle, N., (1990). Panic attacks in chronic schizophrenia. *British Journal of Psychiatry*, 157, 430-433.

Arkin, R.M., Appelman, A.J., & Burger, J.M., (1980). Social anxiety, self-presentation, and the self-serving bias in causal attribution. *Journal of Personality & Social Psychology*, 38/1, 23-35.

Armfield, J.M., (2008). An experimental study of the role of vulnerability related perceptions

in spider fear: Comparing imaginal and in vivo encounter. *Anxiety Disorders*, 22, 222-232.

Asakura, S., Tajima, O., & Koyama, T., (2007). Fluvoxamine treatment of generalized social anxiety disorder in Japan: A randomized double-blind placebo-controlled study. *International Journal of Neuropsychopharmacology*, 10, 263-274.

Baer, R.A., (2007). Mindfulness, assessment, and transdiagnostic processes. *Psychological Inquiry*, 18/4, 238-271.

Baker, C.A., & Morrison, A.P., (1998). Cognitive processes in auditory hallucinations: Attributional biases and metacognition. *Psychological Medicine*, 28, 1199-1208.

Baker, R., Holloway, J., Thomas, P.W., Thomas, S., & Owens, M., (2004). Emotional processing and panic. *Behaviour Research & Therapy*, 42, 1271–1287.

Bandura, A., (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84/2, 191-215.

Bandura, A., & Adams, N.E., (1977). Analysis of self-efficacy theory of behavioral change. *Cognitive Therapy & Research*, 1/4, 287-310.

Bandura, A., Adams, N.E., & Beyer, J., (1977). Cognitive processes mediating behavioral change. *Journal of Personality & Social Psychology*, 35/3, 125-139.

Banks, S.M., & Kerns, R.D., (1996). Explaining high rates of depression in chronic pain: A diathesis-stress framework. *Psychological Bulletin*, 119/1, 95-110.

Barlow, D.H. (2000). Unravelling the mysteries of anxiety and its disorders from the perspective of emotion theory. *American Psychologist*, 55/11, 1247-1263.

- Barlow, D.H., Allen, L.B., & Choate, M.L., (2004). Toward a unified treatment for emotional disorders. *Behavior Therapy*, 35, 205-230.
- Barlow, D.H., Craske, M.G., Cerny, J.A., & Klosko, J.S., (1989). Behavioral treatment of panic disorder. *Behavior Therapy*, 20, 261-282.
- Barlow, D.H., & Hersen, M., (1984). *Single Case Experimental Designs: Strategies for Studying Behaviour Change*, second edition, Oxford: Pergamon.
- Baso, M.R., & Bornstein, R.A., (1999) Relative memory deficits in recurrent versus first-episode major depression on a word-list learning task. *Neuropsychology* 13/4, 557-563.
- Beattie, N., Shannon, C., Kavanagh, M., & Mulholland, C., (2009). Predictors of PTSD symptoms in response to psychosis and psychiatric admission. *The Journal of Nervous & Mental Disease*, 197/1, 56-60.
- Beck, A.T., Emery, G., & Greenberg, R., (1985). *Anxiety Disorders and Phobias: A Cognitive Perspective*. United States of America: Basic Books.
- Beck, J.S., (1995). *Cognitive Therapy: Basics and Beyond*. New York: The Guilford Press.
- Beck, J.G., Coffey, S.F., Foy, D.W., Keane, T.M., & Blanchard, E.B., (2009). Group cognitive behavior therapy for chronic posttraumatic stress disorder: An initial randomized pilot study. *Behavior Therapy*, 40, 82-92.
- Beiderman, J., Rosenbaum, J.F., Bolduc-Murphy, E.A., Faraone, S.V., Chaloff, J., Hirshfeld, D.R., & Kagan, J., (1993). A 3-year follow-up of children with and without behavioral inhibition. *Journal of the American Academy of Child & Adolescent Psychiatry*, 32/4, 814-821.

- Bentall, R.P., & Kaney, S., (1989). Content specific information processing and persecutory delusions: An investigation using the emotional Stroop test. *British Journal of Medical Psychology*, 62 355-364.
- Bentall, R.P., (1990). The illusion of reality: A review and integration of psychological research on hallucinations. *Psychological Bulletin*, 107/1, 82-95.
- Bentall, R.P., (2004). Abandoning the concept of schizophrenia: The cognitive psychology of hallucinations and delusions. In Read, J., Mosher, L.R., & Bentall, R.P., (Eds. 195-208) *Models of Madness: Psychological, Social and Biological Approaches to Schizophrenia*. New York: Routledge.
- Bentall, R.P., Rouse, G., Kinderman, P., Blackwood, N., Howard, R., Moore, R., Cummins, S., & Corcoran, R., (2008). Paranoid delusions in schizophrenia spectrum disorders and depression: The transdiagnostic role of expectations of negative events and negative self-esteem. *The Journal of Nervous & Mental Disease*, 196/5, 375-383.
- Berking, M., Wupperman, P., Reichardt, A., Pejic, T., Dippel, A., & Znoj, H., (2008). Emotion-regulation skills as a treatment target in psychotherapy. *Behaviour Research & Therapy*, 46, 1230-1237.
- Berry, M., & Letendre, J., (2004). Lambs and lions: The role of psychoeducational groups in enhancing relationship skills and social networks. *Groupwork*, 14/1, 30-45.
- Bettazoni, M., Ziprusky, R.B., Friedland, J., & Devins, G.M., (2008). Illness intrusiveness and subjective well-being in schizophrenia. *The Journal of Nervous & Mental Disease*, 196/11, 798-805.

- Billings, D.W., Cook, R.F., Hendrickson, A., & Dove, D.C., (2008). A web-based approach to managing stress and mood disorders in the workforce. *Journal of Occupational & Environmental Medicine*, 50/8, 960-968.
- Birchwood, M., Trower, P., Brunet, K., Gilbert, P., Iqbal, Z., & Jackson, C., (2006). Social anxiety and the shame of psychosis: A study in first episode psychosis. *Behaviour Research & Therapy*, 45, 1025-1037.
- Birkett, P., Brindley, A., Norman, P., Harrison, G., & Baddeley, A., (2006). Control of attention in schizophrenia. *Journal of Psychiatric Research*, 40, 579-588.
- Biswas, A., & Chattopadhyay, P.K., (2001). Predicting psychotherapeutic outcomes in patients with generalized anxiety disorder. *Journal of Personality & Clinical Studies*, 17/1, 27-32.
- Bogels, S.M., & Mansell, W., (2004). Attention processes in the maintenance and treatment of social phobia: hypervigilance, avoidance and self-focused attention. *Clinical Psychology Review*, 24, 827-856.
- Borkovec, T.D., Alcaine, O., & Behar, E., (2004). Avoidance theory of worry and generalised anxiety disorder. In R.G. Heimburg, C.L. Turk, & D.S. Mennin (Eds.) *Generalised Anxiety Disorder: Advances in Research and Practice* (77-108), New York: Guilford Press.
- Bradley, B.P., Mogg, K., Falla, S.J., & Hamilton, L.R., (1998). Attentional bias for threatening facial expressions in anxiety: Manipulation of stimulus duration. *Cognition & Emotion*, 12/6, 737-753.
- Braff, D.L., Grillon, C., & Geyer, M.A., (1992). Gating and habituation of the startle reflex in

schizophrenic patients. *Archives of General Psychiatry*, 49, 206-215.

Braga, R.J., Petrides, G., & Figueira, I., (2004). Anxiety disorders in schizophrenia.

Comprehensive Psychiatry, 45/6, 460-468.

Bridges, (1932). Emotional development in early infancy. *Child Development*, 3, 324-341; cited in Sroufe, L.A., (1995). *Emotional Development: The Organisation of Emotional Life in the Early Years*. United Kingdom: Cambridge University Press.

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*, 23/8, 1037-1046.

Brotman, M.A., Rich, B.A., Schmajuk, M., Reising, M., Monk, C.S., Dickstein, D.P., Mogg, K., Bradley, B.P., Pine, D.S., & Leibenluft, E., (2007). Attention bias to threat faces in children with bipolar disorder and comorbid lifetime anxiety disorders. *Biological Psychiatry*, 61, 819-821.

Brown, T.A., Antony M.M., & Barlow, D.H., (1995). Diagnostic comorbidity in panic disorder: Effect on treatment outcome and course of comorbid diagnosis following treatment. *Journal of Consulting & Clinical Psychology*, 63/3, 408-418.

Brown, T.A., & Barlow, D.H., (1992). Comorbidity among anxiety disorders: Implications for treatment and DSM-IV. *Journal of Consulting & Clinical Psychology*, 60/6, 835-844.

Brown, T.A., & Chorpita, B.F., (1996) Reply to Andrews: On the validity and comorbidity of the DSM-III-R & DSM-IV anxiety disorders. In Rapee, R.M., (Ed) *Current Controversies in the Anxiety Disorders* (48-52). New York: The Guilford Press.

- Bryant, R.A., & Friedman, M., (2001). Medication and non-medication treatments of post-traumatic stress disorder. *Current Opinion in Psychiatry*, 14/2, 119-123.
- Bryant, R.A., Moulds, M.L., Guthrie, R.M., Dang, S.T., Mastrodomenico, J., Nixon, R.D.V., Felmingham, K.L., & Hopwood, S., (2008). A randomized controlled trial of exposure therapy and cognitive restructuring for posttraumatic stress disorder. *Journal of Consulting & Clinical Psychology*, 76/4, 695-703.
- Bryant, R.A., Moulds, M., & Guthrie, R.M., (2001). Cognitive strategies and the resolution of acute stress disorder. *Journal of Traumatic Stress*, 14/1, 213-219.
- Buchanan, J.A., & Houlihan, D., (2008). The use of in vivo desensitization for the treatment of a specific phobia of earthworms. *Clinical Case Studies*, 7, 12-24.
- Bushnell, J., McLeod, D., Dowell, A., Salamond C., & Ramage, S., (2006). The treatment of common mental health problems in general practice. *Family Practice*, 23, 53-59.
- Butler, G., (1993). Predicting outcome after treatment for generalised anxiety disorder. *Behaviour Research & Therapy*, 31/1, 211-213.
- Butler, A.C., Chapman, J.E., Forman, E.M., & Beck, A.T., (2006). The empirical status of cognitive-behavioral therapy: A review of meta-analyses. *Clinical Psychology Review*, 26, 17-31.
- Butler, G., Fennell, M., Robson, P., & Gelder, M., (1991). Comparison of behavior therapy and cognitive behavior therapy in the treatment of generalized anxiety disorder. *Journal of Consulting & Clinical Psychology*, 59/1, 167-175.
- Cameron, L.D., & Nicholls, G., (1998). Expression of stressful experiences through writing:

Effects of a self-regulation manipulation for pessimists and optimists. *Health Psychology*, 17/1, 84-92.

Campbell-Sills, L., Barlow, D.H., Brown, T.A., & Hoffman, S.G., (2006). Acceptability and suppression of negative emotion in anxiety and mood Disorders. *Emotion*, 6/4, 587-595.

Carter, M.M., Sbrocco, T., Gore, K.L., Marin, N.W., & Lewis, E.L., (2003). Cognitive-behavioral group therapy versus a wait-list control in the treatment of African American women with panic disorder. *Cognitive Therapy & Research*, 27/5, 505-518.

Casey, L., Oei, T.P., Newcombe, P.A., & Kenardy, J., (2004). The role of catastrophic misinterpretation of bodily sensations and panic self-efficacy in predicting panic severity. *Journal of Anxiety Disorders*, 18/3, 325-340.

Cassano, G.B., Pini, S., Sacttoni, M., Rucci, P., & Dell'Osso, L., (1998). Occurrence and clinical correlates of psychiatric comorbidity in patients with psychotic disorders. *The Journal of Clinical Psychiatry*, 59, 60-68.

Cavanagh, M., & Franklin, J. (2000). Attention training and hypochondriasis: Preliminary results of a controlled treatment trial. Unpublished paper presented at the World Congress of Cognitive and Behavioral Therapy, Vancouver, Canada (2000) cited in Wells, A., (2007). The attention training technique: Theory, effects, and a metacognitive hypothesis on auditory hallucinations. *Cognitive & Behavioural Practice*, 14, 134-138.

Cheung, V., Chen, E.Y.H., Chen, R.Y.L., Woo, M.F., & Lee, B.K., (2002). A comparison

between schizophrenia patients and healthy controls on the expression of attentional blink in a rapid serial visual presentation (RSVP) paradigm. *Schizophrenia Bulletin*, 28/3, 443-458.

Chung, M.C., Preveza, E., Papandreou, K., & Prevezas, N., (2006). The relationship between posttraumatic stress disorder following spinal cord injury and locus of control. *Journal of Affective Disorders*, 93/1-3, 229-232.

Clark, D.A., & Taylor, S., (2009). The transdiagnostic perspective on cognitive-behavioral therapy for anxiety and depression: New wine for old wineskins? *Journal of Cognitive Psychotherapy*, 23/1, 60-66.

Clark, L.A., & Watson, D., (1991). Tripartite model of anxiety and depression: Psychometric evidence and taxonomic implications. *Journal of Abnormal Psychology*, 100/3, 316-336.

Cloitre, M., Heimberg, R.G., Liebowitz, M.R., & Gitow, A., (1992). Perceptions of control in panic disorder and social phobia. *Cognitive Therapy & Research*, 16/5, 569-577.

Coffey, S.F., Stasiewicz, P.R., Hughes, P.M., & Brimo, M.L., (2006). Trauma-focused imaginal exposure for individuals with comorbid posttraumatic stress disorder and alcohol dependence: Revealing mechanisms of alcohol craving in a cue reactivity paradigm. *Psychology of Addictive Behaviors*, 20/4, 425-435.

Colbert, S.M., & Peters, E.R., (2002). Need for closure and jumping-to-conclusions in delusion-prone individuals. *The Journal of Nervous & Mental Disease*, 190/1, 27-31.

Cornblatt, B.A., Lencz, T., Smith, C.W., Correll, C.U., Auther, A.M., & Nakayama, E., (2003).

The schizophrenia prodrome revisited: A neurodevelopmental perspective.

Schizophrenia Bulletin, 29/4, 633-651.

Cosoff, S.J., & Hafner, R.J., (1998). The prevalence of comorbid anxiety in schizophrenia, schizoaffective disorder and bipolar disorder. *Australian & New Zealand Journal of Psychiatry*, 32, 67-72.

Cox, B.J., Endler, N.S., Lee, P.S., & Swinson, R.P., (1992). A meta-analysis of treatments for panic disorder with agoraphobia: Imipramine, Alprazolam, and *in vivo* exposure. *Journal of Behaviour Therapy & Experimental Psychiatry*, 23/3, 175-182.

Craigie, M.A., Rees, C.S., Marsh, A., & Nathan, P., (2008). Mindfulness-based cognitive therapy for generalized anxiety disorder: A preliminary evaluation. *Behavioural & Cognitive psychotherapy*, 36, 553-568.

Cribb, G., Moulds, M.L., & Carter, S., (2006). Rumination and experiential avoidance in depression. *Behaviour Change*, 23/3, 165-176.

Csukly, G., Czabor, P., Szily, E., Takacs, B., & Simon, L., (2009). Facial recognition in depressed subjects: The impact of intensity level and arousal dimension. *The Journal of Nervous & Mental Disease*, 197/2, 98-103.

Cunill, R., Castells, X., & Simeon, D., (2009). Relationships between obsessive-compulsive symptomatology and severity of psychosis in schizophrenia: A systematic review and meta-analysis. *Journal of Clinical Psychiatry*, 70/1, 70-82.

Cunningham, J.D., Starr, P.A., & Kanouse, D.E., (1979). Self as actor, active observer and

passive observer: Implications for causal attributions. *Journal of Personality & Social Psychology*, 37/7, 1146-1152.

Cutler, C.G., (2005). Self-efficacy and social adjustments of patients with mood disorder. *Journal of the American Psychiatric Nurses Association*, 11/5, 283-289.

Dagleish, T., Yiend, J., Schweizer, S., & Dunn, B.D., (2009). Ironic effects of emotion suppression when recounting distressing memories. *Emotion*, 9/5, 744-749.

Daniels, K., & Guppy, A., (1997). Stressors, locus of control, and social support as consequences of affective psychological well-being. *Journal of Occupational Health Psychology*, 2/2, 156-174.

Dammen, T., Bringager, C.B., Arnesen, H., Ekeberg, O., & Friis, S., (2006). A 1-year follow-up study of patients with chest pains with or without panic disorder. *General Hospital Psychiatry*, 28/6, 516-524.

Darwin, C., (1872). *The Expression of the Emotions in Man and Animals*. London, England: John Murray.

Davidson, J.R.T., Londborg, P., Bernstein, T., et al., (2000). Sertraline and posttraumatic stress disorder: results of 24 weeks' open label sertraline followed by a 28-week discontinuation study. Unpublished paper presented at the 13th ECNP Congress. Munich, Germany. 9-13 September 2000 [Abstract S349]. Cited in Bryant, R.A., & Friedman, M., (2001). Medication and non-medication treatments of post-traumatic stress disorder. *Current Opinion in Psychiatry*, 14/2, 119-123.

de Beurs, E., van Balkom, A.J.L.M., Lange, A., Koele, P., & van Dyck, R., (1995). Treatment of

panic disorder with agoraphobia: Comparison of Fluvoxamine, placebo, and psychological panic management combined with exposure and of exposure in vivo alone. *The American Journal of Psychiatry*, 152/5, 683-691.

De Salvia, D., Barbato, A., Salvo, P., & Zadro, F., (1993). Prevalence and incidence of schizophrenic disorders in Portogruaro: An Italian case register study. *The Journal of Nervous & Mental Disease*, 181/5, 275-282.

Den Boer, P.C.A.M., Wiersa, D., Ten Vaarwerk, I., Span, M.M., Stant A.D., & Van Den Bosch, R.J., (2006). Cognitive self-therapy for chronic depression and anxiety: a multicentre randomized controlled study. *Psychological Medicine*, 37, 329-339.

Derakshan, N., Eysenck, M.W., & Myers, L.B., (2007). Emotional information processing in repressors: The vigilance-avoidance theory. *Cognition and Emotion*, 21/8, 1585-1614.

Dewitte, M., & De Houwer, J., (2008). Adult attachment and attention to positive and negative emotional face expressions. *Journal of Research in Personality*, 42, 498-505.

Dickstein, D.P., Nelson, E.E., McLure, E.B., Grimley, M.E., Knopf, L., Brotman, M.A., Rich, B.A., Pine, D.S., & Leibenluft, E., (2007). Cognitive flexibility in phenotypes of pediatric bipolar disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46/3, 341-355.

DiGiuseppe, R., McGowan, L., Simon, K.S., & Gardner, F., (1990). A comparative outcome study of four cognitive therapies in the treatment of social anxiety. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 8/3, 129-146.

Donnell, C.D., & McNally, R.J., (1990). Anxiety sensitivity and panic attacks in a nonclinical

- population. *Behaviour Research & Therapy*, 28/1, 83-85.
- Dozois, D.J.A., Seeds, P.M., & Collins, K.A., (2009). Transdiagnostic approaches to the prevention of depression and anxiety. *Journal of Cognitive Psychotherapy*, 23/1, 44-59.
- Dulany, D.E., (1957). Avoidance learning of perceptual defence and vigilance. *Journal of Abnormal Psychology*, 55/3, 333-338.
- Dunn, B.D., Dalgleish, T., Lawrence, A.D., & Ogilvie, A.D., (2007). The accuracy of self-monitoring and its relationship to self-focused attention in dysphoria and clinical depression. *Journal of Abnormal Psychology*, 116/1, 1-15.
- Durham, R.C., & Turvey, A.A., (1987). Cognitive therapy vs behaviour therapy in the treatment of chronic general anxiety. *Behaviour Research & Therapy*, 25/3, 229-234.
- Dykeman, B.F., (1994). The effects of motivational orientation, self-efficacy and feedback condition on test anxiety. *Journal of Instructional Psychology*, 21/2, 114-119.
- Eisenberg, N., Fabes, R.A., Guthrie, I.K., & Reiser, M., (2000). Dispositional emotionality and regulation: Their role in predicting quality of social functioning. *Journal of Personality & Social Psychology* 78(1).
- Eiser, J.R., & Fazio, R.H. (2008). How approach and avoidance decisions influence attitude formation and change. In Elliot, A.J., (Ed. 2008). *Handbook of Approach and Avoidance Motivation*. New York: Psychology Press, Taylor & Francis Group, 323-342.
- Ellis, A., (1962). *Reason and emotion in psychotherapy*. Secaucus, NJ: Citadel Press.
- Emmelkamp, P.M.G., & Felten, M., (1985). The process of exposure *in vivo*: cognitive and

physiological changes during treatment of acrophobia. *Behaviour Research & Therapy*, 23/2, 219-223.

Emmelkamp, P.M.G., & Kuipers, A.C.M., (1979). Agoraphobia: A follow-up study 4 years after treatment. *British Journal of Psychiatry*, 134, 352-355.

Emmelkamp, P.M.G., Visser S., & Hoekstra, R.J., (1988). Cognitive therapy vs exposure in vivo in the treatment of obsessive-compulsives. *Cognitive Therapy & Research*, 12/1, 103-114.

Ensum, I., & Morrison, A.P., (2003). The effects of focus of attention on attributional bias in patients experiencing auditory hallucinations. *Behaviour Research & Therapy*, 41, 895-907.

Erickson, D.H. (2003). Group cognitive behavioural therapy for heterogenous anxiety Disorders. *Cognitive Behaviour Therapy*, 32/4, 179-186.

Erickson, D.H., Janeck, A.S., & Tallman, K., (2009). Transdiagnostic group CBT for anxiety: Clinical experience and practical advice. *Journal of Cognitive Psychotherapy*, 23/1, 34-43.

Eysenck, M.W., MacLeod, C., & Mathews, A., (1987). Cognitive functioning and anxiety. *Psychological Research*. Vol 49(2-3) Aug 1987, 189-195.

Fairburn, C.G., (2008). *Cognitive Behavior Therapy and Eating Disorders*. New York: The Guilford Press.

Fairburn, C.G., Cooper, Z., & Shafran, R., (2003). Cognitive behaviour therapy for eating disorders: a "transdiagnostic" theory and treatment. *Behaviour Research & Therapy*, 41, 509-528.

- Fals-Stewart, W., Marks, A.P., & Schafer, J., (1993). A comparison of behavioral group therapy and individual behavior therapy in treating obsessive-compulsive disorder. *The Journal of Nervous & Mental Disease*, 181/3, 189-193.
- Fedoroff, I.C., & Taylor, S. (2001). Psychological and pharmacological treatments of social phobia: A meta-analysis. *Journal of Clinical Psychopharmacology*, 21/3, 311-324.
- Fehm, L., & Margraf, J., (2002). Thought suppression: Specificity in agoraphobia versus broad impairment in social phobia? *Behaviour Research & Therapy*, 40/1, 57-66.
- Feldner, M.T., Zvolensky, M.J., Stickle, T.R., Bonn-Miller, M.O., & Leen-Feldner, E.W., (2006). Anxiety sensitivity-physical concerns as a moderator of the emotional consequences of emotion suppression during biological challenge: An experimental test using individual growth curve analysis. *Behaviour Research & Therapy*, 44/2, 249-272.
- Feltz, D.L., (1982). Path analysis of the causal elements in Bandura's theory of self-efficacy and an anxiety-based model of avoidance behavior. *Journal of Personality & Social Psychology*, 42/4, 764-781.
- Ferraro, F.R., & Washington, T.L.J., (2005). Impact of test anxiety and self-efficacy on test performance. *Psychology and Education: An Interdisciplinary Journal*, 42/2, 8-16.
- Feshbach, S., & Singer, R.D., (1957). The effects of fear arousal and suppression of fear upon social perception. *Journal of Abnormal & Social Psychology*, 55/3, 283-288.
- Folkman, S., & Lazarus, R.S., (1980). An analysis of coping in a middle-aged community sample. *Journal of Health & Social Behavior*, 21, 219-239.
- Folkman, S., Lazarus, R.S., Gruen, R.J., & DeLongis, A., (1986). Appraisal, coping, health

status, and psychological symptoms. *Journal of Personality & Social Psychology*, 50/3, 571-579.

Folkman, S., Lazarus, R.S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R., (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping and encounter outcomes. *Journal of Personality & Social Psychology*, 50/5, 992-1003.

Fontaine, R., Chouinard, G., & Annable, L., (1984). Rebound anxiety in anxious patients after abrupt withdrawal from benzodiazepine treatment. *American Journal of Psychiatry*, 141, 848-851.

Fox, E., Russo, R., Bowls, R., & Dutton, K., (2001). Do threatening stimuli draw or hold visual attention in subclinical anxiety? *Journal of Experimental Psychology, General*, 130, 681-700.

Fox, E., Russo R., & Dutton, K., (2002). Attentional bias for threat: Evidence for delayed disengagement from emotional faces. *Cognition & Emotion*, 16/3, 355-379.

Franklin, M.E., Abramowitz, J.S., Kozak, M.J., Lewitt J.T., & Foa, E.B., (2000). Effectiveness of exposure and ritual prevention for obsessive-compulsive disorder: Randomised compared with nonrandomised samples. *Journal of Consulting & Clinical Psychology*, 68/4, 594-602.

Franzblau, S.H., Kanadanian, M., & Rettig, E., (1995). Critique of reductionistic models of obsessive-compulsive disorder: Toward a new explanatory paradigm. *Social Science & Medicine*, 41/1, 99-112.

Fresco, D.M., Williams, N.L., & Nugent, N.R., (2006). Flexibility and negative affect:

Examining the associations of explanatory flexibility and coping flexibility to each other and to depression and anxiety. *Cognitive Therapy & Research*, 30/2, 201-210.

Freud, S. (1895/1957). *The Standard Edition of the Complete Psychological Works of Sigmund Freud*. London: Hogarth.

Friedberg, R.D., McClure, J.M., Wilding, L., Goldman, M.L., Long, M.P., Anderson, L., & DePolo, M.R., (2003). A cognitive-behavioural skills training group for children experiencing anxious and depressive symptoms: A clinical report with accompanying descriptive data. *Journal of Contemporary Psychotherapy*, 33/3, 157-175.

Fuller, R.L., Luck, S.J., Braun, E.L., Robinson, B.M., McMahon, R.P., & Gold, J.M., (2006). Impaired control of visual attention in schizophrenia. *Journal of Abnormal Psychology*, 115/2, 266-275.

Galassi, F., Quercioli, S., Charismas, D., Niccolai, V., & Barciulli, E., (2007). Cognitive-behavioral group treatment for panic disorder with agoraphobia. *Journal of Clinical Psychology*, 63/4, 409-416.

Garnefski, N., Kraaij, V., Spinhoven, P., (2001). Negative life events, cognitive emotion regulation and emotional problems. *Personality & Individual Differences*, 30/8, 1311-1327.

Garnefski, N., Legerstee, J., Kraaij, V., van den Kommer, T., & Teerds, J., (2002). Cognitive coping strategies and symptoms of depression and anxiety: a comparison between adolescents and adults. *Journal of Adolescence*, 25, 603-611.

Garnefski, N., Teerds, J., Kraaij, V., Legerstee, J., & van den Kommer, T., (2004). Cognitive

emotion regulation strategies and depressive symptoms: Differences between males and females. *Personality & Individual Differences*, 36/2, 267-276.

Gelder, M., (1979). Behaviour therapy for neurotic disorders. *Behavior Modification*, 3/4, 469-495.

Giannopoulou, I., Dikaiakou, A., & Yule, W., (2006). Cognitive-behavioural group intervention for PTSD symptoms in children following the Athens 1999 earthquake: A pilot study. *Clinical Child Psychology & Psychiatry*, 11/4, 543-553.

Goldner, E., Hsu, L., Waraich, P., & Somers, J.M., (2002). Prevalence and incidence studies of schizophrenic disorders: A systematic review of the literature. *The Canadian Journal of Psychiatry*, 47/9, 833-843.

Gomez, R., & McLaren, S., (2006). The association of avoidance coping style, and perceived mother/father support with anxiety/depression among late adolescents: Applicability of resilience models. *Personality & Individual Differences*, 40, 1165-1176.

Grayson, J.B, Foa, E.B., & Steketee, G.S., (1986). Exposure in vivo of obsessive-compulsives under distracting and attention-focusing conditions: Replication and extension. *Behaviour Research & Therapy*, 24/4, 475-479.

Green, M.J., & Malhi, G.S., (2006). Neural mechanisms of the cognitive control of emotion. *Acta Neuropsychiatrica*, 18, 144-153.

Greenberg, L.S., (2004). Emotion-focused therapy. *Clinical Psychology & Psychotherapy*, 11, 3-16.

Greenberg, D., & Padesky, C.A., (1995). *Mind Over Mood: Change How You Feel by Changing*

the Way You Think. New York: The Guilford Press.

Greenberg, P.E., Sisitsky, T., Kessler, R.C., Finkelstein, S.N., Berndt, E.R., Davidson, J.R.T.,

Ballenger, R.C., & Fryer, A.J., (1999). The economic burden of anxiety disorders in the 1990s. *Journal of Clinical Psychiatry*, 60/7, 427-435.

Gross, J.J., (1998). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression and physiology. *Journal of Personality & Social Psychology*, 74/1, 224-237.

Gross, J.J., & John, O.P., (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality & Social Psychology*, 85/2, 348-362

Gross, J.J., & Levenson, R.W., (1997). Hiding feelings: The acute effects of inhibiting negative and positive emotion. *Journal of Abnormal Psychology*, 106/1, 95-103.

Gruber, J., Eidelman, P., & Harvey, A.G., (2008). Transdiagnostic emotion regulation processes in bipolar disorder and insomnia. *Behaviour Research & Therapy*, 46, 1096-1100.

Gustave-Bochner, B., (2008). *Changes in depression, anxiety and subjective well-being among new mothers in a professionally facilitated support group*. Unpublished master's thesis, New York University, School of Social Work, New York, UMI 3326767.

Halperin, S., Nathan, P., Drummond, P., & Castle, D., (2000). A cognitive-behavioural, group-based intervention for social anxiety in schizophrenia. *Australian & New Zealand Journal of Psychiatry*, 34, 809-813.

- Hafner, J., & Marks, I., (1976). Exposure *in vivo* of agoraphobics: Contributions of diazepam, group exposure and anxiety evocation. *Psychological Medicine*, 6, 71-88.
- Hand, I., (2000). Group exposure *in vivo* for agoraphobics (1974): A multifaceted pilot study and its impact on subsequent agoraphobia research. *Behavioural & Cognitive Psychotherapy*, 28, 335-351.
- Hand, I., Angenendt, J., Fischer, M., & Wilke, C., (1986). Exposure *in vivo* with panic management for agoraphobia: Treatment rationale and long term outcome. In I. Hand & H.U. Wittchen (Eds.), *Panic and phobias* (pp104-127). Berlin: Springer Verlag.
- Hand, I., Lamontagne, Y., & Marks, I., (1974). Group exposure (flooding) *in vivo* for agoraphobics. *British Journal of Psychiatry*, 124, 588-602.
- Hannisdottir, D.K., & Ollendick, T.H., (2007). Social cognition and social anxiety among Icelandic schoolchildren. *Child & Family Behavior Therapy*, 29/4, 43-58.
- Harvey, A.G., & Bryant, R.A., (1998). The effect of attempted thought suppression in acute stress disorder. *Behaviour Research & Therapy*, 36/6, 583-590.
- Hayes, S.C., Strosahl, K., Wilson, K.G., Bissett, R.T., Pistorello, J., Toarmino D., Polusny, M.A., Dykstra, T.A., Batten, S.V., Bergen, J., Stewart, S.H., Zvolensky, M.J., Eifert, G.H., Bond, F.W., Forsyth, J.P., Karekla, M., & McCurry, S.M., (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record*, 54, 553-578.
- Heimberg, R.G., Dodge, C.S., Hope, D.A., Kennedy, C.R., Zollo, L.J., & Becker, R.E., (1990).

Cognitive behavioral group treatment for social phobia: Comparison with a credible placebo control. *Cognitive Therapy & Research*, 14/1, 1-23.

Heimberg, R.G., Klosko, J.S., Dodge, C.S., Shadick, R., Becker, R.E., & Barlow, D.H., (1989).

Anxiety disorders, depression and attributional style: A further test of the specificity of depressive attributions. *Cognitive Therapy & Research*, 13/1, 21-36.

Heimberg, R.G., Vermilyea, J.A., Dodge, C.S., Becker, R.E., & Barlow, D.H., (1987).

Attributional style, depression and anxiety: An evaluation of the specificity of depressive attributions. *Cognitive Therapy & Research*, 11/5, 537-550.

Heim-Dreger, U., Kohlmann, C-W., Eschenbeck, H., & Burkhardt, U., (2006). Attentional

biases for threatening faces in children: Vigilant and avoidance processes. *Emotion*, 6/2, 320-325.

Henderson, S., Andrews, G., & Hall, W., (2000). Australia's mental health: an overview of the general population survey. *Australian & New Zealand Journal of Psychiatry*, 34, 197-205.

Hicks, T.V., Leitenberg, H., Barlow, D.H., Gorman, J.M., Shear, M.K., & Woods, S.W., (2005).

Physical, mental, and social catastrophic cognitions as prognostic factors in cognitive-behavioral and pharmacological treatments for panic disorder. *Journal of Consulting & Clinical Psychology*, 73/3, 506-514.

Hoffart, A., (1995). Cognitive mediators of situation fear in agoraphobia. *Journal of Behavior Therapy & Experimental Psychiatry*, 26/4, 313-320.

Hoffart, A., Borge, F., Sexton, H., & Clark, D.M., (2009). Change processes in residential

cognitive and interpersonal psychotherapy for social phobia: A process-outcome study. *Behavior Therapy*, 40, 10-22.

Hofmann, S.G., (2004). Cognitive mediation of treatment change in social phobia. *Journal of Consulting & Clinical Psychology*, 72/3, 392-399.

Hofmann, S.G., Moscovitch, D.A., Kim H., & Taylor, A.N., (2004). Changes in self-perception during treatment of social phobia. *Journal of Consulting & Clinical Psychology*, 72/4, 588-596.

Holmes, E.A., Geddes, J.R., Colom, F., & Goodwin, G.M., (2008). Mental imagery as an emotional amplifier: Application to bipolar disorder. *Behaviour Research & Therapy*, 46, 1251-1258.

Horan, W.P., Ventura, J., Mintz, J., Kopelowicz, A., Wirshing, D., Christian-Herman, J., Foy, D., & Liberman, R.P., (2007). Stress and coping responses to natural disaster in people with schizophrenia. *Psychiatry Research*, 151, 77-86.

Howland, R.H., (2007). Managing common side effects of SSRIs. *Journal of Psychosocial Nursing*, 45/2, 15-18.

Ingram, R.E., (1990). Self-focused attention in clinical disorders: Review and a conceptual model. *Psychological Bulletin*, 107/2, 156-176.

James, W., (1890). *Principles of Psychology*. London: MacMillan.

Jeffers, S. (1989) *Feel the Fear and Do It Anyway*. London, United Kingdom: Century

Johnson, S.L., McKenzie, G., & McMurrich, S., (2008). Ruminative responses to negative

and positive affect among students diagnosed with bipolar disorder and major depressive disorder. *Cognitive Therapy & Research*, 32, 702-713.

Jones, L., Scott, J., Haque, S., Goron-Smith, K., Heron, J., Caesar, S., Cooper, C., Forty, L., Hyde, S., Lyon, L., Greening, J., Sham, P., Farmer, A., McGuffin, P., Jones, I., & Craddock, N., (2005). Cognitive style in bipolar disorder. *British Journal of Psychiatry*, 187, 431-437.

Jones, S.R., & Fernyhough, C., (2007). A new look at the diathesis-stress model of schizophrenia: The primacy of social-evaluative and uncontrollable situations. *Schizophrenia Bulletin*, 33/5, 1171-1177.

Juaretta, N., Jimenez-Murcia, S., Alonso, P., Granero, R., Segalas, C., Labad, J., & Menchon, J., (2008). Individual versus group cognitive behavioural treatment for obsessive-compulsive disorder: Follow up. *Psychiatry & Clinical Neurosciences*, 62, 697-704.

Kaiser, S., Roth, A., Rentrop, M., Friederich, H., Bender, S., & Wasibrod, M., (2008). Intra-individual reaction time variability in schizophrenia, depression and borderline personality disorder. *Brain & Cognition*, 66, 73-82.

Kaney, S., Wolfenden, M., Dewey, M.E., & Bentall, R.P., (1992). Persecutory delusions and recall of threatening propositions. *British Journal of Clinical Psychology*, 31/1, 85-86.

Karademas, E.C., (2006). Self-efficacy, social support and well-being: The mediating role of optimism. *Personality & Individual Differences*, 40/6, 1281-1290.

Katon, W., & Roy-Bryne, P., (1991). Mixed anxiety and depression. *Journal of Abnormal Psychology*, 100, 337-345.

- Kasch, K.L., Rottenberg, J., Arnow, B.A., & Gotlib, I.H., (2002). Behavioral activation and inhibition systems and the severity and course of depression. *Journal of Abnormal Psychology*, 111/4, 589-597.
- Kenardy, J., Evans, L., & Oei, T.P., (1990). Attributional style and panic disorder. *Journal of Behavioural Therapy & Experimental Psychiatry*, 21/1, 9-13.
- Kennard, B.D., Stewart, S.M., Hughes, J.L., Patel, P.G., & Emslie, G.J., (2006). Cognitions and depressive symptoms across ethnic minority adolescents. *Cultural Diversity & Ethnic Minority Psychology*, 12/3, 578-591.
- Kennedy, B.L., Lynch, G.V., & Swab, J.J., (1998). Assessment of locus of control in patients with anxiety and depressive disorders. *Journal of Clinical Psychology*, 54/4, 509-515.
- Kendrick, T., (1999). Primary care options to prevent mental illness. *Annals of Medicine*, 31/6, 359-363.
- Kenrick, D.T., & Shiota, M.N., (2008). Evolution of evaluative processes II: Approach and avoidance Motivation(s): An evolutionary perspective. In Elliot, A.J., (Ed. 273-288). *Handbook of Approach and Avoidance Motivation*. New York: Psychology Press, Taylor & Francis Group.
- Kessler, R.C., Berglund, P., Demler, O., Jin, R., Merikangas, K.R., & Walters, E.E., (2005a). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 593-602.
- Kessler, R.C., Birnbaum, H., Demler, O., Falloon, I.R.H., Gagnon, E., Guyer, M., Howes, M.J.,

- Kendler, K.S., Shi, L., Walters, E., & Wu, E.Q., (2005). The prevalence and correlates of nonaffective psychosis in the National Comorbidity Survey Replication (NCS-R). *Biological Psychiatry*, 58/8, 668-676.
- Kessler, R.C., Chiu, W.T., Demler, O., & Walters, E.E., (2005b). Prevalence, severity, and comorbidity of 12-Month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 617-627.
- Kessler, R.C., McGonagle, K.A., Zhao, S., Nelson, C.B., Hughes, M., Eshleman, S., Wittchen, H.U., & Kendler, K.S., (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. *Archives of General Psychiatry*, 51, 8-19.
- Kessler, R.C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C.B., (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry*, 52, 1048-1060.
- Kessler, R.C., Stang, P.E., Wittchen, H.U., Ustun, T.B., Roy-Burne, P.P., & Walters, E.E., (1998). Lifetime panic-depression comorbidity in the National Comorbidity Survey. *Archives of General Psychiatry*, 55, 801-808.
- Kilpatrick, Veronen & Best, (1985). Factors predicting psychological distress amongst rape victims. In Figley, C.R., (ed.) *Trauma and its Wake: The Study and Treatment of PTSD*, Brunner/Mazel, New York, 113-141.
- King, N.J., & Tonge, B.J., (1992). Treatment of childhood anxiety disorders using behaviour therapy and pharmacotherapy. *Australian & New Zealand Journal of Psychiatry*, 26/4, 644-651.

- Kircanski, K., Craske, M.G., & Bjork, R.A., (2008). Thought suppression enhances memory bias for threat material. *Behaviour Research & Therapy*, 46, 462-476.
- Kirsch, I., (1985). Self-efficacy and expectancy: Old wine with new labels. *Journal of Personality & Social Psychology*, 49/3, 824-830.
- Kleim, B., Vauth, R., Adam, G., Stieglitz, R., Hayward, P., & Corrigan, P., (2008). Perceived stigma predicts low self-efficacy and poor coping in schizophrenia. *Journal of Mental Health*, 17/5, 482-491.
- Knowles, R., Tai, S., Jones, S.H., Highfield, J., Morriss, R., & Bentall, R.P., (2007) Stability of self-esteem in bipolar disorder: comparisons among remitted bipolar patients, remitted unipolar patients and healthy controls. *Bipolar Disorders*, 9, 490-495.
- Kohler, C.G., Martin, E.A., Milonova, M., Wang, P., Verma, R., Brensinger, C.M., Bilker, W., Gur, R.E., & Gur, R., (2008). Dynamic evoked facial expressions of emotions in schizophrenia. *Schizophrenia Research*, 105, 30-39.
- Kosmidis, M.H., Breier, A., & Fantie, B.D., (1999). Avoidance learning in schizophrenia: a dissociation between the effects of aversive and non-aversive stimuli. *Schizophrenia Research*, 38, 51-59.
- Kramer, M., Von Korff, M., & Kessler, L., (1980). The lifetime prevalence of mental disorders: Estimation, uses and limitations. *Psychological Medicine*, 10, 429-435.
- Kreitler, K., & Kreitler, H., (1988). Trauma and anxiety: The cognitive approach. *Journal of Traumatic Stress*, 1/1, 35-56.
- Kroenke, K., Spitzer, R.L., Williams, J., Monahan P.O., and Lowe, B., (2007). Anxiety

disorders in primary care: Prevalence, impairment, comorbidity and detection. *Annals of Internal Medicine*, 146/5, 317-325.

Lanyon, R.I., & May, A.C., (1979). Relationship between spontaneous imagery distortions and schizophrenic psychopathology. *Journal of Mental Imagery*, 3, 43-52.

Larkin, K.T., Waller, S., & Combs-Lane, A., (2003). Anxiety management group for multiple anxiety diagnoses. In P. J. Norton (Chair), Integrative treatment approaches across anxiety and related disorders, a symposium conducted at the annual meeting of the Anxiety Disorders Association of America, Toronto, Ontario, Canada. Cited in Norton, P.J., & Philipp, L.M., (2008). Transdiagnostic approaches to treatment of anxiety disorders: A quantitative review. *Psychotherapy Theory, Research, Practice, Training*. 45/2, 214-226.

Larsen, A., (2005). *Utility of a Stress and Anxiety Support Group for Law Enforcement Personnel: A Case Study*. Unpublished doctoral thesis, Alliant International University, Centre for Forensic Studies, Fresno, UMI 3178687.

Leahy, R., (2007). Emotional schemas and resistance to change in anxiety disorders. *Cognitive & Behavioral Practice*, 14, 36-45.

Lee, K., Noda, Y., Nakano, Y., Ogawa, S., Kinoshita, Y., Funayama, T., & Furukawa, T.A., (2006). Interoceptive hypersensitivity and interoceptive exposure in patients with panic disorder: specificity and effectiveness. *BMC Psychiatry*, 6, 32-40.

Leen-Feldner, E., Feldner, M.T., Reardon, L.E., Babson, K.A., & Dixon, L., (2008). Anxiety

- sensitivity and PTSD among traumatic event-exposed youth. *Behaviour Research & Therapy*, 46/4, 548-556.
- Leen-Feldner, E.W., Zvolensky, M.J., Feldner, M.T., & Lejuez, C.W., (2004). Behavioral inhibition: relation to negative emotion regulation and reactivity. *Personality & Individual Differences*, 36, 1235-1247.
- Levitt, J.T., Brown, T.A., Orsillo, S.M., & Barlow, D.H., (2004). The Effects of acceptance versus suppression of emotion on subjective and psychophysiological response to carbon dioxide challenge in patients With panic disorder. *Behavior Therapy*, 35/4, 747-766.
- Levy, A.G., Maselko, J., Bauer, M., Richman, L., & Kubansky, L., (2007). Why do people with an anxiety disorder utilize more nonmental health care than those without? *Health Psychology*, 26/5, 545-553.
- Liddle, P.F., (1987). The symptoms of chronic schizophrenia: A re-evaluation of the positive-negative dichotomy. *British Journal of Psychiatry*, 151, 141-151.
- Lilienfeld, S.O., (1996). Anxiety sensitivity is not distinct from trait anxiety. In Rapee, R.M. (Ed.) *Current Controversies in the Anxiety Disorders* (228-244). New York: The Guilford Press.
- Lindstrom, E., Widerlov, B., & von Knorring, L., (1997). The ICD-10 and DSM-IV diagnostic criteria and the prevalence of schizophrenia. *European Psychiatry*, 12, 217-223.
- Lipsitz, J.D., Gur, M.G., Vermes, D., Petkova, E., Cheng, J., Miller, N., Laino, J., Liebowitz,

- M.R., & Fyer, A.J., (2008). A randomized trial of interpersonal therapy versus supportive therapy for social anxiety disorder. *Depression & Anxiety*, 25, 542-553.
- Loftus, S.T., Garno, J.L., Jaeger, J., & Malhotra, A.K., (2008). Temperament and character dimensions in bipolar I disorder: A comparison to healthy controls. *Journal of Psychiatric Research*, 42, 1131-1136.
- Luck, S.J., & Gold, J.M., (2008). The construct of attention in schizophrenia. *Biological Psychiatry*, 64, 34-39.
- Lucock, M.P., & Salkoskis, P.M., (1988). Cognitive factors in social anxiety and its treatment. *Behaviour Research & Therapy*, 26/4, 297-302.
- Lumpkin, P.W., Silverman, W.K., Weems, C.F., Markham, M.R., & Kurtines, W.M., (2002). Treating a heterogenous set of anxiety disorders in youths with group cognitive behavioural therapy: A partially nonconcurrent multiple baseline design evaluation. *Behavior Therapy*, 33, 163-177.
- Lund, V.E., (2000). *Perceived Quality of Life for Persons with Bipolar Disorder: The Role of Medication Compliance, Family and Health Stress, Level of Coping and Health Locus of Control*. Unpublished dissertation, Florida State University, United States of America, UMI 9939292.
- Lundh, L., & Ost, L., (2001). Attentional bias, self-consciousness and perfectionism in social phobia before and after cognitive-behaviour therapy. *Scandinavian Journal of Behaviour Therapy*, 30/1, 4-16.
- Luszczynska, A., Benight, C.C., & Cieslak, R., (2009). Self-efficacy and health-related

- outcomes of collective trauma: A systematic review. *European Psychologist*, 14/1, 51-62.
- Lysaker, P.H., Bell, M., Bryson, G.J., & Kaplan, E.B., (1998). Insight and interpersonal function in schizophrenia. *The Journal of Nervous & Mental Disease*, 186/7, 432-436.
- Lysaker, P.H., Clements, C.A., Wright, D.E., Evans, J., & Marks, K.A., (2001). Neurocognitive correlates of helplessness, hopelessness, and well-being in schizophrenia. *The Journal of Nervous & Mental Disease*, 189/7, 457-462.
- Lysaker, P., Lancaster, R.S., Nees, M.A., & Davis, L.W., (2003). Attributional style and symptoms as predictors of social function in schizophrenia. *Schizophrenia Research*, 60/1, 21.
- Lysaker, P.H., & LaRocco, V.A., (2008). The prevalence and correlates of trauma-related symptoms in schizophrenia spectrum disorder. *Comprehensive Psychiatry*, 49, 330-334.
- Lysaker, P.H., Wilt, M.A., Plascak-Hallberg, C.D., Brenner, C.A., & Clements, C.A., (2003). Personality dimensions in schizophrenia: Associations with symptoms and coping. *The Journal of Nervous & Mental Disease*, 191/2, 80-86.
- MacLeod, C., Mathews A., & Tata, P., (1986). Attentional bias in emotional disorders. *Journal of Abnormal Psychology*, 95/1, 15-20.
- McMahon, A.L., (1990). *The effects of family systems education and counseling support group intervention on the state anxiety, help seeking behavior, perception of health in family of origin, and perception of family's social environment of adult children with aging parents.*
Unpublished dissertation, St Johns University, New York, UMI 9019143.
- Magee, J.C., & Zinbarg, R.E., (2007). Suppressing and focusing on a negative memory in

social anxiety: Effects on unwanted thoughts and mood. *Behaviour Research & Therapy*, 45/12, 2836-2849.

Magee, W.J., Eaton, W.W., Wittchen, H.U., McGonagle, K.A., & Kessler, R.C., (1996).

Agoraphobia, simple phobia, and social phobia in the National Comorbidity Survey. *Archives of General Psychiatry*, 53, 159-168.

Mandler, G., (1975). *Mind and Emotion*. New York: Wiley.

Maner, J.K., & Schmidt, N.B., (2006). The role of risk avoidance in anxiety. *Behavior Therapy*, 37, 181-189.

Mansell, W., Clarke, D.M., & Ehlers, A., (2003). Internal versus external attention in social anxiety: An investigation using a novel paradigm. *Behaviour Research & Therapy*, 41/5, 555-572.

Mansell, W., Harvey, A., Watkins, E., & Shafran, R., (2009). Conceptual foundations of the transdiagnostic approach to CBT. *Journal of Cognitive Psychotherapy*, 23/1, 6-19.

Mantani, N., (2006). Kampo medicine for anxiety disorders. In Sanfelippo, A.J., (Ed; 113-118). *Panic disorders: New Research*, Nova Science Publishers Inc., New York.

Marchand, A., Todorov, C., Borgeat, F., & Pelland, M., (2007). Effectiveness of a brief cognitive behavioural therapy for panic disorder with agoraphobia and the impact of partner involvement. *Behavioural & Cognitive Psychotherapy*, 35/615-629.

Marks, I.M., (2002). The maturing of therapy: some brief psychotherapies help anxiety/depressive disorders but mechanisms of action are unclear. *The British Journal of Psychiatry*, 180, 200-204.

- Martin, J.A., & Penn, D.L., (2002). Attributional style in schizophrenia: An investigation in outpatients with and without persecutory delusions. *Schizophrenia Bulletin*, 28/1, 131-141.
- McEvoy, P.M., & Nathan, P., (2007). Effectiveness of a cognitive behavior therapy for diagnostically heterogeneous groups: A benchmarking study. *Journal of Consulting & Clinical Psychology*, 75/2, 344-350.
- McEvoy, P.M., Nathan, P., & Norton, P.J., (2009). Efficacy of transdiagnostic treatments: A review of published outcome studies and future research directions. *Journal of Cognitive Psychotherapy*, 23/1, 20-33.
- McEvoy, P.M., & Perini, S.M., (2009). Cognitive behavioural group therapy for social phobia with or without attention training: a controlled trial. *Journal of Anxiety Disorders*, 23/4, 519-518.
- McGorry, P.D., Chanen, A., McCarthy, E., Van Riel, R., McKenzie, D., & Singh, B.S., (1991). Posttraumatic stress disorder following recent-onset psychosis: An unrecognised postpsychotic syndrome. *The Journal of Nervous & Mental Disease*, 179/5, 253-258.
- McLean, C.P., Miller, N.A., & Hope, D.A., (2007). Mediating social anxiety and eating disorders: The role of expressive suppression. *Eating Disorders: The Journal of Treatment & Prevention*, 15/1, 41-54
- McNally, R.J., (1996). Anxiety sensitivity is distinguishable from trait anxiety. In Rapee, R.M., (Ed., 214-227) *Current Controversies in the Anxiety Disorders*. New York: The Guilford Press.

- Menin, D.S., Heimburg, R.G., Turk, C.L., & Fresco, D.M., (2005). Preliminary evidence for an emotion dysregulation model of generalised anxiety disorder. *Behaviour Research & Therapy*, 43, 1281 – 1310.
- Mendelowicz, M.V., & Stein, M.B., (2000). Quality of life in individuals with anxiety disorders. *American Journal of Psychiatry*, 157, 669-682.
- Meyers, G., (2005). *The impact of participation in a support group on perception of social support and level of anxiety in patients with an implantable cardioverter defibrillator*. Unpublished dissertation, Binghamton University, New York, UMI 3165054.
- Michelson, L.K., Bellanti, C.J., Testa, S.M., & Marchione, N., (1997). The relationship of attributional style to agoraphobia severity, depression, and treatment outcome. *Behaviour Research & Therapy*, 35/12, 1061-1073.
- Miller, W.R., & Arkowitz, H., (1977). Anxiety and perceived causation in social success and failure experiences: Disconfirmation of an attribution hypothesis in two experiments. *Journal of Abnormal Psychology*, 86/6, 665-668.
- Mitte, K., (2005). Meta-analysis of cognitive-behavioral treatments for generalized anxiety disorder: A comparison with pharmacotherapy. *Psychological Bulletin*, 131/4, 785-795.
- Mogg, K., Holmes, A., Garner, M., & Bradley, B.P., (2008). Effects of threat cues on attentional shifting, disengagement and response slowing in anxious individuals. *Behaviour Research & Therapy*, 46, 656-667.
- Mohlman, J., Cedeno, L.A., Price, R.B., Hekler, E.B., Yan G.W., & Fishman, D.B., (2008).

Deconstructing demons: The case of Geoffrey. *Pragmatic Case Studies in Psychotherapy*, 4/3, 1-39.

Moos, R., Schaefer, J., Andrassy, J., & Moos, B., (2001). Outpatient mental health care, self-help groups, and patients' one-year treatment outcomes. *Journal of Clinical Psychology*, 57/3, 273-287.

Monk, C.S., Nelson, E.E., McClure, E.B., Mogg, K., Bradley, B.P., Leibenluft, E., Blair, R.J.R., Chen, G., Charney, D.S., Ernst, M., & Pine, D.S., (2006). Ventrolateral prefrontal cortex activation and attentional bias in response to angry faces in adolescents with generalized anxiety disorder. *American Journal of Psychiatry*, 163/6, 1091-1097.

Moras, K., Telfer, L.A., & Barlow, D.H., (1993). Efficacy and specific effects data on new treatments: A case study strategy with mixed anxiety-depression. *Journal of Consulting & Clinical Psychology*, 61/3, 412-420.

Moritz, S., & Laudan, A., (2007). Attention bias for paranoia-relevant visual stimuli in schizophrenia. *Cognitive Neuropsychiatry*, 12/5, 381-390.

Moritz, S., Woodward, T.S., Burlon, M., Braus, D.F., & Andresen, B., (2007). Attributional style in schizophrenia: Evidence for a decreased sense of self-causation in currently paranoid patients. *Cognitive Therapy & Research*, 31, 371-383.

Mosher, L.R., (2004). Non-hospital, non-drug intervention with first-episode psychosis. In Read, J., Mosher, L.R., & Bentall, R.P., (Eds., 349- 364) *Models of Madness: Psychological, Social and Biological Approaches to Schizophrenia*. New York: Routledge.

Mula, M., Pini, S., Monteleone, P., Iazzetta, P., Preve, M., Tortorella, A., Amato, E., Di Paolo,

- L., Conversano, C., Rucci, P., Cassano, G.B., & Maj, M., (2008). Different temperament and character dimensions correlate with panic disorder comorbidity in bipolar disorder and unipolar depression. *Journal of Anxiety Disorders*, 22, 1421-1426.
- Muller, J. E., Koen, L., Seedat, S., & Stein, D.J., (2005) Social anxiety disorder: Current treatment recommendations. *CNS Drugs*, 19/5, 377-391.
- Muris, P., Mayer, B., & Merckelbach, H., (1998). Trait anxiety as a predictor of behaviour therapy outcome in spider phobia. *Behavioural and Cognitive Psychotherapy*, 26, 87-91.
- Muris, P., Merckelbach, H., Schmidt, H., Gadet, B., & Bogie, N., (2001). Anxiety and depression as correlates of self-reported behavioural inhibition in normal adolescents. *Behaviour Research & Therapy*, 39/9, 1051-1061.
- Neron, S., Lacroix, D., & Chaput, Y., (1995). Group vs individual cognitive behaviour therapy in panic disorder: An open clinical trial with a six month follow-up. *Canadian Journal of Behavioural Science*, 27/4, 379-392.
- Neuringer, C., Kaplan, H.A., & Goldstein, G., (1974). Schizophrenic avoidance of strong meaning associations to emotional words. *The Journal of Genetic Psychology*, 124, 123-129.
- Nixon, R., Menne, A., Kling, L., Steele, A., Barnes, J., Dohnt, H., Ball, S., & Tyler, H., (2008). Metacognition, working memory and thought suppression in acute stress disorder. *Australian Journal of Psychology*, 60/3, 168-174.
- Norton, P.J., (2006). Toward a clinically-oriented model of anxiety disorders. *Cognitive Behaviour Therapy*, 35, 88-105.

- Norton, P.J. (2008). An open trial of a transdiagnostic cognitive-behavioral group therapy for anxiety disorder. *Behavior Therapy*, 39, 242-250.
- Norton, P.J., (2009). Integrated psychosocial treatment of multiple anxiety disorders. In Antony, M.M., & Stein, M.B., (Eds., 441-450), *Oxford Handbook of Anxiety and Related Disorders*. New York: Oxford.
- Norton, P.J., Hayes, S.A., & Hope, D.A., (2004). Effects of a transdiagnostic group treatment for anxiety on secondary depression. *Depression & Anxiety*, 20, 198-202.
- Norton, P.J., and Hope, D.A., (2008). The “anxiety treatment protocol”: A group case study demonstration of a transdiagnostic group cognitive behavioural therapy for anxiety disorders. *Clinical Case Studies*, 7/6, 538-554.
- Norton, P.J., & Hope, D.A., (2005). Preliminary evaluation of a broad-spectrum cognitive-behavioral group therapy for anxiety. *Journal of Behavior Therapy & Experimental Psychiatry*, 36, 79-97.
- Norton, P.J., & Philipp, L.M., (2008). Transdiagnostic approaches to treatment of anxiety disorders: A quantitative review. *Psychotherapy Theory, Research, Practice, Training*. 45/2, 214-226.
- Norton, P.J., & Price, E.C., (2007). A meta-analytic review of adult cognitive-behavioral treatment outcome across the anxiety disorders. *The Journal of Nervous & mental Disease*, 195/6, 521-531.
- Oakley Browne, M.A., Wells, J.E., Scott, K.M., & McGee, M.A., (2006a). Lifetime prevalence

and projected lifetime risk of DSM-IV disorders in Te Rau Hinengaro: The New Zealand Mental Health Survey. *Australian & New Zealand Journal of Psychiatry*, 40, 865-874.

Oakley Browne, M.A., Wells, J.E., & McGee, M.A., (2006b). Twelve-month and lifetime service use in Te Rau Hinengaro: The New Zealand Mental Health survey. *Australian & New Zealand Journal of Psychiatry*, 40, 855-864.

Ohman, A., (1987). Preferential preattentive processing in anxiety: Preparedness and attentional biases. In Rapee, R.M., (Ed., 253-290) *Current Controversies in the Anxiety Disorders*. New York: The Guilford Press.

Olatunji, B., Forsyth, J., & Feldner, M., (2007). Implications of emotion regulation for the shift from normative fear-relevant learning to anxiety-related psychopathology. *American Psychologist*, 62/3, 257-259.

Olbrich, R., & Mussgay, L., (1990). Reduction of schizophrenic deficits by cognitive training: An evaluative study. *European Archives of Psychiatry & Neurological Sciences*, 239/6, 366-369.

Page, A., (2002). Nature and treatment of panic disorder. *Current Opinion in Psychiatry*, 15, 149-155.

Page, A.C., Jones, R., & Wilson, F., (2004). Survey of West Australian anxiety support group participants' views on treatment processes and outcomes. *Australian Psychologist*, 39/3, 208-211.

Pallanti, S., Quercioli, L., & Hollander, E., (2004). Social Anxiety in outpatients with

schizophrenia: A relevant cause of disability. *American Journal of Psychiatry*, 161/1, 53-58.

Pasahow, R.J., (1980). The relation between an attributional dimension and learned helplessness. *Journal of Abnormal Psychology*, 89/3, 358-367.

Paulik, G., Badcock, J.C., & Maybery, M.T., (2008). Dissociating the components of inhibitory control involved in predisposition to hallucinations. *Cognitive Neuropsychiatry*, 13/1, 33-46.

Palyo, S.A., & Beck, J.G., (2005). Post-traumatic stress disorder symptoms, pain, and perceived life control: Associations with psychosocial and physical functioning. *Pain*, 117/1-2, 121-127.

Pelligrini, D., Kosisky, S., Nackman, D., Cytryn, L., McKnew, D.H., Gershon, E., Hamovit, J., & Cammuso, K., (1986) Personal and social resources in children of patients with bipolar affective disorder and children of normal control subjects. *American Journal of Psychiatry*, 143/7, 856-861.

Pennebaker, J.W., (1985). Inhibition and cognition: Toward an understanding of trauma and disease. *Canadian Psychology*, 26, 82-95.

Persons, J. B. (1986). The advantages of studying psychological phenomena rather than psychiatric diagnoses. *American Psychologist*, 41, 1252–1260.

Peterson, D., Pere, L., Sheehan, N., & Surgenor, G., (2006). Experiences of mental health discrimination in New Zealand. *Health & Social Care in the Community*, 15/1, 18-25.

Pine, D.S., Mogg, K., Bradley, B.P., Montgomery, L., Monk, C.S., McClure, E., Guyer, A.E.,

- Ernst, M., Charney D.S., & Kaufman, J., (2005). Attention bias to threat in maltreated children: Implications for vulnerability fo stress-related psychopathology. *American Journal of Psychiatry*, 162/2, 291-296.
- Plutchik, R., (2000). *Emotions in the Practice of Psychotherapy: Clinical Implications of Affect Theory*. Washington DC, USA: American Psychological Association.
- Posner, M.I., & Peterson, S.E., (1990). The attention system of the human brain. *Annual Review of Neuroscience*, 13, 15-42.
- Posner, C.M., Wilson, K.G., Kral, M.J., Lander, S., & McIlwraith, R.D., (1992). Family in psychoeducational support groups in schizophrenia. *American Journal of Orthopsychiatry*, 62/2, 206-218.
- Pratt, S.I., Mueser, K.T., Smith, T.E., & Lu, W., (2005). Self-efficacy and psychosocial functioning in schizophrenia: A mediational analysis. *Schizophrenia Research*, 78, 187-197.
- Premkumar, P., Cooke, M.A., Fannon, D., Peters, E., Michel, T.M., Aasen, I., Murray, R.M., Kuipers, E., & Kumari, V., (2008). Misattribution bias of threat-related facial expressions is related to a longer duration of illness and poor executive function in schizophrenia and schizoaffective disorder. *European Psychiatry*, 23, 14-19.
- Raffa, S.D., Stoddard, J.A., White, K.S., Barlow, D.H., Gorman, J.M., Shear, K., & Woods, S.W., (2008). Relapse following combined treatment discontinuation in a placebo-controlled trial for panic disorder. *Journal of Nervous & Mental Disease*, 196/7, 548-555.
- Rapee, R.M., Brown, T.A., Antony, M.M., & Barlow, D.H., (1992). Response to

hyperventilation and inhalation of 5.5% carbon dioxide-enriched air across the DSM-III anxiety disorders. *Journal of Abnormal Psychology*, 101/3, 538-552.

Rasmussen, A., Rosenfeld, B., Reeves, K., & Keller, A.S., (2007). The Subjective experience of trauma and subsequent PTSD in a sample of undocumented immigrants. *The Journal of Nervous & Mental Disease*, 195/2, 137-143.

Rassin, E., Diepstraten, P., Merckelbach, H., & Muris, P., (2001). Thought-action fusion and thought suppression in obsessive-compulsive disorder. *Behaviour Research & Therapy*, 39/7, 757-764.

Read, J., Fink, P.J., Rudegeair, T., Felitti, V., & Whitfield, C.L., (2008). Child maltreatment and psychosis: A return to a genuinely integrated bio-psycho-social model. *Clinical Schizophrenia & Related Psychoses*, 2/3, 235-254.

Read, J., Mosher, L.R., & Bentall, R.P., (Eds. 2004). *Models of Madness: Psychological, Social and Biological Approaches to Schizophrenia*. New York: Routledge.

Read, J., Perry, B., Moskowitz, A., & Connolly, J., (2001). The contribution of early traumatic events to schizophrenia in some patients: A traumagenic neurodevelopmental model. *Psychiatry: Interpersonal & Biological Processes*, 64/4, 319-345.

Rector, N.A., Szacun-Schimizu, K., & Leybman, M., (2007). Anxiety sensitivity within the anxiety disorders: Disorder-specific sensitivities and depression comorbidity. *Behaviour Research & Therapy*, 45, 1967-1975.

Ree, M.J., & Craigie, M.A., (2007). Outcomes following mindfulness-based cognitive therapy in a heterogeneous sample of adult outpatients. *Behaviour Change*, 24/2, 70-86.

- Regier, D.A., Farmer, M.E., Myers, J.K., Kramer, M., Robins, L.N., George, L.K., Karno, M., & Locke, B.Z., (1993). One-month prevalence of mental disorders in the United States and sociodemographic characteristics: the Epidemiologic Catchment Area study. *Acta Psychiatrica Scandinavica*, 88/1, 35-47.
- Resick, P.A., (2001). Cognitive therapy for posttraumatic stress disorder. *Journal of Cognitive Psychotherapy*, 15/4, 321-329.
- Richards, J.C., Richardson, V., & Pier, C., (2002). The relative contributions of negative cognitions and self-efficacy to severity of panic attacks in panic disorder. *Behaviour Change*, 19/2, 102-111.
- Rinck, M., & Becker, E.S., (2006). Spider fearful individuals attend to threat, then quickly avoid it: Evidence from eye movements. *Journal of Abnormal Psychology*, 115/2, 231-238.
- Riskind, J.H., Castellon, C.S., & Beck, A.T., (1989). Spontaneous causal explanations in unipolar depression and generalized anxiety: Content analysis of dysfunctional-thought diaries. *Cognitive Therapy & Research*, 13/2, 97-108.
- Ritsner, M., Ben-Avi, I., Ponizovsky, A., Timinisky, I., Bistrov, E., & Modai, I., (2003). Quality of life and coping with schizophrenia symptoms. *Quality of Life Research*, 12, 1-9.
- Ritsner, M.S., Gibel, A., Ponizovsky, A.M., Shinkarenko, E., Ratner, Y., & Kurs, R., (2006). Coping patterns as a valid presentation of the diversity of coping responses in schizophrenia patients. *Psychiatry Research*, 144, 139-152.
- Roberge, P., Marchand, A., Reinharz, D., Cloutier, K., Mainguy, N., Miller, J., Begin, J., &

- Turcotte, J., (2005). Healthcare utilization following cognitive-behavioral treatment for panic disorder with agoraphobia. *Cognitive Behaviour Therapy*, 34/2, 79-88.
- Rodebaugh, T.L., (2006). Self-efficacy and social behaviour. *Behaviour Research & Therapy*, 44/12, 1831-1838.
- Roemer, L., & Orsillo, R.M., (2007). An open trial of an acceptance-based behavior therapy for generalized anxiety disorder. *Behavior Therapy*, 38, 72-85.
- Rohner, J., (2002). The time-course of visual threat processing: High trait-anxious individuals eventually avert their gaze from angry faces. *Cognition & Emotion*, 16/6, 837-844.
- Rosenberg, N.K., & Hougaard, E., (2004). Cognitive-behavioral group treatment of panic disorder and agoraphobia in a psychiatric setting: A naturalistic study of effectiveness. *Nordic Journal of Psychiatry*, 59, 198-204.
- Rosolack, T.K., & Hampson, S.E., (1991). A new typology of health behaviours for personality-health predictions: the case of locus of control. *European Journal of Personality*, 5, 151-168.
- Roy, A.K., Vasa, R.A., Bruck, M., Mogg, K., Bradley, B.P., Sweeney, M., Bergman, R.L., McLure-Tone, E.B., Pine D.S., & The CAMS Team, (2008). Attention bias towards threat in pediatric anxiety disorders. *Journal of the American Academy of Child & Adolescent Psychiatry*, 47/10, 1189-1196.
- Rubino, I.A., Nanni, R.C., Pozzi, D.M., & Siracusano, A., (2009). Early adverse experiences in schizophrenia and unipolar depression. *The Journal of Nervous & Mental Disease*, 197/1, 65-68.

- Rudolph, S.G., Flett, G.L., & Hewitt, P.L., (2007). Perfectionism and deficits in cognitive emotion regulation. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 25/4, 343-357.
- Rudnick, A., & Martins, J., (2009). Coping and schizophrenia: A re-analysis. *Archives of Psychiatric Nursing*, 23/1, 11-15.
- Rusch, N., Corrigan, P.W., Powell, K., Rajah, A., Olschewski, M., Wilkniss, S., & Batia, K., (2009). A stress-coping model of mental illness stigma: II. Emotional stress responses, coping behaviour and outcome. *Schizophrenia Research*, 110, 65-71.
- Salanova, M., Grau, R.M., & Martinez, I.M., (2006). Job demands and coping behaviour: The moderating role of professional self-efficacy. *Psychology in Spain*, 10, 1-7.
- Sanderson, W.C., & Wetzler, S., (1993). Observations on the cognitive behavioural treatment of panic disorder: Impact of benzodiazepines. *Psychotherapy*, 30/1, 125-132.
- Santanello, A.W., & Gardner, F.L., (2007). The role of experiential avoidance in the relationship between maladaptive perfectionism and worry. *Cognitive Therapy & Research*, 30/3, 319-331.
- Sartory, G., Heinen, R., Pundt, I., & Jhren, P., (2006). Predictors of behavioural avoidance in dental phobia: The role of gender, dysfunctional cognitions and the need for control. *Anxiety, Stress & Coping: An International Journal*, 19/3, 279-291.
- Savitz, J., van der Merwe, L., & Ramesar, R., (2008). Dysthymic and anxiety-related personality traits in bipolar spectrum illness. *Journal of Affective Disorders*, 109, 305-311.
- Scheier, M.F., & Carver, C.S., (1977). Self-focused attention and the experience of emotion:

Attraction, repulsion, elation and depression. *Journal of Personality & Social Psychology*, 35/9, 625-636.

Schmidt, N.B., Richey, J.A., Buckner, J.D., & Timpano, K.R., (2009). Attention training for generalised social anxiety disorder. *Journal of Abnormal Psychology*, 118/1, 5-14.

Schmidt, N.B., Santiago, H.T., & Wernicke, R., (2001). Evaluating the etiology of anxiety sensitivity: Relation to cardiovascular perception and reactivity. *Journal of Psychopathology & Behavioral Assessment*, 23/2, 85-92.

Schmitt, J.P., & Kurdek, L.A., (1984). Correlates of social anxiety in college students and homosexuals. *Journal of Projective Techniques & Personality Assessment*, 48/4, 403-409.

Schultz, L.T., & Heimberg, R.G., (2008). Attentional focus in social anxiety disorder: Potential for interactive processes. *Clinical psychology Review*, 28, 1206-1221.

Scott, K.M., McGee, M.A., Oakley Browne, M.A., & Wells, J.E., (2006a). Mental disorder comorbidity in Te Rau Hinengaro: The New Zealand Mental Health Survey. *Australian & New Zealand Journal of Psychiatry*, 40, 875-881.

Scott, K.M., Oakley Browne, M.A., McGee, M.A., & Wells, J.E., (2006b). Mental-physical comorbidity in Te Rau Hinengaro: The New Zealand Mental Health Survey. *Australian & New Zealand Journal of Psychiatry*, 40, 882-888.

Segee, P.F., Maguire, L., Ross, J., Malik, M.L., Colket, J., & Davidson, J.R.T., (1999). Demographics, treatment seeking and diagnoses of anxiety support group participants. *Journal of Anxiety Disorders*, 13/3, 315-334.

Shapiro, M.B., (1969). The measurement of clinically relevant variables. In Davidson, P.O.,

& Costello C.G., (Eds., 1969). *N=1: Experimental Studies of Single Cases* (175-187). New York: Van Nostrand Reinhold Company.

Sharp, D.M., Power, K.G., & Swanson, V., (2004). A comparison of the efficacy and acceptability of group versus individual cognitive behaviour therapy in the treatment of panic disorder and agoraphobia in primary care. *Clinical Psychology & Psychotherapy*, 11, 73-82.

Shaw, R.J., Dong, M., Lim, K.O., Faustman, W.O., Pouget, E.R., & Alpert, W., (1999). The relationship between affect expression and affect recognition in schizophrenia. *Schizophrenia Research*, 37, 245-250.

Shaw, R.J., Geurse, M.K., & Steiner, H., (2008). Defence mechanisms in schizophrenia, *Personality & Mental Health*, 1, 240-248.

Shell, D.F., & Husmann, J., (2008). Control, motivation, affect, and strategic self-regulation in the college classroom: A multidimensional phenomenon. *Journal of Educational Psychology*, 100/2, 443-459.

Shikai, N., Uji, M., Chen, Z., Hiramura, H., Tanaka, N., Shono, M., & Kitamura, T., (2007). The role of coping style and self-efficacy in the development of dysphoric mood among nursing Students. *Journal of Psychopathology & Behavioral Assessment*, 29/4, 241-248.

Siev, J., & Chambless, D.L., (2007). Specificity of treatment effects: Cognitive therapy and relaxation for generalized anxiety and panic disorders. *Journal of Consulting & Clinical Psychology*, 75/4, 513-522.

Silver, R.L., Boon, C., & Stones, M.H., (1983). Searching for meaning in misfortune: Making

sense of incest. *Journal of Social Issues*, 39, 81-102.

- Simon, N.M., Otto, M.W., Fischman, D., Racette, S., Nierenberg, A.A., Pollack, M.H., & Smoller, J.W., (2005). Panic disorder and bipolar disorder: Anxiety sensitivity as a potential mediator of panic during manic states. *Journal of Affective Disorders*, 87/1, 101-105.
- Simon, N.M., & Pollack, M.H., (2000). The current status of the treatment of panic disorder: Pharmacotherapy and cognitive-behavioral therapy. *Psychiatric Annals*, 30/11, 689-696.
- Simpson, B.H., Schneier, F.R., Campeas, R.B., Marshall, R.D., Fallon, B.A., Davies, S., Klein, D.F., & Leibowitz, M.R., (1998). Imipramine in the treatment of social phobia. *Journal of Clinical Psychopharmacology*, 18/2, 132-135.
- Skinner, B.F., (1938). *The Behaviour of Organisms: An Experimental Analysis*. New York: Appleton.
- Slade, P.D., (1974). The external control of auditory hallucinations: An information theory analysis. *British Journal of Clinical Psychology*, 13/1, 73-79.
- Smits, J.A.J., Minhajuddin, A., & Jarrett, R.B., (2009). Cognitive therapy for depressed adults with comorbid social phobia. *Journal of Affective Disorders*, 114, 271-278.
- Smits, J.A.J., Rosenfield, D., McDonald, R., & Telch, M.J., (2006). Cognitive mechanisms of social anxiety reduction: An examination of specificity and temporality. *Journal of Consulting & Clinical Psychology*, 74/6, 1023-1212.
- Souza, W.F., Figueira, I., Mendlowicz, M.V., Volchan, E., Mendonco-de-Souza, A.C., Duarte,

A.F.A., Monteiro da Silva, A.M., Marques-Portella, C., Mari, J.J., & Coutinho, E.S.F., (2008). Negative affect predicts posttraumatic stress symptoms in Brazilian volunteer United Nations peacekeepers in Haiti. *The Journal of Nervous & Mental Disease*, 196/11, 852-855.

Spangler, D.L., Simons, A.D., Munroe, S.M., & Thase, M.E., (1997). Comparison of cognitive models of depression: Relationships between cognitive constructs and cognitive diathesis-stress match. *Journal of Abnormal Psychology*, 106/3, 395-403.

Speckens, A.E.M., Ehlers, A., Hackmann, A., Ruths, F.A., & Clark., D.M., (2007). Intrusive memories and rumination in patients with post-traumatic stress disorder: A phenomenological comparison. *Memory*, 15/3, 249-257.

Sposari, J.A., & Rapee, R.M., (2007). Attentional bias toward facial stimuli under conditions of social threat in socially phobic and nonclinical participants. *Cognitive Therapy & Research*, 31/3, 23-37.

Sroufe, L.A., (1995). *Emotional Development: The Organisation of Emotional Life in the Early Years*. United Kingdom: Cambridge University Press.

Stein, D.J., Wessels, C., Zungu-Dirwayi, N., Berk, M., & Wilson, Z., (2001). Value and effectiveness of consumer advocacy groups: A survey of The Anxiety Disorders Support Group in South Africa. *Depression & Anxiety*, 13, 105-107.

Storch, E.A., Geffken, G.R., Merlo, L.J., Mann, G., Duke, D., Munson, M., Adkins, J., Grabill, K.M., Murphy, T.K., & Goodman, W.K., (2007). Family-based cognitive behavioral therapy for pediatric obsessive-compulsive disorder: Comparison of intensive and

weekly approaches. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46/4, 469-478.

Strauss, G.P., Allen, D.N., Duke, L.A., Ross, S.A., & Schwartz, J., (2008). Automatic affective processing impairments in patients with deficit syndrome schizophrenia. *Schizophrenia Research*, 102, 76-87.

Strous, R.D., Ratner, Y., Gibel, A., Ponizovsky, A., & Ritsner, M., (2005). Longitudinal assessment of coping abilities at exacerbation and stabilization in schizophrenia. *Comprehensive Psychiatry*, 46, 167-175.

Stuart, G.L., Treat, T.A., & Wade, W.A. (2000). Effectiveness of an empirically based treatment for panic disorder delivered in a service clinic setting: 1 year follow-up. *Journal of Consulting & Clinical Psychology*, 68/3, 506-512.

Szoke, A., Schurhoff, F., Ferhadian, N., Bellivier, F., Rouillon, F., & Leboyer, M., (2002). Temperament in schizophrenia: A study of the tridimensional personality questionnaire (TPQ). *European Psychiatry*, 17, 379-383.

Takaki, J., Nishi, T., Shimoyama, H., Inada, T., Matsuyama, N., Kumano, H., & Kuboki, T., (2003). Interactions among a stressor, self-efficacy, coping with stress, depression, and anxiety in the maintenance of hemodialysis patients. *Behavioral Medicine*, 29/3, 107-112.

Taylor, S., & Clark, D.A., (2009). Transdiagnostic cognitive-behavioral treatments for mood and anxiety disorders: Introduction to the special issue. *Journal of Cognitive Psychotherapy*, 23/1, 3-4.

Taylor, S., Pham, L., Rivkin, I., & Armor, D.A., (1998). Harnessing the imagination: Mental

- simulation, self-regulation, and coping. *American Psychologist*, 53/4, 429-439
- Teachman, B.A., Smith-Janik, S.B., & Saporito, J., (2007). Information processing biases and panic disorder: Relationships among cognitive and symptom measures. *Behaviour Research & Therapy*, 45/8, 1791-1811.
- Teglasi, H., & Fagin, S.S., (1984). Social anxiety and self-other biases in causal attribution. *Journal of Research in Personality*. 18, 64-80.
- Tellegen, A., (1982). Brief manual for the differential personality questionnaire. Unpublished Manuscript, University of Minnesota, Minneapolis. In Watson, D., Clark, L.A., & Carey, G., (1988). Positive and negative affectivity and their relation to anxiety and depressive disorders. *Journal of Abnormal Psychology*, 97/3, 346-353.
- Tice, D.M., & Masicampo, E.J., (2008). Approach and avoidance motivations in the self-concept and self-esteem. In Elliot, A.J., (Ed., 505-519). *Handbook of Approach and Avoidance Motivation*. New York: Psychology Press, Taylor & Francis Group.
- Toomey, R., Faraone, S.V., Simpson, C.J., & Tsuang, M.T., (1998). Negative, positive and disorganized symptom dimensions in schizophrenia, major depression and bipolar disorder. *Journal of Nervous & Mental Disease*, 186/8, 470-476.
- Tracy, A., Bauwens, F., Martin, F., Pardoën, D., & Mendlewicz, J., (1992). Attributional style and depression: A controlled comparison with remitted unipolar and bipolar patients. *British Journal of Clinical Psychology*, 31/1, 83-84.
- 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. *Anxiety Disorders*, 22, 199-210.

Tull, M.T., Gratz, K.L., Salters, K., & Roemer, L., (2004). The Role of experiential avoidance in posttraumatic stress symptoms and symptoms of depression, anxiety and somatization. *The Journal of Nervous & Mental Disease*, 192/11, 754-761.

Turk, C.L., Heimburg, R.G., Luterek, J.A., Mennin, D.S., & Fresco, D.M., (2005). Emotion dysregulation in generalised anxiety disorder: A comparison with social anxiety disorder. *Journal of Cognitive Therapy & Research*, 29/1, 89-106.

Turner, S.M., Beidel, D.C., Borden, J.W., Stanley, M.A., & Jacob, R.G., (1991). Social phobia: Axis I and II correlates. *Journal of Abnormal Psychology*, 100/1, 102-106.

Tynes, L.L., Salins, C., Skiba, W., & Winstead, D.K., (1992). A psychoeducational and support group for obsessive-compulsive disorder patients and their significant others. *Comprehensive Psychology*, 33/3, 197-201.

Udachina, A., Thewissen, V., Myin-Germeys, I., Fitzpatrick, S., Kane, A., & Bentall, R.P., (2009). Understanding the relationship between self-esteem, experiential avoidance and paranoia: Structural modelling and experience sampling studies. *Journal of Nervous & Mental Disease*, 197, 661-668.

Valmaggia, L.R., Boumann, T.K., & Schuurman, L., (2007). Attention training with auditory hallucinations: A case study. *Cognitive & Behavioral Practice*, 14, 127-133.

Van der Gucht, E., Morriss, R., Lancaster, G., Kinderman, P., & Bentall, R.P., (2009).

- Psychological processes in bipolar affective disorder: negative cognitive style and reward processing. *The British Journal of Psychiatry*, 194, 146-151.
- Van der Molen, G.M., Van den Hout, M.A., & Halfens, R., (1988). Agoraphobia and locus of control. *Journal of Psychopathology & Behavioral Assessment*, 10/3, 269-275.
- Van Noppen, B., (2002). Multifamily behavioral treatment (MFBT) for obsessive compulsive disorder (OCD): A step-by-step model. *Brief Treatment & Crisis Intervention*, 2, 107-122.
- van Os, J., Gilvarry, C., Bale, R., Van Horn, E., Tattan, T., White, I., & Murray, R., (1999). A comparison of the utility of dimensional and categorical representations of psychosis. *Psychological Medicine*, 29/3, 595-606.
- Vassilopoulos, S.P., (2006). Interpretation and judgmental biases in socially anxious and non-anxious individuals. *Behavioural & Cognitive Psychotherapy*, 34, 243-254.
- Vassilopoulos, S.P., & Bannerjee, R., (2008). Interpretations and judgments regarding positive and negative social situations in childhood social anxiety. *Behaviour Research & Therapy*, 46, 870-876.
- Vega, W.A., Kolody, B., Aguilar-Gaxiola, S., Alderete, E., Catalano, R., & Caraveo-Anduaga, J., (1998). Lifetime prevalence of DSM-III-R psychiatric disorders among urban and rural Mexican Americans in California. *Archives of General Psychiatry*, 55, 771-778.
- Ventura, J., Nuechterlein, K.H., Subotnik, K.L., Green, M.F., & Gitlin, M.J., (2004). Self-efficacy and neurocognition may be related to coping responses in recent-onset schizophrenia. *Schizophrenia Research*, 69, 343-352.

- Vera-Villarroel, P.E., & Buela-Casal, G., (2000). Relationships between anxiety and attributional style. *Revista Mexicana de Psicología*, 17/2, 137-142.
- Viana, A.G., & Rabian, B., (2008). Perceived Attachment: Relations to anxiety sensitivity, worry and GAD symptoms. *Behaviour Research & Therapy*, 46/6, 737-747.
- Wade, T.D., Bergin, J.L., Martin, N.G., Gillespie, N.A., & Fairburn, C.G., (2006). A transdiagnostic approach to understanding eating disorders. *The Journal of Nervous & Mental Disease*, 194/7, 510-517.
- Waghorn, G., & Chant, D., (2006). Work performance among Australians with depression and anxiety disorders. *The Journal of Nervous & Mental Disease*, 194/12, 898-904.
- Wald J., & Taylor, S. (2005). Interoceptive exposure therapy combined with trauma-related exposure therapy for post-traumatic stress disorders: A case report. *Cognitive Behaviour Therapy*, 34/1, 34-40.
- Wald, J., & Taylor, S., (2008). Responses to interoceptive exposure in people with post-traumatic stress disorder (PTSD): A preliminary analysis of induced anxiety reactions and trauma memories and their relationship to anxiety sensitivity and PTSD symptom severity. *Cognitive Behaviour Therapy*, 37/2, 90-100.
- Wang, P.S., Anguilar-Gaxiola, S., Alonso, J., Angermeyer, M.C., Bromet, E.J., Bruffaerts, R., de Giolamo, G., de Graaf, R., Haro, J.M., Karam, Gureje, O., Kessler, R.C., Kovess, V., Lane, M.C., Lee, S., Levinson, D., Ono, Y., Petukhova, M., Posoda-Villa, J., Seedat, S., & Wells, J.E., (2007). Use of mental health services for anxiety, mood, and substance

disorders in 17 countries in the WHO world mental health surveys. *The Lancet*, 370, 841-850.

Wang, P.S., Lane, M., Olfson, M., Pincus, H.A., Wells, K.B., & Kessler, R.C., (2005). Twelve-month use of mental health services in the United States: Results from the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 629-640.

Wardle, J., (1990). Behaviour therapy and benzodiazepines: Allies or antagonists? *British Journal of Psychiatry*, 156, 163-168.

Waters, A.M., Mogg, K., Bradley B.P., & Pine, D.S., (2008). Attentional bias for emotional faces in children with generalised anxiety disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 47/4, 435 – 442.

Watkins, E. R. (2008). Constructive and unconstructive repetitive thought. *Psychological Bulletin*, 134, 163–206.

Watson, D., Clark, L.A., Weber, K., Smith Assenheimer, J., Strauss, M.E., & McCormick, R.A., (1995). Testing a tripartite model: II. Exploring the symptom structure of anxiety and depression in student, adult, and patient samples. *Journal of Abnormal Psychology*, 104/1, 15-25.

Watson, D., Clark, L.A., & Carey, G., (1988). Positive and negative affectivity and their relation to anxiety and depressive disorders. *Journal of Abnormal Psychology*, 97/3, 346-353.

Wegner, D.M., Erber, R., & Zanakos, S., (1993). Ironic processes in the mental control of

mood and mood-related thought. *Journal of Personality & Social Psychology*, 65/6, 1093-1104.

Wegner, D.M., Schneider, D.J., Carter III, S.R. & White, T.L., (1987). Paradoxical effects of thought suppression. *Journal of Personality & Social Psychology*, 53/1, 5-13.

Wei, M., Mallinckrodt, B., Russell, D.W., & Abraham, W.T., (2004). Maladaptive perfectionism as a mediator and moderator between adult attachment and depressive mood. *Journal of Counselling Psychology*, 51/2, 201-212.

Wells, A., (1990). Panic disorder in association with relaxation induced anxiety: An attentional training approach to treatment. *Behavior Therapy*, 21, 273-280.

Wells, A., (1995). Meta-cognition and worry: A cognitive model of generalized anxiety disorder. *Behavioural & Cognitive Psychotherapy*, 23/3, 301-320.

Wells, A., (2007). The attention training technique: Theory, effects, and a metacognitive hypothesis on auditory hallucinations. *Cognitive & Behavioural Practice*, 14, 134-138.

Wells, A., & King, P., (2006). Metacognitive therapy for generalized anxiety disorder: An open trial. *Journal of Behavior Therapy & Experimental psychiatry*, 37, 206-212.

Wells, A., White, J., & Carter, K., (1997). Attention training: Effects on anxiety and beliefs in panic and social phobia. *Clinical Psychology & Psychotherapy*, 4/4, 226-232.

Wells, J.E., Bushnell, J.A., Hornblow, A.R., Joyce, P.R., & Oakley-Browne, M.A., (1989). Christchurch psychiatric epidemiology study, Part I: Methodology and lifetime prevalence for specific psychiatric disorders. *Australian & New Zealand Journal of Psychiatry*, 23, 315-326.

- Wells, J.E., Oakley Browne, M.A., Scott, K.M., McGee, M.A., Baxter, J., & Kokaua, J., (2006a).
Te Rau Hinengaro: The New Zealand mental health survey: Overview of methods and
findings. *Australian & New Zealand Journal of Psychiatry*, 40, 835-844.
- Wells, J.E., Oakley Browne, M.A., Scott, K.M., McGee, M.A., Baxter, J., & Kokaua, J., (2006b).
Prevalence, interference with life and severity of 12 month DSM-IV disorders in Te
Rau Hinengaro: The New Zealand mental health survey. *Australian & New Zealand
Journal of Psychiatry*, 40, 845-854.
- Wetherall, J.L., Gatz, M., & Craske, M.G., (2003). Treatment of generalized anxiety disorder
in older adults. *Journal of Consulting & Clinical Psychology*, 71/1, 31-40.
- Whittal, M.L., Robichaud, M., Thordarson, D.S., & McLean, P.D., (2008). Group and
individual treatment of obsessive-compulsive disorder using cognitive therapy and
exposure plus response prevention: A 2-year follow-up of two randomized trials.
Journal of Consulting & Clinical Psychology, 76/6, 1003-1014.
- Wild, J., Clark, D.M., Ehlers, A., & McManus, F., (2008). Perception of arousal in social
anxiety: Effects of false feedback during social interaction. *Journal of Behavior Therapy &
Experimental Psychiatry*, 39/2, 102-116.
- Wilder-Willis, K.E., Shear, P.K., Steffen, J.J., & Borkin, J., (2002). The relationship between
cognitive dysfunction and coping abilities in schizophrenia. *Schizophrenia Research*, 55,
259-267.
- Williams, E., (1974). An analysis of gaze in schizophrenics. *British Journal of Clinical
Psychology*, 13/1, 1-8.

- Wilson, K.A., & Hayward, C., (2006). Unique contributions of anxiety sensitivity to avoidance: A prospective study in adolescents. *Behaviour Research & Therapy*, 44, 601-609.
- Winokur, G., Monahan, P., Coryell, W., & Zimmerman, M., (1996). Schizophrenia and affective disorder – Distinct entities or continuum?: An analysis based on a prospective 6-year follow-up. *Comprehensive Psychiatry*, 37/2, 77-87.
- Wolitzky-Taylor, K.B., Horowitz, J.D., Powers, M.B., & Telch, M.J., (2008). Psychological approaches in the treatment of specific phobias: A meta-analysis. *Clinical Psychology Review*, 28, 1021-1037.
- Wolpe, J., (1952). Experimental neuroses as learned behaviour. *British Journal of Psychology*, 43/4, 243-268.
- Wolpe, J., (1996). Pavlov: Two views: When Pavlov forsook conditioning. *PsycCRITIQUES*, 41/2, 103-104.
- Wolpe, J., (1987a). Destigmatization of behavior therapy. *American Psychologist*, 100-101
- Wolpe, J., (1987b). Carbon dioxide inhalation treatments of neurotic anxiety. *Journal of Nervous & Mental Disease*, 175/3, 129-133.
- Wolpe, J., (1997). Thirty years of behavior therapy. *Behavior Therapy*, 28, 633-635.
- Wu, T., & Wei, M., (2008). Perfectionism and negative mood: The mediating roles of validation from others versus self. *Journal of Counselling Psychology*, 55/2, 276-288.
- Xiang, Y., Ma, X., Cai, Z., Li, S., Xiang, Y., Guo, H., Hou, Y., Li, Z., Li, Z., Tao, Y., Dang, W.,

- Wu, X., Deng, J., Lai, K.Y.C., & Ungari, G.S., (2008). Prevalence and socio-demographic correlates of schizophrenia in Beijing, China. *Schizophrenia Research*, 102, 270-277.
- Youngstrom, E., & Izard, C.E., (2008). Functions of emotions and emotion-related dysfunction. In Elliot, A.J., (Ed., 267-384). *Handbook of Approach and Avoidance Motivation*. New York: Psychology Press, Taylor & Francis Group.
- Zimmerman, M., McDermut, W., & Mattia, J.I., (2000). Frequency of anxiety disorders in psychiatric outpatients with major depressive disorder. *American Journal of Psychiatry*, 157/8, 1337-1340.
- Zinnur Kilic, E., Kilic, C., & Yilmaz, S., (2008). Is anxiety sensitivity a predictor of PTSD in children and adolescents. *Journal of Psychosomatic Research*, 65/1, 81-86.
- Zirpoli, G.G., (2000). *A Comparison of the Attributional Styles and Task Attributions of Unipolar versus Bipolar Depressed People*. Unpublished Doctoral thesis, California School of Professional Psychology, San Diego, 230 pages, UMI 3000746.
- Zvolensky, M.J., Mullen, K., Lejuez, C.W., & McNeil, D.W., (1999). Anxiety disorder support groups within university training centres: Utility and implementation strategies. *The Behavior Therapist*, 22/3, 50-52.
- Zlotnick, C., Warshaw, M., Shea, M.T., & Keller, M.B., (1997). Trauma and chronic depression among patients with anxiety disorders. *Journal of Consulting Psychology*, 65/2, 333-336.