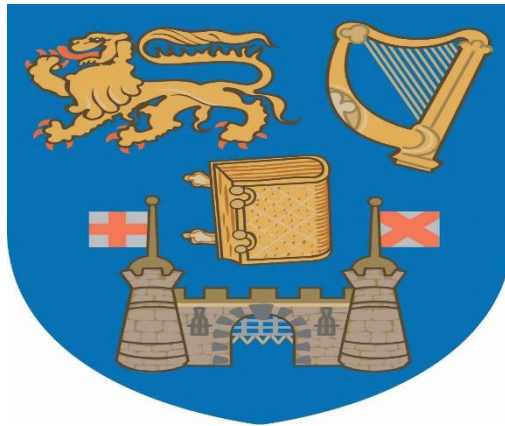


An evaluation of the clinical effectiveness of a group based cognitive behavioural
treatment for individuals with social anxiety disorder and an exploration of the moderators
& mediators that influence treatment outcomes



A thesis submitted to

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Odhran Mc Carthy

School of Psychology

The University of Dublin, Trinity College

2019

Declaration

I declare that this thesis has not been submitted as an exercise for a degree at this, or any other university and is entirely my own work.

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Summary

Chapter one describes the development of social anxiety as a psychological difficulty. It reviews the many issues around the diagnostic criteria for social anxiety, the arguments for diagnostic subtypes and the continued struggle for consensus. Global prevalence rates are examined, and the many discrepancies in reported rates are scrutinized. It also looks at social anxiety as a common lifelong disorder associated with significant comorbidity and serious social, occupational and educational impairments. Finally, it assesses the personal functional impact and the societal financial burden that social anxiety creates and thus argues for the need for effective therapeutic intervention. It concludes that the need for better public awareness, reduced stigma and early intervention is paramount.

Chapter two examines the various psychological theories that seek to explain the aetiology and maintenance of social anxiety. It also considers the various therapeutic models that guide specific intervention, with special attention given to CBT as this was the approach that informed the interventions that are employed in both studies. The pros and cons of using CBT in a group or individual format is evaluated. The weight of research findings indicates that the Clark and Wells' (1995) individual CBT model, is the most effective treatment for social anxiety. However, the possibility of successfully adopting this approach to a group format while maintaining therapeutic gains is deemed desirable. The evidence base for the various psychotherapeutic approaches is also reviewed. All effective interventions incorporate some form of behavioural exposure into their programmes.

Chapter three looked at the findings of the preliminary retrospective Irish effectiveness study, that adapted the Clark and Wells' (1995) model into a group setting and delivered the intervention in a hospital based mental health setting. CBGT for social anxiety was associated with good clinical outcomes and a high level of client acceptability. Despite this, a significant number did not attain clinically significant change from their participation.

Chapter four explores several potential moderators (anger, alexithymia and fear of positive evaluation) and mediators (shame and safety behaviours) that maybe responsible for impeding and facilitating therapeutic progress respectively, by participants in a Clark And Wells' (1995) based CBGT programme.

Chapter five detailed the main hypothesis and secondary research questions of the primary study. It is hypothesised that CBGT for SAD based on Clark and Wells' (1995) model is effective in a community mental health setting. It is also hypothesised that, trait anger, alexithymia and fear of positive evaluation would have negative moderating effects of on all outcome measures, and that internal shame and safety behaviours would have a mediating role in the outcome of a group-based CBT intervention for SAD. Chapter six outlines the research methodology that was be employed to address the primary studies research hypotheses. Chapter seven examines the results. The hypothesis that CBGT for SAD would be effective was supported. The hypothesis that trait anger, alexithymia and FPE would have negative moderating effects was largely not supported. Finally, the hypothesis that internal shame and safety behaviours would have a mediating role in CBGT for SAD outcome was confirmed.

Chapter eight discusses the implications of the findings of both studies. Chapter nine integrates the findings of the of the dissertation as a whole and examine both the theoretical and clinical implications. The limitations of the thesis are identified, and future research directions suggested. Finally, the conclusions of the thesis are presented.

Abstract

Relatively few studies on social anxiety disorder have addressed the issue of moderators and mediators of treatment outcome. This thesis had several aims. The first was to evaluate the effectiveness of an Irish community-based CBGT intervention, based on Clark and Wells' (1995) model, in reducing symptoms and problem areas associated with SAD. The second aim had two elements. The first element was to evaluate the potential moderating influence of trait anger, alexithymia and fear of positive evaluation on the therapeutic progress made by participants attending a CBGT for SAD programme. The second element was to explore the potential mediating role of safety behaviours and internal shame in terms of social anxiety outcome measures in the same programme. A randomized control designed was used to assess changes in standardized psychological measures of social anxiety. Outcome effectiveness was analysed using the General Linear Model - repeated measures design via ITT analysis. The impact of moderator and mediator variables was determined using a series of regression models by means of the PROCESS macros for SPSS. Large treatment effects sizes at post-intervention were achieved on all outcome measures following CBGT for SAD. Trait anger, alexithymia and fear of positive evaluation demonstrated no moderating effects on any of the outcome measures, with a few exceptions. Robust significant mediating effects on all outcome measure were detected for internal shame and safety behaviours. CBGT is an effective intervention in the long-term in a routine clinical setting and should be considered a viable treatment option for SAD. Individual CBT can be translated successfully into a group format for social anxiety. Internal shame and safety behaviours play a significant mediating role in CBGT outcomes. Recommendations for future research, treatment implications and study limitations are considered.

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For my children, Beibhinn, Rioghan, Caolbhadh and Eanna, sorry for being even grumpier than normal whilst I wrote this thesis.

Publications arising from this work

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List of Abbreviations (alphabetised)

ADIS	Anxiety Disorder Interview Schedule
AC-O	Anger Control - Out
AC-I	Anger Control - In
ACT	Acceptance and Commitment Therapy
AE-I	Anger Expression Index
AIM	Active Impression Management
APA	American Psychiatric Association
AX-O	Anger Expression Out
AX-I	Anger Expression In
BAI	Beck Anxiety Inventory
BDD	Body Dysmorphic Disorder
BDI-II	Beck Depression Inventory – 2 nd Edition
BFNE	Brief Fear of Negative Evaluation scale
BFNE-R	Brief Fear of Negative Evaluation scale - Revised
BSPS	Brief Social Phobia Scale
CBGT	Cognitive Behavioural Group Therapy
CBT	Cognitive Behavioural Therapy
CIDI	Composite International Diagnostic Interview
CT	Cognitive Therapy
CSC	Clinically Significant Change
DIF	Difficulty Identifying Feelings
DDF	Difficulty Describing Feelings
DSM	Diagnostic and Statistical Manual of Mental Disorders
EOT	External Oriented Thinking
ESS	Experience of Shame Scale
ERP	Exposure and Response Prevention
FPE	Fear of Positive Evaluation
FPES	Fear of Positive Evaluation Scale
FNE	Fear of Negative Evaluation
FNE-R	Fear of Negative Evaluation Scale-Revised
GAD	General Anxiety Disorder
HSP	Highly Sensitive Person
IAPT	Improving Access to Psychological Therapies
IB	Inhibiting Behaviours
iCBT	Internet Cognitive Behaviour Therapy
ICD-10	International Classification of Diseases - 10 th edition
IE	Impression Efficacy

IM	Impression Motivation
IPT	Interpersonal Therapy
ISS	Internalized Shame Scale
LSAS	Liebowitz Social Anxiety Scale
LSAS-CA	Liebowitz Social Anxiety Scale – Clinician Administered
LSAS-SR	Liebowitz Social Anxiety Scale – Self Report
MAGT	Mindfulness and Acceptance-Based Group Therapy
MBSR	Mindfulness Based Stress Reduction
MDD	Major Depressive Disorder
MPS	Managing Physical Symptoms
NCS	National Comorbidity Study
NICE	National Institute for Clinical Excellence
NIH	National Institutes of Health
OCD	Obsessive Compulsive Disorder
PHQ-9	Patient Health Questionnaire-9
PTSD	Post-Traumatic Stress Disorder
RCI	Reliable Change Index
RRS	Ruminative Responses Scale
SAD	Social Anxiety Disorder
RCT	Randomized Control Trial
SAFE	Subtle Avoidance Frequency Examination paragraph
SAI	Social Anxiety Ireland
SBQ	Safety Behaviours Questionnaire
SCID-1	Structured Clinical Interview for DSM–IV Axis I
SCID-11	Structured Clinical Interview for DSM-IV Personality Disorders
SCQ	Social Cognitions Questionnaire
SDS	Sheehan Disability Scales
SES	Social Economic Status
SET	Social Effectiveness Therapy
SIAS	Social Interaction Anxiety Scale
SLT	Social Learning Theory
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
SPIN	Social Phobia Inventory
SPS	Social Phobia Scale
SPWSS	Social Phobia Weekly Summary Scale
SSPP	Short-term Psychodynamic Psychotherapy
SST	Social Skills Training
STAXI	State Trait Anger Inventory
STAXI-II	State Trait Anger Inventory-2 nd Edition

T-Ang/T	Trait - Anger Temperament T-Ang
T-Ang/R	Trait – Anger Reaction
TAS-20	Toronto Alexithymia Scale TAS-20
WHO	World Health Organization
WSAS	Work and Social Adjustment Scale

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‘Through bashfulness, suspicion and timorousness, will not be seen abroad, ... He dares not come in company, for fear he should be misused, disgraced, overshoot himself in gestures or speeches, or be sick; he thinks every man observes him...’ Hippocratic De insaniam et melancholiam 460-375BC (as cited in Marks, 1975)

Chapter 1: An Introduction to Social Anxiety Disorder

1.1 Introduction

This chapter describes the development of the concept of social anxiety as a psychological difficulty. It reviews the many issues around the diagnostic criteria for social anxiety, the arguments for diagnostic subtypes and the continued struggle for consensus. Global prevalence rates are then examined, and the many discrepancies in reported rates are scrutinized. It also looks at co-morbidity and the impact this has on prognosis. Finally, it assesses the personal functional impact and the societal financial burden that social anxiety creates and thus argues for the need for effective therapeutic intervention.

1.2 Social Anxiety Disorder – Definition

The term ‘Social Phobia’ was first coined by Janet in 1903 who considered it a form of simple phobia. It was not until the 1960s that it was proposed that social phobia should be considered a distinct category separate from other simple phobias (Marks & Gelder, 1966). In the first and second editions of the Diagnostic and Statistical Manual of Mental Disorders (DSM), social fears were categorised with other anxiety disorders and, reflecting the prominence of psychodynamic thinking at the time, were viewed as projections of underlying conflicts onto social situations (Crozier & Alden, 2001); social anxiety was not considered a diagnosable condition. This had ramifications for the development of psychological treatments, which will be explored further in Chapter 2. It was not until the publication of DSM-III in 1980, that the separate diagnoses of social phobia and avoidant

personality disorder finally appeared (American Psychiatric Association (APA), 1980). In the DSM-III social phobia was narrowly defined, with just four social situations acknowledged: “speaking or performing in public, using public lavatories, eating in public, and writing in the presence of others” (APA, 1980, p. 324). In contrast, a diagnosis of avoidant personality disorder was made when there was evidence of a pervasive pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation; the diagnosis of social phobia was made only if avoidant personality disorder could be excluded and they were viewed as distinct diagnostic categories. Strongly influenced by the work of Theodore Millon’s biosocial learning theory (1969) avoidant personality disorder described a behaviour pattern resulting from an anxious child being subjected to persistent experiences of depreciation, which in turn resulted in an *active-detached* coping style. However, the arrival of the DSM-III marked a distinct move away from considering the underlying formulation of mental disorders, given the uncertainty and debate surrounding the etiological bases of psychopathology of the first two editions (Kawa & Giordano, 2012).

In retrospect, as research into the area expanded and our subsequent understanding improved, the DSM-III diagnostic criteria for social anxiety were very narrow: a circumscribed phobic reaction to discrete social situations. These limited criteria had clear implications for studies examining prevalence rates. The criteria were further amended in the edition of DSM-III-R published in 1987 and a new subtype of social phobia (“generalised” social phobia) was added to the category, which was applied to individuals for whom “the phobic situation includes most social situations” (APA, 1987, p. 243). With this revision, avoidant personality was dropped as an exclusion criterion and could now exist as a comorbid diagnosis. Since this generalised subtype of social phobia was described as having a chronic course with onset in late childhood or early adolescence, the distinction between it and avoidant personality disorder became increasingly blurred.

Rather than clarify the distinction between these two disorders, the publication of DSM-IV (APA, 1994) further revised the criteria for generalised social anxiety in a manner that suggested even greater overlap with avoidant personality disorder. For example, the DSM-III-R diagnostic criterion "...is reticent in social situations because of a fear of saying something inappropriate or foolish, or of being unable to answer a question" (APA, 1987, p. 353) was replaced with "...is inhibited in new interpersonal situations because of feelings of inadequacy" (APA, 1994, p. 665). Greater emphasis was given in the DSM-IV to underlying and enduring personality factors that contributed to social anxiety, e.g., the persistent negative image of self as "socially inept, personally unappealing, or inferior to others" (APA, 1994, p.665) that led to "frequently lifelong" (APA, 1994, p.414) social phobia. To reflect this revised conception of social phobia as an enduring pervasive difficulty, rather than an irrational fear of some specific activity or situation, the preferred term "social anxiety disorder" (SAD) was introduced (APA, 1994, p. 411).

The criteria for SAD have been revised yet again with the publication of the DSM-V (APA, 2013). According to the DSM-V, SAD is characterised by "a marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others" (APA, 2013, p. 202). Individuals with SAD are essentially overly concerned that they will act in a socially inept way or exhibit inappropriate symptoms of anxiety that will result in negative evaluation, which may then result in rejection or be experienced as offensive by others (APA, 2013, p. 202). Feared situations included: being observed (e.g., eating), formal social situations (e.g., public speaking), and/or informal social interactions (e.g., small talk with acquaintances). These social situations are typically avoided where possible or endured with significant distress. While all people may find these kinds of social encounters difficult from time to time, a diagnosis of SAD is given when these fears significantly and consistently hinder a person's social or occupational functioning. This is quite different from adaptive social anxiety, which itself has an important function of alerting

people to signs of social threat (Maner, 2009), therefore hindering their social responses and avoiding any disagreeable social interactions until one has a better sense of the social expectations (Maner & Kenrick, 2010). Prior to the publication of the DSM-V (APA, 2013) distinguishing this disorder from normal anxiety was based on the individual's awareness of their response as excessive or unreasonable (DSM-IV, 1994) and accompanied by an inability to regulate their distress (Klein, 1999). While the DSM-V has maintained this criteria it has shifted the final diagnostic judgement to the clinician (Heimberg et al., 2014). Individuals with SAD find their social circles becoming increasingly restricted because of repeated social avoidance, and career and romantic opportunities often suffer due to the increased social exposure involved. The array of normal social events that are avoided or merely endured can be extensive ranging from the complex, e.g., attendance at large family celebrations (e.g., weddings, communions), to the simple, e.g., cutting the garden hedges for fear of meeting a neighbour.

1.2.1 Social anxiety disorder – subtypes. Efforts have been made to describe numerous subtypes of SAD using the number of social situations effected (generalized, non-generalized, and discrete) (Heimberg, Holt, Schneier, Spitzer, & Liebowitz, 1993). Generalized SAD was defined as fear of a broad range of social or performance situations, non-generalized SAD as the fear of only two or three social or performance situations, while discrete SAD the fear of a single social or performance situation. While the earlier DSM-IV (APA, 1994) did support the concept of a generalized subtype of SAD, the lack of evidence to support this has resulted in the DSM-V shifting its position to a view of social anxiety as existing on a continuum, from lesser to greater severity as a function of the number of feared and/or avoided social situations (Bögels et al., 2010).

1.3 Social Anxiety Disorder – Prevalence Rates

Studies to date, aiming to provide accurate prevalence for social anxiety, have been hindered by numerous methodical issues. Differences in sampling methods, sample sizes, the age ranges employed, and methods and criteria associated with assessment, have all influenced reported prevalence rates. For example, Wacker, Müllejans, Klein, and Battegay (1992) employed an age range of 16-64 years in their Swiss study and found a 16% prevalence rate, while Rabe-Jablonska, Dietrick-Muszalska and Gmitrowicz (2004) used the age range 14-20 in their Polish study with an overall prevalence rate of 24%. Consequently, different countries have produced studies that report markedly different prevalence rates (Fehm, Pelissolo, Furmark, & Wittchen, 2005) ranging from 0.4% in rural Taiwan to 24% in Poland (Hwu, Yeh, & Chang, 1989; Rabe-Jabłońska et al., 2004; Wacker et al., 1992). Lower rates are typically found in non-Western countries suggesting that cultural issues may be important (Mohammadi, Ghanizadeh, Mohammadi, & Mesgarpour, 2006; Stein & Stein, 2008). This has proved problematic as prevalence studies afford essential information for assessing the impact of a disorder and the service needs that exist as a result.

However, the primary cause of difference in European and US studies over the past 30 years may have been the shifting criteria associated with the numerous DSM revisions used for diagnosis (Furmark, 2002; Péliissolo, André, Moutard-Martin, Wittchen, & Lépine, 2000). Since its introduction to the DSM-III in 1980, the criteria for SAD have broadened with successive issues of the DSM (APA, 1987, 1994, 2000). This has affected the prevalence rates found in studies, particularly due to criteria around levels of distress caused and definition of impairment (Fehm et al., 2005). In older studies, where the DSM-III conditions for diagnosis were used, SAD had a very limited scope and participants exhibiting avoidant personality disorder were excluded from a diagnosis of SAD (APA, 1980). Using DSM-III criteria, a lifetime prevalence of 2-3% was found in a large USA sample (Bourdon

et al., 1988). Studies using DSM-III-R and DSM-IV report higher rates of prevalence in their samples as these versions of the DSM treat SAD as a broader disorder including an overlap with avoidant personality disorder and the generalised subtype of SAD (Fehm et al., 2005). For example, in a large meticulous American National Comorbidity Study (NCS), utilizing the DSM-IV, involving over 8000 respondents, a lifetime prevalence of 13.3% was reported. This ranked social SAD the third most common mental health difficulty in the United States, after major depression (17%) and alcohol dependence (14%) (Kessler et al., 1994). Lifetime prevalence rates of SAD in Western countries range between 7% and 12% (Furmark, 2002; Kessler et al., 2005).

The World Health Organization classification system, the International Classification of Diseases 10 (ICD-10) (WHO, 1993) also involves slightly different diagnostic criteria. For example, a Brazilian study using the World Health Organization Composite International Diagnostic Interview (CIDI) illustrated that higher lifetime prevalence rates of SAD were found using DSM-III-R criteria (11.7%) than when using ICD-10 criteria (6.7%) (Rocha, Vorcaro, Uchoa, & Lima-Costa, 2005). However, while the ICD-10 is more used in clinical practice across the globe, the DSM is more utilized in research and therefore will be used throughout this research dissertation (Mezzich, 2002).

Irish prevalence rates have been estimated at 16.8% (unpublished paper; O'Sullivan et al., 2013). Despite its significant prevalence rates, it is considered under-recognized in both psychiatric and primary care settings (Fehm et al., 2005).

1.4 Demographic factors

SAD is characterised by an early age of onset, with many cases beginning in childhood or early adolescence (Fehm et al., 2005; Stein & Stein, 2008). The mean age of

onset in the United States is 13 years with 75% of individuals having an age of onset between 8 and 15 years (APA, 2013). Onset after age 25 is relatively uncommon (Magee, Eaton, Wittchen, McGonagle, & Kessler, 1996; Schneier, Johnson, Hornig, Liebowitz, & Weissman, 1992) with reported prevalence rates decreasing with age (APA, 2013). SAD has been described as a chronic and unremitting disorder, often persisting into old age (Cairney et al., 2007; DeWit, Ogborne, Offord, & MacDonald, 1999). In a review of gender differences across thirteen prevalence rates studies, Asher, Asnaani, and Aderka (2017) concluded that females had higher prevalence rates and higher severity rates than males. However, unique among anxiety disorders, men with SAD are more likely to seek treatment (APA, 2013). Additional studies are required to illuminate the rationale for these findings (Asher et al., 2017). Despite the level of impairment reported among SAD samples, research also indicates that approximately 50% of individuals with SAD never seek treatment, and when they do it is typically 15 to 20 years after onset (Fehm, Beesdo, Jacobi, & Fiedler, 2008; Fehm et al., 2005; Fehm, Schneider, & Hoyer, 2007; Stein & Stein, 2008). This may be due in part to the lack of awareness of the disorder or/and limited availability of appropriate services.

1.5 Social Anxiety Disorder – Functional Impact

The functional impact of SAD is wide ranging and significant. It is associated with serious social, occupational and educational impairments such as increased rates of school/college dropout (Stein & Kean, 2000), reduced educational attainments, employment in jobs that are below qualifications levels (Katzelnick & Greist, 2001), and lower income and employment levels (Fehm et al., 2005; Lampe, Slade, Issakidis, & Andrews, 2003), when compared to individuals without SAD. Individuals with SAD are also more likely to be single, unmarried or divorced (Eng, Heimberg, Hart, Schneier, & Liebowitz, 2001), to

report poor quality of life (Alonso et al., 2004), to engage in suicide attempts (Wunderlich, Bronisch, & Wittchen, 1998), and to be nicotine and alcohol dependent (Wittchen, Stein, & Kessler, 1999). In addition to the heavy personal cost of having SAD there is also the economic burden on society. In a project conducted by the Netherlands Mental Health Survey and Incidence Study - NEMESIS (Acarturk et al., 2009), the financial cost of this disorder to governments in relation to mental health service use alone was estimated at €11,952 per person per year. When the NEMESIS data was adjusted for co-morbidities the costs decreased to €6,100 per person or €136,000,000 per 1 million people (i.e., 2.3 billion euro per year). In a German cost-of-illness study, similar findings were produced: €9,604 per person annually (Stuhldreher et al., 2014). In line with research that highlights poor help seeking among individuals with SAD, this research noted that indirect costs (i.e., reduced productivity) were larger (77%) than direct costs (23%). Consequently, SAD is associated with significant negative health, functional and economic costs.

1.6 Comorbidity Axis 1 Disorders

Studies have shown that among individuals with a lifetime diagnosis of SAD, 52–80% have lifetime diagnoses of at least one other psychiatric disorder (Grant et al., 2005; Ruscio et al., 2008). The most frequently occurring co-morbid condition is mood disorders with reported rates ranging from 35–70% for major depressive disorder (MDD), and 3–21% for bipolar disorder (Perugi et al., 1999; Perugi, Frare, Toni, Mata, & Akiskal, 2001). Moreover, co-morbidity is higher in older adults (APA, 2013). In addition to this, SAD is a risk factor for suicidal ideation and suicide attempts with reported lifetime prevalence rates of suicidal ideation and suicide attempts as 34.8% (OR = 4.18) and 14.3% (OR = 5.07) respectively (Cogle, Keough, Riccardi, & Sachs-Ericsson, 2009). Individuals with SAD

often note the negative impact of prolonged social isolation and frequent, perceived social failures and losses.

Koyuncu et al. (2014) found that co-morbid rates for current and lifetime additional anxiety disorder with SAD were 21.5% and 27.5%, respectively. The most frequent anxiety disorder comorbidity diagnoses included, specific phobia (current or lifetime 14.6%), obsessive compulsive disorder (current 4.9%, lifetime 9.3%), panic disorder (current 3.2%, lifetime 6.1%), general anxiety disorder (current or lifetime 0.8%), and post-traumatic stress disorder (lifetime 4.0%). In the same study, the prevalence of comorbid eating disorders was 1.2% (Koyuncu et al., 2014).

Fang and Hofmann (2010) also reported that 4.8–12% of individuals with SAD have a diagnosis of body dysmorphic disorder (BDD) and 68.8% of individuals with BDD have a diagnosis of SAD. SAD is also associated with comorbid substance use disorders (Bandelow & Wedekind, 2014). Many sufferers acknowledge turning to alcohol to ease social inhibitions, which can then lead to overuse and dependency. Published prevalence rates for co-morbid alcohol misuse vary considerably. According to Kaufman and Carney's (2000) review, 35% to 54% of individuals with SAD also have a lifetime diagnosis of an alcohol misuse disorder. In contrast, other more recent studies report a lifetime prevalence of alcohol or substance use disorder as 7.7% (Koyuncu et al., 2014) or 20% (Randall, Thomas, & Thevos, 2001).

SAD seems to precede comorbid disorders in the majority of cases (Fehm et al., 2008). SAD has been found to precede mood, substance abuse and eating disorders. In 72% of individuals with both social anxiety and depression, social anxiety was found to precede depression, whereas only 5% had depression first (Regier, Rae, Narrow, Kaelber, & Schatzberg, 1998). A diagnosis of major depression has been found to follow the onset of SAD by an average of 13.2 years, but it has also been suggested that SAD may be a

secondary condition that remits naturally when the episode of depression has been resolved (Stein, Tancer, Gelernter, Vittone, & Uhde, 1990). Another important aspect of social anxiety is its relationship with suicidality. Thibodeau, Welch, Sareen, and Asmundson (2013) analysed data provided by the National Comorbidity Survey Replication (NCS-R) (n = 9,282) to assess the associations between specific anxiety disorders and suicide ideation and suicide attempts by means of propensity score matching. They found the matched odds ratios of lifetime suicidal ideation for individuals with lifetime diagnoses of social anxiety to be 2.09 (1.68-2.60).

The question of how comorbidity impacts on prognosis for the treatment of SAD is much debated in the literature. Several studies have noted that comorbid depression does not negatively influence anxiety symptom outcomes following Cognitive Behavioural Therapy (CBT) (e.g., Kampman, Keijsers, Hoogduin, & Hendriks, 2008; Schuurmans et al., 2009), whereas others have found that it predicts worse outcomes (Chambless, Beck, Gracely, & Grisham, 2000; Chambless, Tran, & Glass, 1997). Depression levels often improve following specific treatment for SAD (Marom, Gilboa-Schechtman, Aderka, Weizman, & Hermesh, 2009).

If comorbidity is assumed to develop as a consequence of SAD (Fehm et al., 2005) then early detection and effective intervention becomes even more important. The development of comorbid disorders adds to the severity of the disorder, thus adding to the personal burden. Ironically, it is the presence of secondary comorbid disorders that may often prompt help seeking behaviours (Fehm et al., 2005). Left untreated, as is often the case, social anxiety has the lowest natural remission rate (37% after 12 years) when compared with any other anxiety disorder diagnosis (Bruce et al., 2005).

1.7 Conclusion

Social anxiety is a common lifelong disorder associated with significant comorbidity and serious social, occupational and educational impairments. Moreover, the financial cost to society is considerable. Despite the degree of distress and impairment, many individuals with SAD never seek appropriate treatment and those that eventually do, the development of comorbid disorders result in treatment being more difficulted and protracted. The need for better public awareness, reduced stigma and early intervention is paramount.

The next chapter will review the various psychological theories that seek to explain the aetiology and maintenance of social anxiety. It will also consider the various therapeutic models that guide specific intervention with special attention given to CBT as this is the approach that informs the interventions that are employed in this current study. The pros and cons of using CBT in a group or individual format are evaluated. The evidence base for the various psychotherapeutic approaches is also reviewed.

Chapter 2: Theories of Social Anxiety Disorder

Comprehensive theories and subsequent intervention protocols for SAD were largely absent prior to 1985. This is not too surprising given that social phobia only gained recognition as a diagnosable disorder with the publication of the DSM-III in 1980. Prior to this, social fears were categorised with other anxiety disorders. However, efforts to treat social phobia were made and many of these earlier interventions have found a home in the current recommended psychological intervention regimes. This chapter examines the various psychological understandings of social anxiety from the early behavioural approaches, through to interpersonal theories and finally on to current cognitive behavioural approaches.

While standard CBT is not typically described as based on biopsychosocial theory (Engel, 1977), the fundamental approach of clinical psychology is biopsychosocial (Gilbert, 2009). According to Borrell-Carrió, Suchman, and Epstein (2004) the biopsychosocial model is a philosophy of clinical care; a way of understanding human distress that is affected by multiple levels of organization, from the societal to the molecular and therefore considers biological, psychological, and social factors and their complex interactions in understanding mental health issues. Therefore, this chapter will commence with a brief review of hereditary and temperamental influences.

2.1 Hereditary & Temperament

To date, a single integrated theory about the aetiology of SAD has yet to be identified. It is likely that there are numerous pathways in the development of SAD and one possible channel is through genetic-temperament transmission.

One interesting hypothesis is that susceptibility to the development of SAD is acquired through genetic inheritance but that specific environmental influences are necessary to facilitate its expression (Beidel & Turner, 2007). This gene-environment interaction is not unique to SAD but has been identified in other anxiety disorders, e.g., general anxiety disorder (GAD; Gottschalk & Domschke, 2017) and obsessional compulsive disorder (OCD; Taylor, Asmundson, & Jang, 2011). Historically, twin studies have been employed to clarify the relative contributions of both genetic and environmental influences but such studies into SAD have been relatively rare. Scaini, Belotti, and Ogliari (2014) conducted a meta-analysis, which included a total sample of 42,585 subjects across 13 different studies, and found that both genetic and environmental factors contribute to individual differences in SAD. They reported the proportion of variance for genetic factors and non-shared environment to be 0.41 and 0.54 respectively and noted that shared environment influence was much less significant. First, these findings suggest that there is a noteworthy genetic component to the aetiology of social anxiety. Second, the twins' shared environment - all features of the environment that would be common to the environment experienced by all children within that family – are relatively unimportant. Third, non-shared environmental experiences also play an important role. Possible sources of non-shared environmental variance include birth order, different parental treatment of and relationship with children, different extra-familial relationships with friends, peers, and teachers, and non-systemic factors such as accidents or illness (Plomin, Chipuer, & Neiderhiser, 1994).

Twin and adoption studies have confirmed the genetic influence on temperament (Saudino, 2005). Temperament is defined as aspects of character that we are born with (or innate traits) and while it can be modified by environmental factors it cannot be changed in any significant way. Many different classificatory schemes for temperament have been developed over the years (e.g., Thomas & Chess, 1977). Behavioural inhibition (timidity) has been found to place children at higher risk for the development of anxiety problems in

comparison to uninhibited children (32% vs. 5%, respectively) (Biederman et al., 1990). Therefore, this temperamental vulnerability may influence the outcome of exposure to socially traumatic experiences (Kagan, 1997). Aron (2016), while conducting research into *sensory-processing sensitivity*, proposed the term "highly sensitive person" (HSP) for individuals with traits that make them more reflective, sensitive to subtle stimuli, uncomfortable with novelty, and easily overstimulated. Aron (2016) further suggests that highly sensitive persons are particularly vulnerable during childhood to inadequate and insensitive parenting. In this context, negative insensitive caregiving can give rise to social anxiety later in life. Genetics can influence temperamental vulnerabilities which in turn influence, and are influenced, by environmental experiences. However, to date no specific set of genetic factors has been reliably identified (Dalrymple, 2012). An awareness of genetic vulnerability might be helpful for some individuals if it facilitated them to reduce self-blame and emphasized the need to actively learn anxiety management skills. It is also possible that such an awareness might facilitate a fatalistic attitude.

The remainder of this chapter will follow a chronological order as it describes the development of current CBT approaches to the treatment of SAD finishing with a brief review of promising alternative approaches. The next section will explore the contributions of behavioural theories, including classical and operant conditioning, to current CBT understandings of SAD.

2.2 Behavioural Theories

Behavioural theorists originally conceptualized social anxiety as indistinguishable to any other phobia - an excessive and irrational fear reaction to some specific stimuli. In this sense, social fears were considered a learned response to social stimuli, achieved through

either classical or operant conditioning (e.g., Mattick, Page, & Lampe, 1995), or by vicarious learning (Bandura, 1982).

2.2.1 Classical conditioning. In classical conditioning, the development of social anxiety is theorized as the effect of pairing social stimuli (e.g., being watched by others) with aversive experiences (e.g., being criticized, or otherwise socially diminished). Through paired association, the individual learns that being watched by others is synonymous with harsh criticism and subsequent shame and anxiety. In other words, individuals learn to fear social evaluation or being watched by others as this is associated with harsh negative judgements. According to Mattick et al. (1995) as many as 60% of people with social anxiety can identify a specific point of embarrassment or humiliation prior to the onset of the disorder thus giving credence to the idea of classical conditioning. However, these figures are based on retrospective studies that are marred by the questionable accuracy of recall (Nisbett & Wilson, 1977), and prospective studies are needed to confirm the proposed relationship.

Behavioural interventions developed to address the impact of classical conditioning include aversion therapy, systematic desensitization and flooding. Aversion therapy and flooding, while still employed as psychological interventions, have somewhat fallen out of favour due to controversy; flooding can be experienced as traumatic and there is much debate about the ethics of applying painful stimuli to people in aversion therapy. Neither aversion therapy nor flooding are utilized in either Clark and Wells' (1995) or Heimberg's (1995) CBT treatment models for social anxiety. However, systematic desensitization, as originally developed by Wolfe (1959), is still a central component of behavioural therapy and exposure techniques are still regularly employed in the treatment of social anxiety (Clark & Wells, 1995; Heimberg, 1995). It involves establishing a fear hierarchy, and pairing exposure to

triggers or events within this fear hierarchy to an incompatible response (e.g., a relaxation response). The establishment of a new pairing – social event and relaxation response – results in the earlier association with anxiety to be gradually extinguished, which is termed reciprocal inhibition.

Despite the significance of reciprocal inhibition in systematic desensitisation some early studies questioned the need for a relaxation response, and suggested it was unnecessary to therapeutic outcome and that the exposure element was the key component (Agras, 1971). While systematic desensitization is still used, the technique of graded exposure and response prevention (ERP) originally developed by Meyer (1966) for the treatment of Obsessive Compulsive Disorder (OCD) is now central to both Clark and Wells' (1995) and the Heimberg's (1995) treatment protocols. The response prevention element relates to the inappropriate behavioural or mental strategies used to reduce anxiety now commonly referred to as safety behaviours. In ERP, exposure (based on a graded hierarchy of feared situations) to the anxiety provoking situation is encouraged, and an opposite action response (e.g., non-avoidance) is also encouraged. Exposure can be achieved in two ways: *in vitro* – the fearful stimulus is merely imagined, or *in vivo* – the real-life exposure to the fearful stimulus. There is mounting research evidence over the past thirty years that supports ERP as an effective treatment (Koran, 2010). It is deemed to be effective through the mechanism of *expectation violation* (Burgoon & Jones, 1976). Positive violation of social expectancies, e.g., social interaction goes smoothly despite the removal of safety behaviours, force the individual to engage in a cognitive reappraisal of the initial expectation. This is very similar to the idea of *cognitive dissonance* originally proposed by Festinger (1957) and which informs much of the current theories of CBT (to be discussed in section 2.4). It refers to the discomfort experienced when an individual is exposed to new information (e.g., 'I am being accepted') that conflicts with existing beliefs (e.g., 'I am unacceptable'). The discomfort produced is viewed as therapeutic if it encourages the re-evaluation of existing unhelpful

beliefs, which are then re-organized to accommodate the new information and reduce the associated dissonance.

2.2.2 Operant conditioning. Operant conditioning is another behavioural concept that has influenced current CBT understanding of SAD aetiology. From a behavioural perspective, operant conditioning occurs when anxiety is maintained through escape and avoidance behaviours (Skinner, 1974). When an individual with SAD avoids a social situation or leaves a social event early, the escape or avoidance behaviour is negatively reinforced because it terminates an offensive experience. Future avoidance of similar social events serves to prevent further discomfort. However, while escape or avoidance strategies may appear to lessen anxiety in the short-term, in the long-term the individual with SAD is prevented from learning more adaptive ways of coping with anxiety provoking social situations. Moreover, escape and avoidance can also acquire positive reinforcement value as behavioural strategies that promise relief or hope and thus operate as a calming mechanism (Mowrer, 1960). The response prevention element of ERP was incorporated to challenge this maladaptive learning experience.

The next section will explore the contributions of approaches that emphasis interpersonal factors in the aetiology of SAD, involving social learning theory, social skills deficits to self-presentation theory.

2.3 Interpersonal Theories

Interpersonal theory is associated with Harry Stack Sullivan (1953), who argued that human personality is developed within a social context and that mental health disorders were the result of problematic interpersonal relationships. However, the term is being employed

here to cover the many psychological theories, which emphasize the role of the interpersonal factors in the development of SAD.

2.3.1 Social learning theory. Behavioural therapy, informed by the principles of classical and operant conditioning, began to become under scrutiny during the 1970s as researchers began to question some of its underlying assumptions, e.g., numerous people with anxiety disorders could not recall a traumatic conditioning event (Rachman, 1990). Moreover, many individuals who do experience traumatic social events do not go on to develop SAD (Mineka & Zinbarg, 1996). Social learning theory (SLT) evolved to address these concerns with additional rationales to help understand the role of social experiences in the development of anxiety (Bandura, 1977). Bandura (1977) argued that individuals can learn how to behave by observing the behaviour of others and by observing the consequences of that behaviour (observational learning or modelling). He also argued that learning is not merely behavioural but also involves cognitive processes that operate in a social context. Therefore, in the context of social anxiety individuals learn, through observation of others being ridiculed or behaving in an anxious fashion in a social situation, that social interactions are threatening and social approval is important (Mineka & Zinbarg, 1996). In a study by Rapee and Melville (1997), retrospective reports indicated more social avoidance within families with individuals who went on to develop SAD than non-clinical controls. Other studies have demonstrated that maternal modelling of fear has been shown to impact young children's fear and avoidance behaviour. Dubi, Rapee, Emerton, and Schniering (2008) found that toddlers (aged 15-20 months) showed heightened fear and avoidance to fear-irrelevant stimuli following negative reactions from their mothers. The verbal information pathway seems to be a particularly potent means of fear acquisition. Another study found

that fear beliefs of children aged 8-13 years were influenced by information provided by the parent (Muris, van Zwol, Huijding, & Mayer, 2010).

While genetic studies have shown that there is very little shared environmental influence on the development of social anxiety, the influence of genetics on temperamental vulnerabilities and the potentially difficult social environment of non-shared environmental factors may make a significant difference in social learning. Even twins may evoke different responses from others, and they may actively choose different experiences and different kinds of environments for themselves.

2.3.2 Social skills deficit. The main argument for considering social skills training is that SAD often starts in childhood, and due to avoidance behaviours, will limit social interaction and reduce opportunities to build social skills and confidence. However, the cognitive models of social anxiety (Clark & Wells, 1995; Heimberg & Becker, 2002) suggest that it is the employment of safety behaviours that cause significant impairment in social performance skills. The cognitive models also argue that individuals with SAD may have the requisite skills but cannot use them adequately under certain circumstances due to the interfering effects of situational social anxiety (Thompson & Rapee, 2002).

Angélico, Crippa, and Loureiro (2010) reviewed the literature on the effectiveness of social skills training (SST) for social anxiety (17 studies included in analysis) and concluded that SST was an effective intervention for SAD. However, it is difficult to separate out the influence of skills training from that of exposure, which would naturally occur within this therapeutic format, e.g., homework assignments involving social skills practice in a social setting. In a RCT, Beidel et al. (2014) compared exposure therapy to Social Effectiveness Therapy (SET), which involved group social skills training plus individual exposure. Following the intervention 67% of patients treated with SET and 54%

of patients treated with exposure therapy alone no longer met diagnostic criteria for SAD. Beidel et al. (2014) concluded that both interventions were effective but argued that the inclusion of an SST element may produce a more efficacious treatment outcome. However, the central importance of exposure was again emphasised.

2.3.3 Self-presentational theory. Social anxiety involves concern regarding the quality of social evaluation and therefore, it can be understood as a perceived self-presentational concern (Schlenker & Leary, 1982). Self-presentational theory sought to understand the process driving social anxiety from the perspectives of personality and social psychology. The self-presentation theory of social anxiety identified two factors affecting social anxiety: the desire to create specific social impressions in others (impression motivation) and the concern about the effectiveness in doing so (impression efficacy) (Leary & Kowalski, 1995). According to Leary and Kowalski (1995) the development of a heightened impression motivation coupled with a reduced impression efficacy is likely to be associated with a conditioned negative emotional response to earlier self-presentation failures. Research studies have found evidence of a relationship between impression motivation and social anxiety (e.g., Reno & Kenny, 1992) and other studies have found evidence of a relationship between impression efficacy and social anxiety (e.g., Leary, Atherton, Hill, & Hur, 1986). According to self-presentational theory, social anxiety results from high levels of impression motivation and low levels of impression efficacy (Catalino, Furr, & Bellis, 2012). Catalino et al. (2012) reported that impression motivation and impression efficacy were unique predictors of social anxiety.

Leary (1986) reasoned that individuals become socially anxious when they are driven by a desire to make a positive impression on others but doubt their ability to succeed in this. If individuals with SAD believe they have failed to make the desired impression in this

regard they can then experience a sense of ‘relational devaluation’ in that they fear that others will not consider the relationship with them as valuable or important (Leary, 2001). Relational devaluation is then seen to hinder the possibility of achieving desired interpersonal goals, e.g., others’ favour and approval. Schlenker and Leary’s self-presentational theory (1982) also suggested that an ‘assessment process’ is triggered when interpersonal goals are especially important or the social performance is impeded. This is very similar to the pre-event processing suggested by Clark and Wells (1995), which will be discussed in section 2.4. Moreover, Schlenker and Leary (1982) also suggested that an individual will withdraw or reduce interpersonal goals if the perceived likelihood of failure is deemed high. Virtue (2003) argues that Leary’s (2001) self-presentational theory is consistent with evolutionary theories of social anxiety (Gilbert, 2000, 2001); Gilbert’s evolutionary theory of social anxiety will be explored more fully in section 4.2.3.

2.4. The Cognitive Models of SAD

The development of the current cognitive models of social anxiety was prompted by the relative failure of standard behavioural exposure work to relieve symptoms of SAD (Butler, 1985, 1989). This is even reflected in the DSM-V diagnostic criteria for SAD – ‘social situations are avoided or endured with intense fear’. In contrast to other fearful reactions that tended to habituate in response to prolonged, repeated exposures, social anxiety often persisted and became more intense despite countless, unavoidable social encounters where feared catastrophes repeatedly failed to occur (Butler, 1985). Contemporary theories of SAD were developed to explain such persistence and emphasize the role of cognitive processes in the maintenance of the disorder (Clark & Wells, 1995; Leary, Kowalski, & Campbell, 1988; Rapee & Heimberg, 1997).

Two of the more renowned CBT treatment approaches to SAD are that of Heimberg and Becker (2002) and Clark and Wells (1995). Heimberg and Becker's (2002) model of SAD was heavily influenced by the generic Beckian model of CBT (Beck, Emery, & Greenburg, 2005).

According to Heimberg and Becker's (2002) model, when confronted with a social encounter, individuals with SAD will form a negative mental representation of themselves based on prior social experience, current internal cues (i.e., anxiety) and information based on their observations of the reactions of others (see Figure 2.1). They then will incessantly contrast this representation with their appraisal of the normal representation they believe their audience to expect. Then they allocate attention to monitor for evidence of any negative feedback and simultaneously predict a high probability of negative evaluation. Any detected evidence is responded to with cognitive, behavioural and physiological symptoms of anxiety, which in turn will feedback into their mental representation in subsequent social situations.

In Heimberg and Becker's (2002) treatment approach, the intervention is managed in a group setting (2 therapists, 12 weekly 2.5-hour sessions). Treatment components include:

- psychoeducation of the Beckian CBT model as applied to SAD,
- standard cognitive restructuring techniques (identifying negative cognitions, examining for logical errors and formulating rational responses),
- in-group graded exposure to feared situations with cognitive restructuring,
- behavioural experiments and finishing off with
- real-life graded exposure with cognitive restructuring.

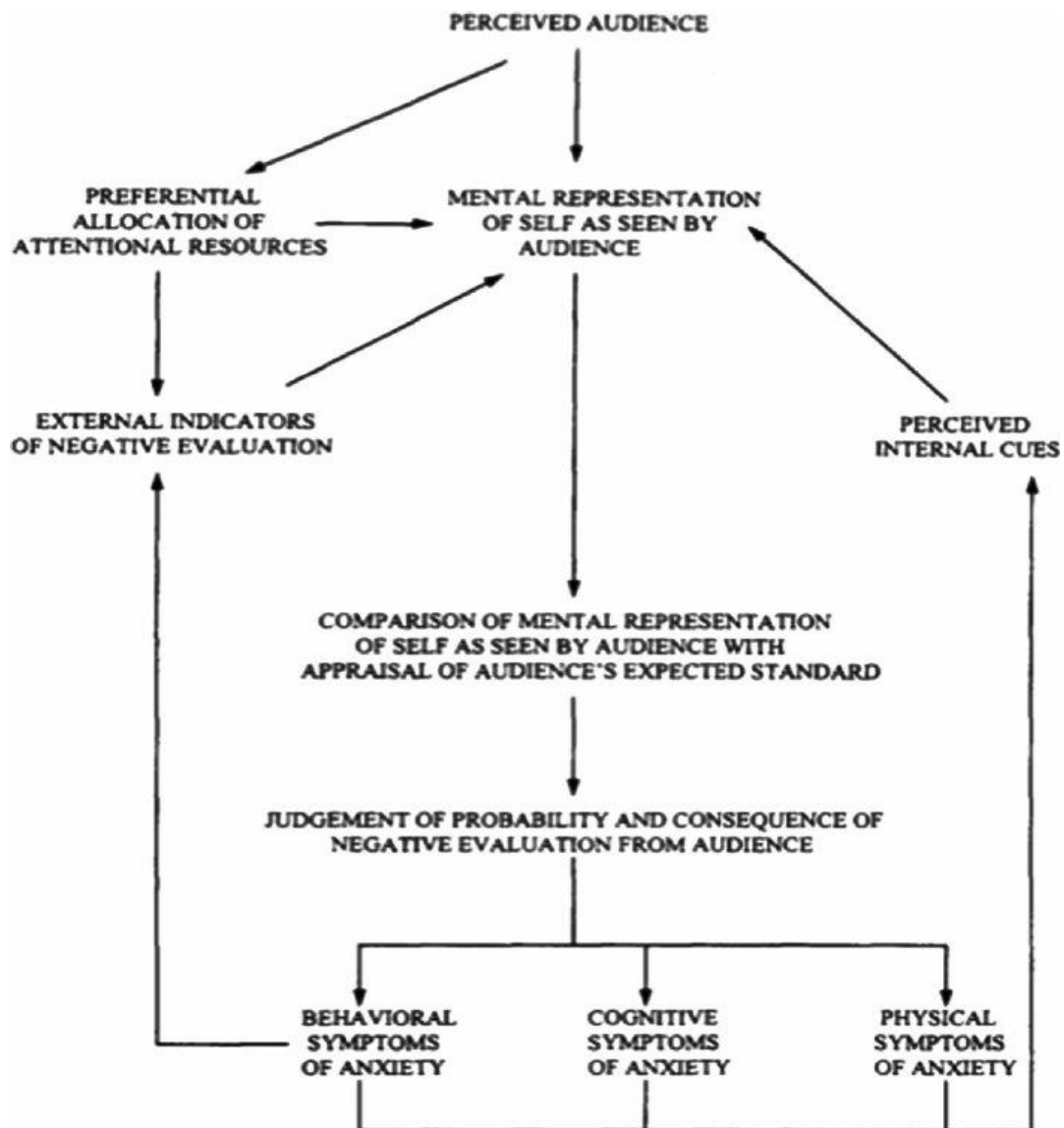


Figure 2.1: Heimberg and Becker's 2002 cognitive model of Social Anxiety Disorder

While Heimberg and Becker's (2002) treatment model has generated much research, the treatment strategies have shown only modest effect sizes. For example Davidson et al. (2004) reported effect sizes of 0.24 using the Brief Social Phobia Scale (BSPS; Davidson et al., 1997).

Clark and Wells (1995) were also intrigued by the relative failure of standard behavioural exposure work with individuals with SAD and they identified four different processes that they argued hindered behavioural exposure:

- underlying beliefs and assumptions that individuals with SAD hold about themselves and others,
- an inward shift of attention in social situations with enhanced self-consciousness,
- the employment of a range of safety strategies which prevent full exposure,
- the way that cognitive strategies process social events prior to and following a social encounter.

The next section will expand on the Clark and Wells' (1995) model of SAD as this is the model of interest in this study. Section (2.5) will then examine the research evidence in support of this model.

2.4.1 Underlying beliefs and assumptions. Human beings have a strong desire to make a good impression on others and achieve acceptance and a sense of belonging within groups (Baumeister & Leary, 1995). Individuals with SAD are no different in this respect; however, many of the underlying beliefs and assumptions they hold about themselves and others seriously limit their confidence in being able to achieve this goal. Clark (2001) describes three categories of assumptions that can be activated in feared social situations:

- *Excessively high standards for social performance*, e.g., “I must sound interesting and intelligent”, “I must not seem in any way odd or different”;
- *Conditional beliefs regarding the consequences of acting in certain ways*, e.g., “If I appear in any way anxious people will see me as incompetent”, “If I appear to blush or shake, people will think I’m weird”; and
- *Unconditional negative beliefs about the self*, e.g., “I am boring/stupid/odd”, “I am damaged”.

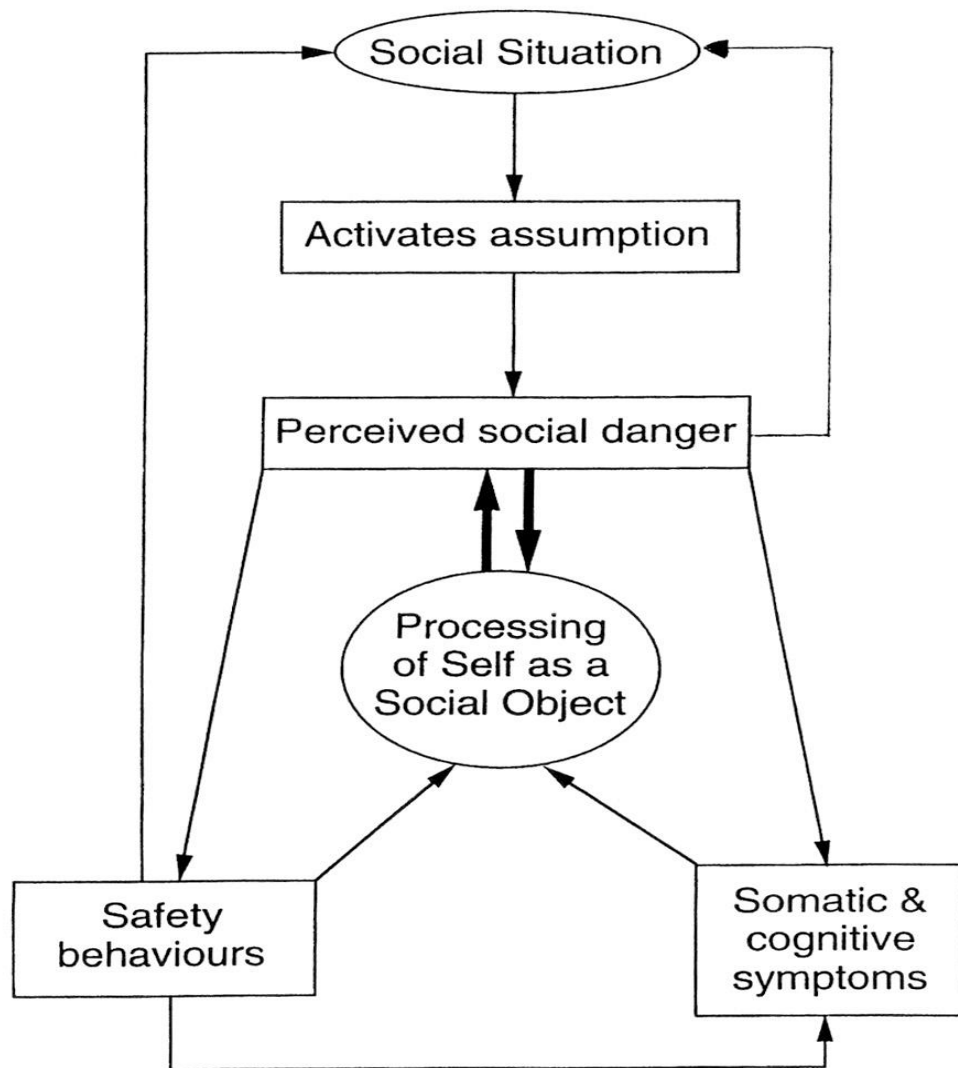


Figure 2.2 Clark and Wells' 1995 cognitive model of the processes that occur when a socially phobic individual enters a feared social situation.

The threat of being exposed or betrayed by some outward manifestation of vulnerability such as shakiness or blushing, or by failing to reach the high expectations that others are believed to hold for any type of social performance, arouses a sense of dread when individuals with SAD consider the prospect of a social encounter. Concerns may become highly focused (e.g., “I will really blush”) or remain unclear (e.g., “I will appear odd”) but will always centre on themes of behaving in some unacceptable way that will be perceived by others as grounds for a reduction of their respect, if not for outright ridicule. Based on

their early life experiences, individuals with SAD overestimate the likelihood and ferocity of potential social negative evaluation.

However, it was the remaining three cognitive factors that were used to explain how these dysfunctional assumptions and beliefs failed to modify in the face of apparent exposure.

2.4.2 Shift in attention and negative image of self. The first critical feature of SAD, according to Clark and Wells (1995), is the attentional shift to internal somatic symptoms of anxiety that is activated when a social encounter or performance is perceived as threatening. This is not unsurprising as the experience of anxiety demands our attention – it is part of its function. However, individuals with SAD are excessively concerned about any symptom of anxiety that they believe might be observed by others (e.g., blushing, sweating, mind blank). This can lead to hypervigilance for such symptoms which facilitates self-focused attention (Clark, 2005). This acute awareness of self or self-consciousness also involves a detailed monitoring and observation of the self. While Heimberg and Becker's (2002) model acknowledge attentional issues, they saw attention as divided between attention to external indicators of negative evaluation along with attention to perceived internal cues.

In Clark and Wells' (1995) model the prolonged self-monitoring provides internal information, e.g., intense and unappealing anxiety symptoms, which is then used as a building block to construct a damning public self-image. This self-image, constructed from the perspective of the observer, is further refined by the impact of anxiety on social skills and an overwhelming sense of awkwardness. Regardless of what may in fact be happening, the individual's attention becomes focused almost exclusively on the terrifying image of how he or she imagines they might appear. The results of internal self-monitoring, attention to negative thoughts and just fleeting attention to the external social world, whose behaviour

is generally neutral or ambiguous, serve only to confirm their worst fear of how they are being perceived, and further locks them into self-focused attention. In this context, the only exposure that is happening is to one's internal states, which is experienced as traumatic, and not the external social environment. The typical disconfirmatory evidence that is provided in full behavioural exposure never really occurs. Rather, as Clark and Wells (1995) note, individuals with SAD get trapped in a closed system of self-generated information. This sets up a vicious cycle that perpetuates the problem of social anxiety and reinforces their perception of the social situation as threatening. Attentional control training, with an emphasis on externally focused attention during social encounters (sometimes referred to as interrogating the environment) is a central intervention strategy in the model. This facilitates the awareness of disconfirmatory evidence which is then used for cognitive restructuring. It also has the additional benefit of less attention to internal anxiety symptoms and subsequent less threat activation, helping to break the internal cycle of threat-anxiety-threat. Relaxation exercises undertaken to regulate anxiety may fail to deliver their desired effect because they unwittingly reinforce the self-focused attention and self-consciousness that are central to the problem of SAD. However, McEvoy and Perini (2009) compared CBT and attentional control training with CBT and relaxation training and found no evidence that either approach was superior in terms of improved social anxiety outcomes. McEvoy and Perini (2009) speculated that techniques used in standard CBT, (e.g., behavioural experiments and thought challenging) already facilitate metacognitive processing that increase attentional flexibility and control.

There is some evidence emerging to suggest that social anxiety and related cognitions and social performance may be influenced by self-focused attention (Grisham, King, Makkar, & Felmingham, 2015; Mellings & Alden, 2000; Saboonchi, Lundh, & Öst, 1999; Spurr & Stopa, 2002; Vriends, Meral, Bargas-Avila, Stadler, & Bögels, 2017; Woody & Rodriguez, 2000). However, many other studies have found that self-focused attention

increases anxiety levels irrespective of core levels of social concerns (e.g., George & Stopa, 2008; McManus, Sacadura, & Clark, 2008), while other have found that self-focused attention has no effect on anxiety levels (Bögels, Rijsemus, & De Jong, 2002). The ecological validity of procedures used in these studies has been questioned, e.g., the likelihood of the procedures employed also eliciting social evaluative concerns (Jakymyn & Harris, 2012). Nevertheless, therapeutic interventions aimed at reducing self-focused attention or *self-consciousness* are often associated with improvement in levels of social anxiety (e.g., Desnoyers, Kocovski, Fleming, & Antony, 2017; Hofmann, 2000; Schreiber, Heimlich, Schweitzer, & Stangier, 2015; Woody, Chambless, & Glass, 1997). Jakymyn and Harris (2012) suggest that self-focused attention combined with the activation of social evaluative concerns are responsible for these findings and therefore interventions need to target both processes. A study looked at neural correlates of self-focused attention in social anxiety using functional magnetic resonance imaging (Boehme, Miltner, & Straube, 2015). Results indicate hyperactivation of medial prefrontal cortex, temporo-parietal junction and temporal pole during self-focused attention versus other focused attention in individuals with SAD compared to controls. The authors argue that there are distinct neurological differences in the quality of self-focused attention between the two groups.

Finally, studies have demonstrated that individuals with SAD are impaired in their processing of external cues when anxious (e.g., Chen, Ehlers, Clark, & Mansell, 2002; Horley, Williams, Gonsalvez, & Gordon, 2004) and consistently generate distorted observer perspective images of themselves, which appear most often to be a reactivation of early images of themselves that were triggered by early socially traumatic experiences (Hackmann, Clark, & McManus, 2000). When threatened by the prospect of social interactions, anxiety is evoked because of social evaluative concerns (driven by past history) and attention processes are diverted inwards. As these images may reflect unprocessed traumatic experiences, and because the attention of the individual is self-focused in anxious

situations, they are seldom updated in the light of positive encounters and so continue to reoccur. The Clark and Wells (1995) model recommends addressing both self-focused attention and the underlying social evaluative concerns.

2.4.3 Safety behaviours. Safety behaviours can be viewed as any attempt to manage unpleasant experiences through avoidance, escape, suppression, distraction, or control (Craske et al., 2008). Salkovskis (1991) was one of the first cognitive researchers to evaluate the relationship between threat activation in anxiety disorders and safety seeking behaviours, which he classified as either anticipatory (avoidant) or consequent (escape). He posited that anxiety disorders are maintained due to avoidance or escape behaviours preventing access to new experiences that might challenge established threat-related cognitions. According to Kirk, Meyer, Whisman, Deacon, and Arch (2019) avoidance behaviour can be understood and quantified in two fundamental ways. The first is associated with immediate behaviours that occur within a specific context designed to prevent, escape, or minimize the feared consequences of anxiety (Blakey & Abramowitz, 2016). The second relates to a rigid and contextually insensitive trait-like tendency toward avoidance behaviours, conceptualized as experiential avoidance (Hayes, Wilson, Gifford, Follette, & Strosahl, 2016). Both safety behaviours and experiential avoidance have been linked to anxiety disorders (Blakey & Abramowitz, 2016; Helbig-Lang & Petermann, 2010; Kashdan, Breen, Afram, & Terhar, 2010; Wolgast, Lundh, & Viborg, 2013). Some authors have suggested that the employment of safety behaviours may be somewhat governed by heightened experiential avoidance (Craske et al., 2008; Kashdan, Barrios, Forsyth, & Steger, 2006).

In the context of SAD, safety behaviours are any behavioural and/or internal mental processes employed to minimize the possibility of negative evaluation or humiliation and rejection in social situations (e.g., avoiding eye contact to reduce the possibility of being

engaged in conversation). According to Clark and Wells (1995) these safety behaviours assume a vital role for individuals with SAD; they are believed to be their only protection from certain humiliation and rejection, while they are ultimately self-defeating. Clark (2005) listed the numerous ways that safety behaviours are part of the SAD maintenance cycle. Clark (2005) argued that many safety behaviours resulted in increased self-focused attention, e.g., mentally rehearsing what to say involves self-attention focus, which then prevents individuals with SAD from ever experiencing direct or unmediated exposure to social situations and discovering that their negative predictions of themselves and others are biased, if not entirely false. Clark (2005) also noted that numerous safety behaviours have the potential to create the impression of odd behaviour in the individual with SAD and invite the somewhat perplexed attention of others. Individuals presenting with SAD often seem 'aloof', 'unfriendly' 'cold' or 'distant' and not unnecessarily 'anxious'; this typically happens because of such safety behaviours as, limited eye contact, limited verbal responses, and internally focused attention (Alden & Bieling, 1998; Alden & Wallace, 1995; Curtis & Miller, 1986; Kim, 2005). This is one of the great ironies of safety behaviours; they are put in place to conceal distress that might be negatively evaluated and yet often attract a different kind of negative evaluation. Their reliance on safety behaviours may help to conceal some elements of their anxiety but it does little for their public identities. Moreover, if an individual with SAD appears distant and preoccupied this tends to discourage others from initiating conversations with them, which can then be used to confirm negative beliefs that they are socially unacceptable. This may also explain why the earlier popularity of social skill training with this population failed to achieve its intended effect (Heimberg, 1989; Marzillier, Lambert, & Kellett, 1976; Stravynski et al., 2000). Clark (2005) also reasoned that some safety behaviours can inadvertently produce some of the symptoms that individuals with SAD fear, e.g., increasing muscle tension to reduce shaking will result in increased shaking (as the shaking was originally caused by muscle tension), placing hands

over face to hide blushing can increase facial warmth and thus redness. Some safety behaviours can attract other people's attention, e.g., being quiet in a social gathering, which is largely what they are intended to avoid (Clark, 2005).

Salkovskis (1996) noted that when social situations do not turn out as predicted, success is often attributed to these safety behaviours, and not to the individual's mistaken predictions, which can lead to a greater faith and reliance on safety behaviours. Finally, safety behaviours imply that social situations are dangerous and employing them protects against this. However, far from serving to make social situations safer, safety behaviours contribute significantly to the perpetuation of the belief that the social world is a dangerous and unforgiving place, and that if one were to "be oneself" (i.e., to drop safety strategies), rejection would inevitably follow. How can the individual with SAD learn to understand that social situations are reasonably safe if they keep acting as if they are dangerous?

The potential for safety behaviours to adversely increase social anxiety (Morgan & Raffle, 1999; Wells et al., 2016), post-event processing (Mitchell & Schmidt, 2014), negative social judgements (Taylor & Alden, 2010), and self-presentation concerns (Moscovitch et al., 2013) has been consistently demonstrated in the literature. The positive impact on social anxiety of reducing safety behaviours has also been well established (McManus et al., 2008; Okajima, Kanai, Chen, & Sakano, 2009). A recent study asked female undergraduates (n = 99) without clinical anxiety to actively engage in safety behaviours for just one week. Results found, among other things, an increase in SAD symptoms and social anxious related threat interpretations relative to a control group (Summers & Cogle, 2018); engaging in safety behaviours increased levels of social anxiety. Safety behaviours may appear to relax someone sufficiently, so they can engage successfully with others. However, underlying assumptions regarding others' intolerance of vulnerability cannot be effectively tested until safety behaviours are dropped. For all the reasons just

described Clark and Wells (1995) incorporated safety behaviour reduction in conjunction with behavioural exposure in their treatment model.

2.4.4 Pre and post event processing. Clark and Wells (1995) also focussed on the way that cognitive strategies process social events prior to and following a social encounter. Facing the imminent prospect of a social encounter or performance situation, individuals with SAD can become intensely anxious. Typically, they review a host of memories of previous social encounters where they perceived themselves to have failed and are convinced that these negative experiences will be repeated. This entire process is deemed to be driven by the belief that others expect a high social standard, coupled with a low self-belief concerning their ability to do so (Hofmann, 2007). Clark and Wells (1995) highlighted the destructive effects of this *negative anticipatory processing* or previewing. Negative anticipation can either have the effect of making individuals with SAD withdraw entirely from a social event, or of inducing in them a high state of arousal and self-focused attention by the time they confront it. During this pre-event phase there is a pre-occupation with the expectation of failure based on previous perceptions of failure and their cognitive processing is so biased and introspective that they often fail to notice what, in fact, transpires during the social encounter itself, e.g., being received positively by others. Even when positive aspects of their social encounters are noticed, these can be quickly discounted as not significant. Pre-event processing is not necessarily problematic as thinking about a future event can be adaptive; preparation and planning can facilitate coping. The main difference between individuals with SAD and normal controls is the negatively biased manner in which information is processed (Vassilopoulos, 2008).

Similarly, when the event is over, individuals with SAD often engage in destructive reviews or *post-event processing* where their ruminations are focused exclusively on how

they may have let themselves down. Clark (2001) has described the abiding sense of embarrassment and shame most individuals with SAD can experience long after a social event, regardless of how well they may have managed it. In this way, there is a tendency to accumulate evidence from each encounter that serves to reinforce their deeper assumptions of being socially incompetent. This feature of social anxiety has important clinical implications. Individuals with SAD may have positive experiences in simulated social encounters in the context of a therapy session (and acknowledge their achievement at the time), but a few days later, their report of what transpired often has become distorted because of biased post-event processing. The relationship between post-event negative processing and social anxiety disorder has been well established in the literature (e.g., Fehm et al., 2007). In a study by Penny and Abbott (2015), individuals with SAD (n = 91) engaged in significantly more pre-event and post-event processing than non-anxious controls. They also had greater threat perception, state anxiety and lower ratings of social self-efficacy.

Any programme of intervention should include a functional analysis of this aspect of social anxiety. Individuals with SAD need to understand their attachment to this behaviour as a safety strategy, which they believe will protect them from making embarrassing mistakes in social situations. However, they also need to become aware of how a negatively biased pre-event and post-event processing severely undermine their confidence to interact in the social world.

2.5 Evidence in Support of the Cognitive Models of Social Anxiety Disorder

There are two primary CBT treatment models for the treatment of SAD: one developed by Heimberg and colleagues (e.g., Heimberg & Juster, 1994; Rapee & Heimberg, 1997) and another developed by Clark and Wells (1995). These models have formed the basis for a considerable body of research on both the descriptive psychopathology of SAD

and on approaches to its treatment since that time (Hofmann & DiBartolo, 2014; Roth & Heimberg, 2001; Sturmey & Hersen, 2012). Both models were informed by clinical observations of individuals with SAD. Heimberg and his collaborators focused on the development of a successful CBT group (CBGT) treatment programme, while Clark and Wells (1995) focused on an individualized treatment protocol. The Clark and Wells (1995) model outlined above, offers a number of hypotheses that have been subjected to a wealth of experimental studies. Overall, there is a growing body of evidence in support of specific features of their model.

2.5.1 CBT effectiveness. CBT interventions for SAD have been extensively researched. A review of numerous meta-analyses (e.g., Acarturk et al., 2009; Canton, Scott, & Glue, 2012; Chambless & Hope, 1996; Fedoroff & Taylor, 2001; Feske & Chambless, 1995; Gould, Buckminster, Pollack, Otto, & Yap, 1997; Mayo-Wilson et al., 2014; Powers, Sigmarsson, & Emmelkamp, 2008; Rodebaugh, Holaway, & Heimberg, 2004; Taylor, 1996; Wersebe, Sijbrandij, & Cuijpers, 2013) found CBT and CBGT to be superior to wait list controls, placebo controls, and of similar efficacy to exposure therapy and pharmacological intervention. Only three studies report on long-term effects of CBT for social anxiety and in each one, the CBT interventions showed greater maintenance of treatment gains, or protection against relapse, relative to the drug interventions (Clark et al., 2003; Haug et al., 2003; Liebowitz et al., 1999). Each of these meta-analysis used slightly different methodologies and reported effect sizes (Cohen's *d*) of between 0.74 (Gould et al., 1997) to 0.90 (Feske & Chambless, 1995).

A meta-analysis by Canton et al. (2012) reported a mean effect size of 0.86. The National Institute of Clinical Excellence (NICE; 2013) guidelines on the treatment of social

anxiety conducted its own review of efficacy studies; their conclusion indicated a mean effect size (Cohen's *d*) of 1.19 for individual CBT and 0.85 for CBGT.

The most remarkable outcome results achieved to date, in the psychological treatment of SAD, are those of Clark et al. (2003). In this study Cognitive Therapy (CT) was compared to fluoxetine plus self-exposure and placebo plus self-exposure (*n* = 60) with CT achieving an effect size of 2.14 on a Social Phobia Composite scale. This measure was created by combining scores from seven different, commonly used but robust outcome measures (Clark et al., 2003). Moreover, these treatment gains were maintained at 12-month follow-up (effect size = 2.53).

No other published study on the efficacy of individual CBT has produced effect sizes of this magnitude other than Clark et al. (2006). These findings have proved difficult to replicate in other settings (Mörtberg, Clark, Sundin, & Wistedt, 2007; Stangier, Heidenreich, Peitz, Lauterbach, & Clark, 2003). The Clark and Wells (1995) model was developed with an individual format in mind. Stangier et al. (2003) in their randomized control trial (*n* = 71) adapted Clark and Wells' (1995) model for a group setting and then compared the outcome of the group format to the original individual format; a waitlist group acted as a control. While the individual format was superior to the group setting, the effect sizes achieved were markedly more moderate than the earlier Oxford groups findings (Clark et al., 2003). Stangier et al. (2003) compared their post-intervention results on the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998) and Social Phobia Scale (SPS: Mattick & Clarke, 1998) with the findings published in the Clark et al. (2003) study and noted the superiority of the Clark et al. (2003) effect sizes (on the SIAS: 0.85 versus 1.94, and on the SPS: 0.90 versus 1.31). The group format achieved a more moderate SIAS and SPS Cohen's effect size of 0.53. Replication of the Clark et al.'s (2006, 2003) findings in a controlled trial is required in order to substantiate their own reported findings. Moreover, Clark et al. (2003)

excluded individuals with specific social anxiety and co-morbid major depression, which limited its generalization. Clark et al.'s (2006) later study did permit co-morbid depression and still managed an effect size of 2.63 on the Social Phobia Composite. Clark et al. (2006) conceded these studies were led by the team that developed the Cognitive Therapy intervention programme and deemed it important to see how well cognitive therapy transported to other clinics and countries.

Most of research in this area reflects efficacy studies conducted in 'research' environments, which are high on internal validity. Few have examined how effective these interventions are in a real-life setting, which would attest to their external validity. Mc Evoy (2007) conducted a benchmark study comparing clinical outcomes from published efficacy studies to a more typical community mental health based CBT group treatment protocol and found them to be comparable. Mc Evoy's (2007) group treatment was based on the Clark and Wells model and offered participants (n = 153) seven weekly sessions of four hours duration. This study used the SIAS (Mattick & Clarke, 1998) the SPS (Mattick & Clarke, 1998) and the Beck Depression Inventory (BDI-II; Beck, Steer, & Brown, 1996) as outcome measures and achieved a mean effect size of 0.90. Mc Evoy (2007) indicated the need for an efficacy based study to complement these findings.

2.5.2 Cognitive-behavioural group therapy (CBGT) vs individual CBT.

Research comparing individual CBT to CBGT for social anxiety has, to date, been limited and has produced mixed outcomes (e.g., Rodebaugh et al., 2004; Stangier et al., 2003). Rodebaugh et al. (2004) reviewed five meta-analysis that specifically addressed the treatment of SAD using a CBT approach (Chambless & Hope, 1996; Fedoroff & Taylor, 2001; Feske & Chambless, 1995; Gould et al., 1997; Taylor, 1996) and noted that the meta-analyses included a range of CBT-type interventions including (a) behavioural exposure, (b)

cognitive restructuring, (c) social skills training (SST) and (d) applied relaxation, which were employed in various combinations and in both group and individual formats. Rodebaugh et al. (2004) concluded that there was little evidence to suggest that either group or individual format produced better outcomes. They noted the discrepancy between their meta-analysis and Stangier et al.'s (2003) findings, and suggest that the Clark and Wells' treatment model might be less effective in a group format.

The issue of which format is more cost effective also elicits different opinions. Research emerging from the USA, which engages more in GCBT, argues that this format is at least twice as cost effective as individual CBT (e.g., Gould et al., 1997). Gould et al. (1997) used then current cost of individual CBT sessions (\$90.00), and group CBT sessions (\$40.00) in the financial analysis: both interventions lasted 15 sessions. However, recent NICE (2013) guidelines for the treatment of SAD, which utilized sophisticated economic modelling techniques to determine cost issues, did not recommend Cognitive Behavioural Group Therapy (CBGT) intervention. While the guidelines recognize that the Rapee and Heimberg (1997) CBGT is successful in terms of outcomes, it contends that it is difficult to recruit socially anxious individuals and is overall less cost-effective and less clinically effective than Clark and Wells' (1995) individual CBT. Rapee and Heimberg's (1997) CBGT is based on 30 hours, two therapists and six clients (10 hours per participant) (NICE, table 18, p. 170). However, other CBGT studies have employed larger groups numbers (e.g., 9 participants) without any loss of effectiveness (e.g., McEvoy, 2007). It is difficult to obtain unambiguous data within the literature on effect sizes of these two approaches, though the trend seems to be in favor of Clark and Wells' (1995) model. Moreover, the optimal model of CBGT remains to be determined; for example, shorter group sessions may prove equally effective.

The provision of economical and easily available evidence-based psychological therapies for SAD is one of the aims of the UK driven review “Improving Access to Psychological Therapies” (‘The IAPT data handbook’, 2011) and almost all publicly funded services. CBT is considered a core IAPT therapeutic intervention. Recently, there has been an interest in looking at novel ways to offer low cost CBT interventions. Various combinations of ‘self-help’ programmes have been developed and evaluated: these have included self-help books (with and without psychotherapist support) (e.g., Abramowitz, Moore, Braddock, & Harrington, 2009; Chung & Kwon, 2008) and Internet self-help programmes (with and without psychotherapist support) (e.g., Titov, Andrews, Choi, Schwencke, & Johnston, 2009; Titov, Andrews, Choi, Schwencke, & Mahoney, 2008). The early findings from these programmes are very promising. Self-help models with a psychotherapist support (typically 2-3 hours of phone/face-to-face contact) tend to produce better results than those without such support. In one randomized controlled study (Andrews, Davies, & Titov, 2011) internet cognitive behaviour therapy (iCBT) was compared to traditional face-to-face group CBT; no significant differences were noted between the two approaches.

2.6 Other Therapeutic Approaches

Numerous other forms of psychotherapy have been applied to the treatment of SAD. These include, interpersonal psychotherapy (e.g., Lipsitz, Markowitz, & Cherry, 1997), short-term or brief psychodynamic psychotherapy (e.g., Leichsenring, Beutel, & Leibing, 2007), mindfulness based stress reduction (MBSR) (e.g., Jazaieri, Goldin, Werner, Ziv, & Gross, 2012), supportive psychotherapy (e.g., Lipsitz et al., 2008), social skills training, (e.g., van Dam-Baggen & Kraaimaat, 2000) applied relaxation (e.g., Clark et al., 2006), and even aerobic exercise (e.g., Jazaieri et al., 2012). Evidence has been produced for the

effectiveness of each of these approaches, but none has achieved the same post-intervention effect sizes as the CBT approaches.

While effectiveness studies are important in determining the relative therapeutic impact of various approaches to the treatment of SAD in real-world settings, they seldom address the relative economic costs involved. Public health systems are typically underfunded, and their staff over stretched and being able to provide more cost-effective treatments means more individuals being able to receive the psychological care they need. The extensive review that informed the NICE (2013) guideline for the treatment of SAD took account of both treatment effectiveness and cost effectiveness into their final recommendations. A manualized short-term psychodynamic psychotherapy (SSPP) specifically developed for social anxiety (see Leichsenring et al., 2007) is the only non-CBT informed intervention to make it to their final list.

2.6.1 Short-term psychodynamic psychotherapy (SSPP). SSPP assumes that social anxiety and its associated behavioural avoidance are related to unconscious psychodynamic conflicts. It posits that individuals with SAD have had negative childhood experiences of being criticized, ridiculed, or humiliated by parents, siblings or significant others; it shares this assumption with CBT approaches. These experiences are internalized and then frequently projected onto people in their environment who are then avoided, for fear of criticism and rejection. Unconscious defence mechanisms are then utilized to defend against hostile wishes and fantasies surrounding these early core conflictual relationships. From a psychodynamic point of view, social anxiety is both a symptom of this conflict and a punishment for harbouring hostile fantasies. Avoidance behaviour is understood as a way of avoiding social triggers that provoke this conflict into conscious awareness.

The psychotherapeutic technique used in SSPP is derived from Malan's (1976, 1996) focused, short-term psychoanalytic psychotherapy. In this framework, the core conflictual relationship is hinged on three components: (a) a desire (e.g., "I wish to be accepted by others"), (b) an imagined response from others (e.g., "Others will reject me") and (c) a response from the self (e.g., "I'm afraid to approach others"). This is very similar to both Clark and Wells' (1995) and Rapee and Heimberg's (1997b) conceptual models of SAD. This response from the self represents the various symptoms of social anxiety. Expressive interventions aim to help the individual with SAD become aware of the link between conflicts and symptoms. Supportive interventions include interpretations, reassurance and encouragement. Self-affirming inner dialogues are also encouraged. Individuals with SAD are encouraged to expose themselves to feared social situations outside therapy sessions. Most of the interventions suggested are also central components to established CBT models. Establishing a secure therapeutic alliance is one of the model's most important supportive treatment elements as the therapeutic relationship is viewed as a central medium for insight and change. There are scant research studies evaluating this approach to the treatment of social anxiety. In one large multi-centre study (n = 495) which compared CBT, brief psychodynamic therapy and a wait list control (Leichsenring et al., 2013), a reduction of 29.12 points (95% CI = 25.50–32.73) was achieved by CBT on the Liebowitz Social Anxiety Scale (LSAS; Liebowitz, 1987) with the brief psychodynamic therapy intervention achieving a reduction of 22.55 points (95% CI = 18.96 to 26.13); the waiting list control managed a 5.19 points reduction (95% CI = –0.14 to 10.52). A more recent study by Wiltink et al. (2017) compared the clinical outcomes of manualized SSPP to routine psychodynamic psychotherapy across 25 sessions. While both approaches were found to be broadly comparable in terms of outcomes, Cohen's effect size for the LSAS (Liebowitz, 1987) at the 25 session mark was 0.82 compared to 0.95. These findings suggest that more research is desirable.

2.7 Summary

The well-known quote ‘genes load the gun, environment pulls the trigger’ (Bray, 1998) is likely a fitting metaphor for the aetiology of SAD. Vulnerability is acquired through an individual’s genetic-temperament while environmental influences facilitate its expression (Beidel & Turner, 2007). Numerous psychological traditions have sought to illuminate the nature and dynamics of these environmental influences. Almost all current psychological models of SAD incorporate the idea of social evaluative trauma in their theoretical understanding of SAD, and argue that individuals become socially anxious when they are driven by a desire to make a positive impression on others but doubt their ability to succeed in this (Leary, 1986; Schlenker & Leary, 1982).

The usefulness of alternative psychological approaches to the treatment of social anxiety were also reviewed and some of them show much promise: e.g., SSPP, Internet self-help programmes (with and without psychotherapist support). However, more research needs to be conducted and the possibility of therapeutic options is always to be welcomed.

2.8 Conclusion

Numerous psychological therapies have been considered and evaluated for the treatment of SAD and despite methodological differences the weight of research findings to date indicate that the Clark and Wells’ (1995) CBT model, delivered in an individual format, is the most effective treatment for social anxiety currently available. The cognitive model of social phobia proposed by Clark and Wells (1995) does provides a systematic comprehensive treatment approach that addresses both the distressing symptoms that constitute this syndrome and the underlying vulnerabilities that account for its persistence and intractability. However, the possibility of successfully adopting this approach to a group

format while maintaining therapeutic gains is desirable. Several studies have produced promising results of the successful adaptation of the Clark and Wells (1995) model in a group format (Marom et al., 2009; McEvoy, 2007; McEvoy, Nathan, Rapee, & Campbell, 2012). There is a need for similar studies as these are the settings that mental health care is delivered. Effective interventions incorporate some form of behavioural exposure into their programmes as avoidance is viewed as the core maintenance factor. (e.g., Clark & Wells, 1995; Rapee & Heimberg, 1997).

The next chapter will look at the findings of a retrospective Irish effectiveness study that also adapted the Clark and Wells' (1995) model into a group setting and delivered the intervention in a hospital based mental health setting. This group programme commenced in 1998 prior to the publication of the NICE (2013) guidelines. The Clark and Wells' (1995) model was chosen over Rapee and Heimberg's (1997) because of its supporting evidence base (Clark, 1998) and because it offered a more detailed account of the relative failure of traditional exposure approaches with specific interventions designed to address these. In addition, because of the demands and under-resourcing of mental health services, a group format was selected as this allowed more individuals to be offered intervention in a set time-period. A group format also seemed a natural setting for the treatment of SAD.

Chapter 3. Effectiveness of a cognitive behavioural group therapy (CBGT) for social anxiety disorder: immediate and long-term benefits

3.1 Introduction

This chapter will describe and evaluate the effectiveness of an Irish community-based CBGT intervention, based on Clark and Wells' (1995) model, in reducing symptoms and problem areas associated with SAD. Given the prevalence and chronic course of SAD, many therapists will have several individuals with SAD on their active caseloads; such individuals may represent a substantial drain on limited public resources. Moreover, like many Western countries, the current economic climate in Ireland's healthcare system demands the efficient provision of empirically validated treatments in an accessible, yet cost-effective manner. The IAPT programme in the UK makes psychological therapies for depression and anxiety disorders widely available to address the under-provision of evidence-based treatments. CBT is a core IAPT therapeutic intervention and in a report (Richards & Borglin, 2011) it was noted that individuals were treated in relatively few sessions ($n = 5$) with a short combined contact time (3 hours); such an approach reflects the low-intensity nature of the stepped care system. Although positive effects were reported it is noteworthy that CBGT sessions were not provided; given the aims of IAPT, if the efficacy of CBGT can be established then such approaches provide the potential to effectively manage long-waiting lists for services.

As noted in section 2.5.1, research comparing individual CBT to CBGT for social anxiety has produced mixed outcomes. Rodebaugh et al. (2004) concluded that there was *little evidence* to suggest that either group or individual format produced better outcomes. They noted the discrepancy between their meta-analysis and Stangier et al.'s (2003) findings and suggested that the Clark and Wells treatment model might be less effective in a group format. However, little research had empirically addressed this suggestion. Nevertheless,

given the encouraging findings of McEvoy (2007) that a community mental health-based CBGT treatment based on the Clark and Wells model produced outcomes comparable to those reported in the efficacy studies, the clinical effectiveness of such interventions warrants further investigation.

Until recently, relatively few studies on SAD have addressed the issue of moderators of treatment outcome. A moderator is a variable that affects the direction and/or strength of the relation between an independent variable and a dependent variable (MacKinnon, Fairchild, & Fritz, 2007). In other words, a moderator variable is one that influences the strength of a relationship between an intervention and an outcome (MacKinnon et al., 2007). Initially, a causal relationship is presumed between the independent variable and the dependent variable. A moderator variable is a third variable that alters the strength of the causal relationship. Moderators are variables that are present among the population prior to an intervention.

Baseline demographics, e.g., age, gender, race/ethnicity and socioeconomic status, tend not to moderate outcome (e.g., Watanabe et al., 2010). With respect to clinical variables, however, the outcomes are mixed. There is some evidence that baseline levels of neuroticism is predictive of less improvement following CBT interventions (Schuurmans et al., 2009), and positive outcome expectancy tends to predict greater improvement across a range of psychotherapeutic interventions (Glass, Arnkoff, & Shapiro, 2001). For other clinical variables the research findings are mixed. For example, the extent to which baseline severity impacts on outcome differs across studies. A large study of the effectiveness of CBT for panic disorder (n = 161) found pre-treatment symptom severity predicted greater symptom severity at post-treatment, although substantial improvements were achieved (Kampman et al., 2008). While another study of the effectiveness of CBT for SAD (n = 57) reported that none of the symptom severity scores at baseline were a significant predictor of social functioning at post-intervention (Watanabe et al., 2010). Neither of these studies employed

a control group. Several studies have noted that comorbid depression does not predict anxiety symptom outcomes following CBT (e.g., Kampman et al., 2008; Schuurmans et al., 2009); whereas others have found that it adversely effects outcomes (Chambless et al., 2000; Chambless et al., 1997; Scholing & Emmelkamp, 1999; Watanabe et al., 2010). Psychiatric comorbidity appears to have little to no influence on CBT outcomes for anxiety disorders (Kampman et al., 2008; Mennin, Heimberg, & Jack, 2000; Ollendick, Öst, Reuterskiöld, & Costa, 2010) suggesting that individuals with severe anxiety psychopathology can improve to a comparable degree as those with less severe symptoms. Additional research identifying moderators may help inform practitioners' treatment stratification decisions. The issue of moderators will be further elaborated in Chapter 4.

The underlying logic behind this study was that if Clark and Wells' (1995) individual format is superior to the Heimberg and Juster (1995) group format then a Clark and Wells (1995) group format might maintain the therapeutic impact of the individual format while allowing a greater number of individuals to be treated. It was therefore hypothesised that the intervention would be associated with statistically significant decreases in the primary outcomes (specific aspects of social anxiety) and the secondary outcomes (general anxiety and depression). In addition, a broad range of potential socio-demographic (e.g., age, gender) and psychological moderators (depression) of treatment effects on the primary outcomes were examined.

3.2 Methodology

3.2.1 Participants. Participants were referred to the treatment programme via two routes: (1) from one of the three mental health teams operating within the study hospital itself, or (2) via a self-referral route. Most participants were self-referrals (70%), who had heard about the programme through word of mouth, the Internet, the service's own website, or from other mental health professionals. Self-referred participants were accepted once they

resided anywhere within the Republic of Ireland; the clear majority came from urban areas. Participants were selected based on meeting diagnostic criteria for social anxiety disorder (DSM-IV), which was established during a structured screening interview conducted by the senior psychologist in the team (Appendix 1). These interviews also helped gauge and facilitate client motivation and addressed concerns about engaging in group work. Exclusion criteria included psychotic illness, current active addiction problems, active symptoms of Post-Traumatic Stress Disorder (PTSD), Body Dysmorphic Disorder, social evaluative concerns related to medical illness (e.g., acne) or mental illness (e.g., having a diagnosis of schizophrenia), Autism, Asperger's Syndrome, and Schizoid, Schizotypal and Borderline Personality Disorders.

3.2.1 Social anxiety programme. The programme was held on a weekly basis over fourteen consecutive weeks within a treatment clinic and each session lasted approximately 3 hours; each group comprised 9 participants. Early sessions focused on psycho-education about the nature of social anxiety and treatment rationale. Later sessions moved into the more active cognitive and behavioural interventions (a session by session accounts is provided in Table 3.1), Video experiments were deemed an integral part of the intervention and were conducted on an individual basis in-session, with both the facilitators and other participants providing feedback. Participants identified their own role play and engaged in it both with and without their safety behaviour in place. Self-focused attention during social interactions was highlighted and attentional control skills to facilitate the development of an external focus during social encounters were practiced. All groups were facilitated by the same senior clinical psychologist, while Psychologists in Clinical Training (Doctoral level) provided co-facilitation.

Table 3.1
An outline of the main components of the CBGT programme

Session	Session Content
1	<ul style="list-style-type: none"> • Welcome – and discussion of group rules and commitments • Small group ice breaking exercise - introductions • Pros and cons of group format vs Individual – discussion • Overview of social anxiety • Review of personal goals & discussion of Specific, Measurable, Achievable, Relevant and Time-bound (SMART) goals • <i>Homework</i> – Written reflection on being in group, fear hierarchy, and development of personal goals
2	<ul style="list-style-type: none"> • Experience of previous session – small group discussion • Experience of returning to 2nd session – discussion • Review of personal goals • Understanding and lived experience of social anxiety <ul style="list-style-type: none"> ○ Situations that provoke anxiety ○ Judgements by others ○ Embarrassment • <i>Homework</i> – Enter 2-3 feared social situations and complete Clark & Wells formulation worksheets.
3	<ul style="list-style-type: none"> • Review of homework in small groups <ul style="list-style-type: none"> ○ focus on experience, process and difficulties – troubleshooting • Formulations <ul style="list-style-type: none"> ○ Anxiety – anatomy / physiology and evolutionary function. Role of threat perceptions ○ Time line – pre-event, event and post event ○ Detailed analysis of post-event processing • <i>Homework</i> – positive data log (maintained daily for entire programme)
4	<ul style="list-style-type: none"> • Review of positive data journal – small group discussion feeding into large group discussion • Formulations – Clark & Wells Model <ul style="list-style-type: none"> ○ Pre-event processing - discussion ○ Safety behaviours – identification • <i>Homework</i> – Identification of personal safety behaviours & pros and cons to safety behaviours
5	<ul style="list-style-type: none"> • Review of personal safety behaviours • Pros and cons of safety behaviours – mock team debate fashion • Formulation – felt sense (exploration & discussion) • <i>Homework</i> - Drawing of felt sense and written reflections of aetiology of social anxiety (personal histories)
6	<ul style="list-style-type: none"> • Review of drawings – participants presentation to group • Preparation for role-plays • Review of personal histories – open group discussion • Summary of personal formulations • <i>Homework</i> – identification of role-play scenario and list of relevant personal safety behaviours and expected features of anxiety

Table 3.1 continued

An outline of the main components of the CBGT programme

Session	Session Content
7	<ul style="list-style-type: none"> • Introduction to the concept of thinking styles & thought diary • Video role-play #1 (with and without safety behaviours / self-focus with feedback & discussion) • <i>Homework</i> – thought diary (Situation/Mood/ Thought)
8	<ul style="list-style-type: none"> • Review of homework – trouble shooting • Video role-play #2 • Introduction to attentional control training • <i>Homework</i> <ul style="list-style-type: none"> ○ thought diary (Situation/Mood/ Thought/ evidence for & against) ○ attentional control practice
9	<ul style="list-style-type: none"> • Review of homework – thought journals • Sample thought journals – evidence for and against in session • Video role-play #3 • <i>Homework</i> <ul style="list-style-type: none"> ○ thought diary (Situation/Mood/ Thought/ challenging cognitive distortion) ○ attentional control practice – assigned for remainder of programme
10	<ul style="list-style-type: none"> • Review of homework – thought journals • Sample thought journals – evidence for and against in session • Video role-play #4 & #5 • Compassionate self-talk • <i>Homework</i> <ul style="list-style-type: none"> ○ thought diary (Situation/Mood/ Thought/ challenging cognitive distortion) – assigned for remainder of programme ○ compassionate self-talk -
11	<ul style="list-style-type: none"> • Review of homework – though journals • Video role-play #6 & #7 • Introduction to behavioural experiments • <i>Homework</i> – personal behavioural experiment
12	<ul style="list-style-type: none"> • Review of homework – behavioural experiments • Video role play #8 • Introduction to relaxation techniques & Breathing • <i>Homework</i> – practice of relaxation techniques
13	<ul style="list-style-type: none"> • Review of personal goals • Video-role-play #9 • Introduction to assertiveness • Further discussion on changing thinking patterns • <i>Homework</i> – Behavioural experiments involving assertiveness
14	<ul style="list-style-type: none"> • Review and feedback on programme • Developing a personal recovery plan • Planning for setbacks.

3.2.3 Procedure. Over an 11-year period (1998-2009) data were collected before the start of the programme (Time 1), after participation in the programme (Time 2) and at 12-month follow-up (Time 3). Psychological measures were administered at each time point. Demographic details of age, gender and social economic status (SES) were also collected (Appendix 1).

3.3 Measures (Appendix 2)

3.3.1 Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998). The SIAS is an extensively used 20 item measure, which was designed to measure social interaction anxiety defined as "...distress when meeting and talking with other people" (Mattick & Clarke, 1998, p.457). It employs a 5 item Likert scale ranging from 0 (Not at all characteristic or true of me) to 4 (extremely characteristic or true of me). The full-scale score of the 20-point scale therefore ranges from 0-80 with higher scores indicating higher interaction anxiety. Three of the SIAS items are negatively worded to address potential acquiescence bias, and therefore reversed scored. Examples of SIAS items are: 'I get nervous if I have to speak with someone in authority (teacher, boss)'; 'I have difficulty making eye-contact with others'. A high level of internal consistency ($\alpha = .93$) was reported in the original study (Mattick & Clarke, 1998) and a similarly high level was found in the present study: $\alpha = .85$. Construct validity was evaluated by establishing correlations with other theoretically similar constructs, e.g., it correlates $r = .66$ ($p < .001$) with the social phobia subscale of the Fear Questionnaire (Marks & Mathews, 1979). The SIAS demonstrated significant changes in treatment groups when compared to no treatment controls (Mattick & Peters, 1988). The SIAS scale discriminates individuals with SAD from screened community volunteers (Heimberg, Mueller, Holt, Hope, & Liebowitz, 1992) and from individuals with other anxiety disorders (Brown et al., 1997).

3.3.2 Social Phobia Scale (SPS; Mattick & Clarke, 1998). The SPS - often perceived as a companion to the SIAS - is designed to measure anxiety levels experienced when one is scrutinized by others. The SPS assesses fears of being scrutinised during routine daily activities (eating, drinking, writing, etc.). It is a 20-item scale that employs a five item Likert scale ranging from 0 (not at all characteristic or true of me) to 4 (extremely characteristic or true of me). Thus, the full-scale scores range from 0-80 with higher scores indicating higher levels of performance-related anxiety. Examples of SPS items include: 'I become self-conscious when using public toilets'; 'I would get tense if I had to sit facing other people on a bus or a train'. Acceptable internal consistency ($\alpha = .89$) was reported by the scale's authors (Mattick & Clarke, 1998); a high level of reliability was found in the current study, $\alpha = .88$. Construct validity was evaluated by establishing correlations with other theoretically similar constructs, e.g., $r = 0.69$ ($p < 0.00$) with the social phobia subscale of the Fear Questionnaire (Marks & Mathews, 1979). The SPS demonstrated significant changes in treatment groups when compared to no treatment controls (Mattick & Peters, 1988). The scale discriminates SAD sufferers from screened community volunteers (Heimberg et al., 1992) and from individuals with other anxiety disorders (Brown et al., 1997).

3.3.3 Fear of Negative Evaluation Questionnaire-Revised (FNE-R; Ehlers and Clark, 1998 unpublished study). The FNE-R is a 39-item questionnaire that provides a measure of fear of negative evaluations by others, expectation of negative evaluation, and the avoidance of evaluative situations. The FNE-R employs a 5 item Likert scale ranging from 0 (not at all characteristic or true of me) to 4 (extremely characteristic or true of me). The full-scale score of the 39-point scale therefore ranges from 0-156 with higher scores indicating higher evaluative concerns. Seven of the FNE-R items are negatively worded and therefore reversed scored. Examples of FNE-R items are: "When in a social situation, I worry that I may be boring or uninteresting; "If someone is evaluating me, I tend to expect

the worst”. The FNE-R has an acceptable internal reliability ($\alpha = .94$) (e.g., Fayoutt et al., 2007) and a Cronbach’s α value of .93 was found in the present study.

3.3.4 Safety Behaviours Questionnaire (SBQ; Clark, Butler, Fennell, Hackman, McManus, & Wells, 1995 unpublished study). The SBQ is a 28-item inventory assessing a range of typical safety behaviours used by individuals to conceal their anxiety from others. The SBQ employs a 4 item Likert scale ranging from 0 (never) to 3 (always) and therefore the range is 0-84. Examples of SBQ items are: “position yourself so as not to be noticed”; “avoid talking about yourself”. Higher scores reflect a greater reliance on safety behaviours during social encounters. A Cronbach’s α value of .80 was found in the present study.

3.3.5 Social Cognitions Questionnaire (SCQ; Wells, Stopa, & Clark, 1993 unpublished study). The SCQ is a 22-item inventory that evaluates both the frequency and intensity of cognitions typically associated with social anxiety. The SCQ employs a 5 item Likert scale ranging from 1 (thought never occurs) to 5 (thought always occurs when I am nervous) for the frequency of cognitions and an 11-item percentage scale ranging from 0% (I do not believe this thought) to 100% (I am completely convinced this thought is true). Examples of SCQ items are: “I will be unable to speak”; “I will babble or talk funny”. High scores reflect higher frequency and intensity of cognitions. Responses were averaged to produce an overall frequency score (a Cronbach’s α value of .90 was found in the present data) and an overall intensity score (Cronbach’s $\alpha = .91$).

3.3.6 Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988). The BAI is a 21-item scale that measures the common symptoms of anxiety in adults, e.g., “Numbness or tingling” and “Unable to relax”. The BAI employs a 4 item Likert scale ranging from 0 (not at all) to 3 (severely, I could barely stand it) and thus a range of 0-63.

Higher scores reflect greater anxiety. The BAI has established robust psychometric properties with a high internal consistency ($\alpha = .92$) (Beck et al., 1988) and the Cronbach's α was .90 in the current data.

3.3.7 Beck Depression Inventory-2nd Edition (BDI-II; Beck et al., 1996). The BDI-2 is a 21-item inventory that assesses symptoms of depression over the previous two weeks, e.g., “Sadness” and “Loss of Pleasure”. Each item is then rated on its own individualized Likert scale ranging from 0-3 and therefore the range is 0-63. For example, the Sadness item ranges from 0 (I do not feel sad) to 3 (I am so sad or unhappy that I can't stand it). Higher scores reflect greater depression. The BDI-II is supported by extensive psychometric literature ($\alpha = .93$) (Beck et al., 1996) and in the present study Cronbach's α was .90.

3.4 Data Analysis

Following receipt of ethical approval (See Appendix 3), data were inputted in Statistical Package for the Social Sciences (SPSS) version 25 and repeated measures ANOVA, with Sidak *post hoc* tests, determined the significance of changes over time. Effect sizes were calculated using changes in mean scores divided by the baseline Standard Deviation (*SD*). In line with previous research examining moderators of treatment for social anxiety (Chambless et al., 1997; Scholing & Emmelkamp, 1999), residual change scores assessed each clinical, demographic and psychological predictor's effect on treatment outcome at both t2 and t3. Residual gain scores control for both initial differences between patients and for measurement error associated with the repeated use of the same scale (Steketee & Chambless, 1992). McNemar's test determined the significance of changes in categorical variables over time.

Following Oei and Boschen (2009), those with a pre-treatment BAI score of 11 or more were examined to see if any reported a clinically significant change of 10 points. A similar criterion was used with the BDI-II. Based on data (in preparation) from the authors' normative samples of 350 healthy community participants, the Reliable Change Index (RCI; Jacobson & Truax, 1991) was estimated to determine reliable change in the other measures. Clinical significance was defined as exceeding the RCI and a greater likelihood of being in the normal distribution than being in the clinical distribution; this method is recommended when distributions are overlapping (Evans, Margison, & Barkham, 1998).

3.5 Results

3.5.1 Sample characteristics. The mean age of the 252 participants was 32.8 years ($SD = 9.3$, range 19-66). Additional demographic details of the sample are provided in Table 3.2.

Table 3.2
Demographic details for sample

	n	(%)
Gender		
Male	127	(50%)
Female	125	(50%)
Age Category		
Under 30	126	(50%)
Over 30	124	(50%)
Location		
Urban	194	(78%)
Rural	56	(22%)
Marital Status		
Single	185	(73%)
Married	52	(21%)
Separated/Divorced	5	(2%)
Other	10	(4%)
Socio-Economic Status		
Managerial and professional occupations	64	(26%)
Intermediate occupations	68	(28%)
Small employers and own account workers	20	(8%)
Lower supervisory and technical occupations	16	(7%)
Semi-routine and routine occupations	28	(11%)
Unemployed	21	(9%)
Student	29	(12%)

Note: n varies between 252 and 250 owing to missing data

The completion rate of those who finished the fourteen-week programme was 94% (N = 236). Those who dropped out (n = 16) of the programme or only completed time 1 data (n = 34) were not significantly different to completers on any demographic or psychological measure. Reasons for dropping out of the treatment programme were predominantly due to external life circumstances (e.g., changing work, immigration, death in family); however, some participants dropped out due to group issues such as feeling overwhelmed or reporting that the group did not meet their needs. Of the 236 who completed the programme, 202 provided time 2 data (86%), and 93 (39%) provided follow up data. Those who provided data at all three time points were not significantly different at t1 to those who provided data at t1 only or t1 and 2 only.

3.5.2 Changes in psychological variables over time. A significant main effect of time was found for all variables (Table 3.3).

Table 3.3
Changes in psychological variables over time

	Pre		Post		12 months		Effect Size partial η^2
	M	SD	M	SD	M	SD	
SIAS	52.55	12.76 ^a	40.14	17.69 ^b	38.20	15.65 ^b	.56
SPS	39.08	14.42 ^a	26.59	14.05 ^b	23.64	14.47 ^b	.62
Fear Negative Evaluation	104.01	24.64 ^a	77.05	29.84 ^b	71.79	31.86 ^b	.62
Social Behaviour Questionnaire	42.51	8.50 ^a	32.25	9.94 ^b	34.25	10.68 ^b	.43
Social Cognitions: Frequency	3.25	0.71 ^a	2.43	0.72 ^b	2.36	0.80 ^b	.54
Social Cognitions: Belief	55.92	19.20 ^a	35.36	18.01 ^b	34.91	23.23 ^b	.56
BAI Anxiety	21.16	10.95 ^a	13.11	8.04 ^b	11.40	8.33 ^b	.41
BDI Depression	20.33	10.20 ^a	10.33	9.49 ^b	10.94	9.61 ^b	.55

M = Mean. SD = Standard Deviation

Note: Different superscript = significant difference between means, $p < .001$

Post hoc analysis revealed a consistent pattern: pre-intervention (t1) scores were significantly higher than both post-intervention scores and 12-month follow-up scores for all measures. There were no significant differences between post-intervention and 12-month

follow-up scores. Of note, the effect sizes associated with the changes from pre to post were quite large, ranging from 0.74 to 1.21 (see Table 3.4).

Table 3.4.
Effect sizes (Cohen's *d*) for changes and rates of clinically significant changes (CSC) in variables over time

	Pre – post		Pre - 12 months	
	<i>d</i>	CSC %	<i>d</i>	CSC %
SIAS	0.97	30	1.12	33
SPS	0.87	28	1.07	37
Fear Negative Evaluation	1.10	42	1.31	51
Safety Behaviour Questionnaire	1.21	30	0.97	33
Social Cognitions: Frequency	1.15	45	1.25	48
Social Cognitions: Belief	1.07	39	1.09	46
BAI Anxiety	0.74	50	0.89	54
BDI Depression	0.98	60	0.92	54

d = Cohen's effects size, CSC = Clinically significant change

Table 3.4 reveals a high rate of clinically significant changes for both general anxiety and depression, with over half of the participants so classified. For example, 59% were classified in moderate to severe range on the BAI at time 1, with the rate significantly falling to 32% ($\chi^2 = 53.15, p < .001$) at time 2 and 24% ($\chi^2 = 30.63, p < .001$) at time 3. A similar pattern emerged for depression: moderate to severe depression decreased significantly from 57% at t1 to 18% at t2 ($\chi^2 = 63.92, p < .001$), and 15% at time3 ($\chi^2 = 34.57, p < .001$). Between 40 to 50 % of participants made clinically significant improvements on the FNE and SCQ. For the SSC, SIAS and SPS approximately one third made significant changes in the clinically favourable direction.

3.5.3 Moderators of treatment effects. Initial levels of depression moderated changes in all variables in the short term, such that those with the highest levels of depression reported less post-treatment gains on the primary outcomes: SIAS ($r = -.19, p < .005$), SPS ($r = -.17, p < .05$), FNE ($r = -.22, p < .005$), , SSB ($r = -.25, p < .005$), SCQ Frequency ($r = -$

.19, $p < .05$), and SCQ Belief ($r = -.16$, $p < .05$). No other significant moderating effects were found for the primary outcomes.

3.6 Discussion

The findings of this study strongly suggest that CBGT based on Clark and Wells' (1995) model is effective in a general clinical adult mental health setting. Moreover, the range of effect sizes reported, and rates of clinically significant change compare favourably with previous literature (e.g., McEvoy, 2007; Mörtberg et al., 2007; Stangier et al., 2003). Of note the specific anxiety disorder measures were more sensitive to change than the general mood measures. Furthermore, the largest changes (Cohen's $d > 1$) over treatment were found in relation to specific aspects of social anxiety, namely social safety behaviours, social cognitions, and fear of negative evaluations. Moreover, gains were found over a wide range of psychometrically robust measures that assessed core features of Clark and Wells' (1995) model of SAD; the findings support the proposition that the model can be successfully incorporated into group treatment settings with robust outcomes. The study also supports research (e.g., Gaston, Abbott, Rapee, & Neary, 2006; McEvoy, 2007) demonstrating that a treatment model that was originally found successful in well-controlled research conditions can be successfully replicated and is effective in real-life clinical settings. The 6% dropout rate from the programme, which compares favourably with the dropout rates reported in other real-life settings (e.g., 18% reported by McEvoy, 2007), suggests that its format was acceptable to most participants. The modest dropout rate found might also reflect the importance of robust screening procedures.

The finding that there was a significant reduction in depression severity is also promising. Furthermore, in line with Scholing and Emmelkamp (1999), depression was found to moderate the effectiveness of the intervention in the short term: those who were high on depression showed less treatment gain. Although such effects were generally small,

they support Chambless et al.'s (1997) recommendation of concurrent treatment of social phobia and depression for the *more* depressed clients. In the present group, participants with mild to moderate depression responded well to treatment that focussed exclusively on social anxiety; consequently, such clients need not be excluded from CBGT participation.

NICE guidelines for the treatment of social anxiety do not recommend group-based intervention. While the guidelines recognised that it could be successful in terms of outcomes, it contends that it is difficult to recruit socially anxious users and is less cost effective than individual CBT. For example, studies note that close to half of those with social anxiety who are scheduled for treatment either fail to commence or to complete treatment (Coles, Turk, Jindra, & Heimberg, 2004). Issakidis and Andrews (2004) reported a pre-treatment attrition rate of approximately one-third. Furthermore, those who have social impairments are less likely to remain engaged in follow-up appointments in mental health services (Killaspy, Banerjee, King, & Lloyd, 2000). Such research suggests that services have significant potential to enhance service uptake and retention among this population. Advertisement of a community-based CBGT through local GP practices, media campaigns combined with a dedicated websites/social media platform may represent a means to attract referrals in contexts where uptake is poor. If such approaches were successful, CBGT could be an efficient means to meet the increased demands placed on under-resourced services.

However, the present authors' experience is that recruitment to the CBGT programme is not problematic. The programme has a waiting list of 100-120 individuals at any one time; most of the applicants are self-referring. In this context CBGT helps address the high level of service demand. In addition, as noted earlier, group therapy has unique therapeutic ingredients, and contrary to NICE guidelines, there may be a value in considering group treatment as a viable option (Bjornsson et al., 2013).

While the authors of the NICE guidelines utilized sophisticated economic modelling to determine cost issues, it evaluated group intervention based on 30 hours, 2 therapists and

6 clients (10 hours per service users) (NICE 2012, table 20 p. 172). The present group (42 hours, 2 therapists and 9 clients) works out at 9.3 hours per service user. Individual cognitive therapy based on Clark and Wells' model is equivalent to 21 hours per service user. The optimal model of CBGT remains to be determined; for example, shorter group sessions may prove equally effective. Furthermore, a formal economic analysis of the cost-effectiveness of different treatment modalities requires empirical examination.

3.7 Treatment implications

CBGT was associated with good clinical outcomes and a high level of client acceptability (high completion rates). Although treatment gains were maintained for at least 12 months, the 12-month follow-up data are based on less than half of the original treatment group. Such a sample may be biased in terms of their current functioning. In an additional longitudinal follow-up study, using a sample from the same treatment centre, the large treatment effects at post-intervention were maintained at long-term follow-up on identical measures of SAD, anxiety and depression (Fogarty, Hevey, & McCarthy, 2019). Data was collected before the program (t1, $n = 457$), after the program (t2, $n = 369$) and at follow-up (t3, $n = 138$), representing a response rate of 33%. The average time since completion of the CBGT for SAD programme was 4.5 years (range: 9 months – 12 years).

The CBGT approach also provides an opportunity to utilize group processes. There is a body of research which has explored the general therapeutic advantages and disadvantages associated with both individual and group formats (e.g., Yalom & Leszcz, 2005). And there are specific therapeutic advantages and disadvantages associated with CBGT and individual CBT. The most obvious advantage to groups is the capacity to offer treatment to more individuals in a given time period. Yalom (1995) identified eleven therapeutic factors associated with group based interventions; (a) instillation of hope, (b) universality, (c) imparting information, (d) altruism, (e) corrective recapitulation, (f)

socializing, (g) imitative behaviour, (h) interpersonal learning, (i) group cohesiveness, (j) catharsis and (k) existential factors. In terms of this study, participants regularly commented on the reduced sense of isolation and enhanced solidarity that group membership offered. The recognition of similarities in others helped normalize their experiences of social anxiety. Imitative behaviour (modelling the coping strategies and perspective of others) and interpersonal learning (developing supportive interpersonal relationships) may be particularly important with respect to social anxiety. Moreover, group participation provides a ready-made social format in which to take risks and break old patterns (natural exposure) plus it facilitates the replication of social situations for role-plays. Furthermore, accurate and honest feedback, encouragement and support by fellow participants can have a more powerful impact on members than that coming from health professionals and possible encouraging social comparisons may be made (Heimberg, Juster, Hope, & Mattia, 1995).

The group format can also provide unique advantages from a CBT perspective. For example, Heimberg, Salzman, Holt, and Blendell (1993) argue that a group setting facilitates greater self-awareness as it provides the opportunity to observe cognitive distortions in others, which then enables the recognition of personal cognitive distortions, and group members can be used as co-therapists.

In the present group, participants readily commented on these benefits of group participation. They also commented on the style of facilitation that worked best for them – firm but supportive. The use of humour was also highlighted as an ‘essential’ ingredient. It is possible that these factors may in fact facilitate attendance and the teaching of cognitive strategies and exposure exercises. Participant feedback indicated high levels of satisfaction with the programme. Taube-Schiff, Suvak, Antony, Bieling, and McCabe (2007) found that increases in group cohesive ratings over the course of the treatment significantly predicted post-treatment social phobia scores.

However, there are also distinct disadvantages of group-based approaches; the danger of one person dominating the group, the development of sub-groups, differential recovery rates that are used for unhelpful comparisons, the potential to lapse into small talk, the reluctance to discuss shameful core beliefs, less attention to individual issues, becoming overwhelmed and the subsequent intensification of avoidance behaviours (Scholing & Emmelkamp, 1993), the increase in self-consciousness associated with perceived critical observers, the potential for group members to reciprocally confirm their negative beliefs (Stangier et al., 2003) and then there are the logistical issues associated with pulling a group together (time, dates, venues, etc.). These factors represent fundamental challenges in providing group therapy sessions. However, if CBGT and individual CBT were equally effective, then busy, over-stretched therapists could offer intervention to more individuals by adopting a group format.

3.8 Limitations

The lack of a control group undermines casual inference regarding treatment effectiveness. The use of a control group in future studies would be beneficial. Second, all data were self-reported and although the use of self-report scales is common in routine clinical practice, such measures may be subject to biased responding (Sato & Kawahara, 2011). Furthermore, while participants were requested not to alter any medication intake or attend alternative treatments during the programme this was not strictly monitored and thus may have influenced client outcome. Most participants were self-referred and may therefore represent a less avoidant and more motivated subset; indeed, the very low dropout rate is consistent with high levels of engagement with the intervention. Furthermore, those completing all three data points may represent a biased sample; although the response rate is in keeping with rates reported elsewhere in the literature the findings from the current sample may not generalise to the wider SAD population. The reasons for dropping out of the

CBGT programme were not systematically recorded; although the reasons noted included a mixture of external life events and issues related to the CBGT programme, future research should routinely collect data on dropouts to inform service delivery.

Despite the practical limitations inherent in clinical practice research, such research conducted in naturalistic clinical settings provides useful guidance in bridging the often-wide gap between efficacy research and the effectiveness of interventions in clinical services.

3.9 Conclusion

Given the high completion rate, a CBGT intervention is acceptable to participants. The strong effect sizes, rates of clinically significant change and the 12-month maintenance of benefits across a wide range of measures testify to the effectiveness of CBGT for social anxiety. While rates of clinically significant change compare favourably with previous literature (e.g., McEvoy, 2007; Mörtberg et al., 2007; Stangier et al., 2003) they still only range from 33-54% across a range of measures at twelve month follow up (see Table 3.4). This means that 46-67% do not attain clinically significant change from their participation. In keeping with other findings (e.g., Scholing & Emmelkamp, 1999) initial levels of reported depression was found to moderate the effectiveness of the intervention in the short term: those who were high on depression showed less treatment gain. A greater understanding of what impeded some group members from achieving clinically significant change (the fundamental goal of therapy) would facilitate more strategic treatment planning. Likewise, a greater understanding of factors that enable clinically significant change would also facilitate more strategic treatment planning. Chapter 4 will explore several potential moderators and mediators that maybe responsible for impeding and facilitating therapeutic progress respectively.

Chapter 4: Moderators and Mediators

4.1 Introduction

Psychological studies generally focus on measuring whether an intervention works or not using specific self-reported outcome measures. While it is important to know if a psychological intervention is effective, it is also important to know which parts of the intervention work and for whom they work. The National Institutes of Health (NIH) (2015) called for a focus on personalized medicine, also known as precision medicine. It argues that producing guidelines for the selection of treatments that are expected to yield the greatest efficacy - based on an individual's baseline characteristics - should have a significant impact on improving the effectiveness of mental health treatments. To achieve this objective, the NIH contends that research needs to focus on revealing pre-treatment variables (e.g., baseline demographics, clinical characteristics) that have the power to predict treatment intervention outcome. An awareness of such moderators is useful in identifying subgroups of individuals who will respond differentially to one treatment over another, thereby facilitating treatment decisions and optimizing outcomes (Hollon & Najavits, 1988; Simon & Perlis, 2010). Such knowledge of subgroups is also important because it can spur further research to find out what works for that group so that they are not marginalized.

This chapter will look at several potential moderators (anger, alexithymia and fear of positive evaluation) and mediators (shame and safety behaviours) that might influence the therapeutic progress made by participants in a Clark And Wells' (1995) based CBGT programme. While the efficacy and effectiveness of CBGT for SAD has been well established many participants still fail to benefit. While, the study outlined in chapter 3 produced effect sizes ranging from 0.74 to 1.21 the rates of clinically significant change range from 33-54%. Despite robust clinically significant effect sizes a significant proportion of participants failed to achieved CSC (48-67%). McEvoy (2007) found around one-third

achieved CSC in his CBGT intervention. Other studies have reported similar disappointing findings (e.g., Mörtberg et al., 2007; Stangier et al., 2003).

As described earlier (see section 3.1) a moderator is a variable that affects the direction and/or strength of the relation between an independent variable (e.g., CBGT vs. control group) and a dependent variable (e.g., Social Anxiety) (MacKinnon et al., 2007). Two inspirations guided the choice of moderators under review here. One is based on the author's clinical experience of facilitating over 70 CBGT groups for SAD. Group participants presenting with anger issues, or with a limited ability to express themselves, or struggling with accepting positive validation by fellow group members, seemed to struggle with participation in group interventions and achieved poorer outcomes from their participation in the CBGT programme. Related to these observations, it was highlighted in Chapter 2 that Clark and Wells (1995) had emphasised avoidant safety behaviours, and self-focussed attention as critical factors in undermining exposure work. For individuals with SAD, safety behaviours are said to assume an essential role in defending against the firm conviction that social interactions will result in painful embarrassment and rejection (Clark & Wells, 1995). Experiential avoidance is a key self-regulatory mechanism promoted by Acceptance and Commitment Therapy (ACT), and believed to be involved in the development of a wide variety of mental health issues (Hayes et al., 2016). It is broadly defined as the unwillingness to stay in contact with unwanted internal experiences, such as emotions, thoughts, memories and bodily sensations and therefore, might underlie unhelpful avoidance behaviours. A number of studies have identified a relationship between experiential avoidance and a predisposition to social anxiety (e.g., Papachristou, Theodorou, Neophytou, & Panayiotou, 2018). While experiential avoidance refers to the intolerance of unpleasant internal experiences, it may also represent a more avoidant behavioural component as it involves attempts to evade such experiences (Papachristou, et al., 2018). Given this, theoretical perspective, psychological traits that might facilitate either

behavioural or experiential avoidance and thereby undermine efforts at behavioural exposure work were of interest.

4.2 Moderators

4.2.1 Anger. Anger is defined as an emotional state characterized by tension and hostility arising from frustration, real or imagined injury by another, or perceived injustice while aggression is considered the behaviour that can be associated with it (VandenBos & American Psychological Association, 2015). Hostility, in contrast, is understood as a more 'attitudinal' trait that involves general negative views towards others (Buss & Perry, 1992). Anger may be particularly likely if thoughts focus on themes of revenge, the fairness of social events, or the fairness of others' actions (DiGiuseppe & Froh, 2002).

The association between anger and social anxiety has been extensively evaluated. According to numerous studies, individuals with SAD had a propensity to suppress the expression of anger (Erwin, Heimberg, Schneier, & Liebowitz, 2003; Moscovitch, McCabe, Antony, Rocca, & Swinson, 2008; Spokas et al., 2009; Werner, Goldin, Ball, Heimberg, & Gross, 2011). This may reflect the experiential avoidance of intense emotional state. Kashdan and Collins (2010) found that individuals with SAD also experience more frequent anger than their non-socially anxious peers. A study by Erwin et al. (2003) found that individuals with SAD had higher scores, when compared with normal controls, on the State Trait Anger Inventory (STAXI; Spielberger, 1988) subscales: state anger, trait anger, angry temperament, and angry reaction. This would indicate that at least a subset of individuals with SAD may experience difficulties with anger.

Kachin, Newman, and Pincus (2001) identified two subsets of individuals with SAD: one that was characterized by unassertiveness, exploitability, and submissiveness (the

theoretically expected perception of social anxiety) while the other subset was characterized by anger, hostility, and mistrustfulness. Individuals with friendly-submissive interpersonal problems achieve better outcomes in CBT therapy than individuals who present with hostile-dominant problems (Borkovec, Newman, Pincus, & Lytle, 2002). These findings suggest that standard CBT approaches may need to be adapted to improve outcomes for hostile-dominant participants. While the link between social anxiety and anger is generally accepted, the mechanism by which they are linked is still much debated. One of the more commonly expressed views is that both social anxiety and anger are provoked by perceived negative evaluation and thus perceived social rejection (Alden & Wallace, 1995; Leary et al., 1988). This anger has sometimes been labelled as grievance anger (Tedeschi & Felson, 1994). According to Averill (1983) anger is primarily evoked during social interactions due to obstructed interpersonal goals, i.e., social acceptance. Doubts about the capacity to achieve social acceptance (and a sense of belonging) can evoke a sense of social rejection, which has been showed to provoke anger in socially anxious individuals (Breen & Kashdan, 2011; Leary, Twenge, & Quinlivan, 2006).

It may be that the line between feeling anger and acting on it (i.e., aggression) is blurred for some individuals with SAD. They may perceive a danger in expressing anger as it is considered too strong a way to convey information (Keltner & Haidt, 2001), and it has too much potential to generate interpersonal conflict (Averill, 1983), which escalates the likelihood of negative social evaluation and social rejection. Thus, individuals with SAD may experience anger as problematic and expend effort and energy to manage and suppress it (Kashdan et al., 2010), or it may be that any emotional expression is considered a sign of weakness by individuals with SAD and therefore needs to be rigorously and constantly controlled (Spokas et al., 2009). Ironically, if this anger is openly expressed it may increase the real or perceived threat of further negative evaluation.

One of the hallmarks of social anxiety is the tendency to engage in post-event rumination (i.e., post-event processing) and individuals with SAD are less likely to manage efforts at distraction from rumination following anxiety-provoking social events relative to their non-anxious peers (Joormann, Dkane, & Gotlib, 2006; Mellings & Alden, 2000). Rumination is a term used to describe the cognitive experience of repetitive, aversive, and uncontrollable thoughts (Segerstrom, Stanton, Alden, & Shortridge, 2003). Rumination involves the focusing of attention on a perceived provocation and thinking about the provocation repeatedly. Therefore, an inability to let go ruminating on perceived social rejection merely fuels on-going feelings of anger (Weber, Wiedig, Freyer, & Gralher, 2004). Moreover, individuals who use rumination as an emotion regulation strategy are in fact more likely to experience anger and therefore rumination is generally considered an ineffective strategy for dealing with anger (Martin & Dahlen, 2005). Interestingly, Kashdan and Roberts (2007) report that individuals with SAD and co-morbid depression are more likely to engage in post event rumination. Moscovitch et al. (2008) found that the associations between anger expression and social anxiety were largely eliminated when depression was included as a covariable. Trew and Alden (2009) broke rumination into two subsets: brooding and reflective pondering based on the Ruminative Responses Scale (RRS; Nolen-Hoeksema & Morrow, 1991). They speculated that brooding (with its explicit negative judgemental quality) would foster greater anger experience and greater outward expression of that anger while reflective pondering (reflective with relatively little self-judgement) would generate less anger that would more likely be suppressed. In a sample of undergraduates (n = 363) they found that brooding fully mediated the association between social anxiety and trait anger and partially mediated the association between social anxiety and outward anger expression, while reflective pondering partially mediated the relationship between social anxiety and anger suppression.

Breen and Kashdan (2011) believed that the tendency of individuals with SAD to suppress might be explained by individual tendencies towards *experiential avoidance* (EA). Experiential avoidance can be defined as;

“...the phenomenon that occurs when a person is unwilling to remain in contact with particular private experiences (e.g., bodily sensations, emotions, thoughts, memories, behavioural predispositions) and takes steps to alter the form or frequency of these events and the contexts that occasion them” (Hayes et al., 2016).

This is basically the same as Erwin et al.'s (2003) rationale; an aversion to emotional discomfort. Breen and Kashdan (2011) study attempted to examine *when* and *how* anger is suppressed or expressed in individuals with SAD. They noted, like the previous authors, that anger was a common reaction to perceived rejection and this association was magnified for individuals with SAD. Furthermore, their findings suggest that a state-like tendency towards experiential avoidance (EA) moderated the relation between social anxiety and the suppression of anger, i.e., individuals with low social anxiety and low state experiential avoidance reported less anger suppression after perceived rejection compared to individuals reporting low social anxiety and high state experiential avoidance. However, contrary to expectations, individuals with high social anxiety engaged in high anger suppression regardless of their level of state experiential avoidance. Accordingly, those who experience intense emotions as disturbing will be more likely to suppress them (Breen & Kashdan, 2011).

Erwin et al. (2003) hypothesized that more difficulties in anger experience and expression would be associated with greater attrition and poorer response to Heimberg and Becker's (2002) CBGT treatment for social anxiety; i.e., act as a moderator. However, they also speculated that anger experience and expression styles might improve *because* of CBGT. Their study found that individuals with SAD who *did not complete* treatment

endorsed higher scores on the STAXI (Spielberger, 1988) subscales of trait anger, angry temperament, and angry reaction. With respect to improvement in anger profiles among treatment completers, they found significant reductions in the trait-anger and expression-in (suppression). Finally, they found that higher pre-treatment scores on expression-in was correlated with significantly higher post-treatment scores on the SIAS (Mattick & Clarke, 1998), i.e., group participants did not do as well. In contrast, angry temperament, anger-out, and anger control were not significant predictors of any post-treatment measure of social anxiety. They also found that higher pre-treatment scores on angry reaction was significantly correlated with poorer post-treatment outcomes on the Brief Fear of Negative Evaluation Scale (BFNE; Leary, 1983) and the SPS (Mattick & Clarke, 1998).

The core fear of individuals with SAD is that they will say or do that will elicit a negative judgement and evoke embarrassment and/or shame. Tangney, Wagner, Fletcher, and Gramzow (1992) found that the propensity to experience shame was positively correlated with anger arousal, resentment, irritability, a tendency to blame others for negative events, and indirect expressions of hostility. They argued that anger and the tendency to resentfully blame others, is evoked in response to the overwhelming painful experience of shame. Moreover, anger is likely to provide some *avoidance* from the self-condemning, and debilitating experience of shame (Miller, 1985).

Erwin et al. (2003) is the only study that evaluated the potential moderating role of anger in response to Heimberg and Becker's (2002) CBGT for SAD and they found that higher expression-in and angry reaction scores were correlated with less reduced post-treatment social anxiety scores. This primary study will replicate the Erwin et al. (2003) but using a Clark and Wells' (1995) informed CBGT and the STAXI-II (Spielberger, 1999). It should be noted that the Erwin et al. (2003) study was correlational and was not designed to investigate causal relationships. However, they speculated that anger may operate as an

avoidance mechanism, distancing participants from other group members and negatively impacting on trust, rapport and expectancy for treatment outcome. In addition, they posited that they may have perceived the group therapist as controlling or critical thus interfering with their capacity to benefit from the group. It is therefore predicted that trait anger will negatively moderate social anxiety outcomes for the participant in CBGT for SAD, and in particular for participants who score high on anger suppression.

4.2.2 Alexithymia. Fukunishi, Kikuchi, Wogan, and Takubo (1997) found alexithymia to be present in 58% of individuals with SAD. The personality construct alexithymia (which literally means “lacking words for feelings”) was originally conceived by Nemiah, Freyberger, and Sifneos (1976) and is characterized by difficulty identifying and describing internal emotional states, externally oriented thinking and a limited imaginal capacity. Moreover, difficulty in distinguishing and appreciating the emotions of others was seen to negatively impact on the development of interpersonal relationships. It was also viewed as increasing the risk of developing various mental health disorders (Haviland, Louise Warren, & Riggs, 2000). A more recent conceptualization considers alexithymia to be a global impairment in emotional processing resulting in restricted emotional expression and recognition (Lane, Sechrest, Riedel, Shapiro, & Kaszniak, 2000). Both definitions agree that alexithymia is a deficit in emotional processing. Parker, Taylor, and Bagby (2001) found alexithymia to be strongly inversely correlated with emotional intelligence, which has been defined as the capacity to recognize, understand and manage our emotions especially when under stress and the capacity to recognize, understand and influence the emotions of others (Goleman, 1995).

Alexithymia, whilst not formally classified as a mental disorder, is believed to be present in approximately 10% of the general population (Taylor, Bagby, & Parker, 1997).

Major depression has a well-established relationship with alexithymia: 41-50% of individuals with depression have alexithymia (Kim et al., 2008). There is much debate in the literature whether alexithymia is a stable personality trait sometimes referred to as primary alexithymia or a state dependent phenomenon (e.g., caused by the distress of social anxiety) also known as secondary alexithymia with numerous studies supporting both positions. Saarijärvi, Salminen, and Toikka (2006) have argued that alexithymia represents both a stable personality trait and a state-dependent phenomenon. Alexithymia provoked by emotional distress is regarded as a maladaptive emotional regulation strategy, as the diminished self-awareness and externally oriented thinking style may reflect the *avoidance* of unwanted internal experiences (Taylor et al., 1997). In a recent study alexithymia was found to be associated with low private self-consciousness, high *experiential avoidance* and greater use of suppression (Panayiotou, Leonidou, Constantinou, & Michaelides, 2018). Panayiotou et al. (2018) also found that experiential avoidance and to a lesser degree low self-consciousness and suppression mediated the relationship between alexithymia and social anxiety. They conjectured that that low self-awareness in alexithymia may be related to increased avoidance of internal experiences, which they considered a maladaptive emotional regulation strategy that only works in the short term. In another study individuals with SAD and high levels of alexithymia (i.e., Toronto Alexithymia Scale; TAS-20 scores \geq 61; Bagby, Parker, & Taylor, 1994) had more severe symptomatology, higher comorbidity and functional impairment than individuals with low levels of alexithymia (i.e., TAS-20 scores $>$ 61); this association was stronger when comorbid major depression was present (Ertekin, Koyuncu, Ertekin, & Özyıldırım, 2015).

Given the psychological profile of alexithymia it is often advised in the literature that individuals with alexithymia are less responsive to psychotherapy, especially psychodynamically oriented psychotherapy. Rufer et al.'s (2010) review of empirical studies (n = 7) concluded that there was growing evidence that individuals with alexithymia exhibited a

limited response to insight-oriented psychotherapy. The difficulties identifying and describing emotions, the lack of desire for introspection and the capacity to trigger negative counter-transference are seen as the rationale for this (e.g., Krystal, 1979; Ogrodniczuk, Piper, & Joyce, 2005). However, some recent research suggests that alexithymia has no negative impact on the outcome of CBT (e.g., Rufer et al., 2006; Spek, Nyklíček, Cuijpers, & Pop, 2008). It is argued that because CBT focuses on behavioural principles and practical cognitive skills, rather than insight, that this is understandable (Rufer et al., 2010). In a review of the effect of alexithymia on psychotherapy outcomes Ogrodniczuk et al. (2011) concluded that cognitive and behavioural therapies, which tend to be structured, externally-focused, and concrete, may be particularly well suited to individuals with alexithymia.

In a study of CBGT for panic disorder, pre-intervention alexithymia (assessed using the TAS-20) failed to predict outcome at post-treatment or at follow-up (Rufer et al., 2010). Similar findings were found with alcohol use disorder (de Haan et al., 2012) and subthreshold depression (Spek et al., 2008). Moreover, total alexithymia levels were found to decrease following treatment (even when depression levels were controlled), which was attributed to significant decreases on the TAS-20 factors 1 (difficulty identifying feelings) and 2 (difficulty describing feelings); factor 3 (externally oriented thinking) remained unchanged (Rufer et al., 2010). It is worth noting that alexithymia was not targeted for intervention during this study. Rather, the acquisition of cognitive behavioural skills may have facilitated the development emotion regulation skills, including the ability to identify and describe feelings. Franzoni et al. (2013) in a study of females with eating disorders (n = 143) found alexithymia (TAS-20) to be strongly correlated with the Experience of Shame Scale (ESS; Andrews, Qian, & Valentine, 2002). They speculated that alexithymia may be conceptualized as a maladaptive-reactive construct to previous traumatic shaming experiences. Likewise, Suslow, Donges, Kersting, and Arolt (2000) found the TAS-20 to be strongly correlated to the shame-anxiety and shyness-embarrassment subscales of the

Shame–Guilt Scale (Battacchi, Codispoti & Marano. 1994). They also argued that the TAS-20 scale *difficulties describing feelings* did not measure impairment in describing emotions but aspects of shame anxiety and shyness. To date, none of the published studies examining the impact of alexithymia on CBT clinical outcomes have utilized randomization and a control group, making comment about causality problematic. In addition, none have looked specifically at the impact of alexithymia on group CBT for SAD. If alexithymia facilitates the experiential avoidance of shame, then it will likely encumber the behavioural exposure work that elicits embarrassment and shame. Therefore, it is anticipated that higher alexithymia will negatively moderate the capacity to gain from participation in CBGT for SAD, and in particular for participants who score high on external oriented thinking.

4.2.3 Fear of positive evaluation (FPE). Social anxiety is usually associated with fear of negative evaluation (FNE), which was first defined by Watson and Friend (1969) as "apprehension about others' evaluations, distress over negative evaluations by others, and the expectation that others would evaluate one negatively (p.449)". Human beings are typically considered to be social animals; we have a strong desire to be part of a group. The possibility that we may not be accepted by our peers evokes anxiety and therefore a certain level of anxiety in social interactions is to be expected. FNE has proven to be central to cognitive theorists' understanding of SAD (e.g., Clark & Wells, 1995; Rapee & Heimberg, 1997) and a primary focus of CBT approaches to the treatment of social anxiety (Heimberg & Becker, 2002). The connection between *excessive* fears of negative evaluation and social anxiety has been well established (Tozzi et al., 2004). The emotion elicited by negative evaluation by others is shame and embarrassment. Surprisingly, despite its long history of association with social anxiety, it has only become one of the diagnostic criteria for SAD in

the fifth and most recent edition of the APA (2013) manual. Even then it is only alluded to in terms of anxiety related to experiences of social rejection.

More recently, the possibility that anxiety may be influenced by a fear of positive evaluation has become a focus of attention. The term 'fear of positive evaluation' was first coined by Weeks, Heimberg, and Rodebaugh (2008). Their FPE construct was heavily influenced by Gilbert's (2001) psycho-evolutionary model of social anxiety. Gilbert's (2001) theory suggests that social anxiety is a mechanism that evolved to facilitate polite social interactions and therefore promote group cohesion. Gilbert's theory contends that individuals with SAD tend to perceive the social world within the framework of a social hierarchy, and within this hierarchy, to perceive themselves as ranking lower than others. Being of a lower social rank they then would experience anxiety (social) when interacting with an individual with a perceived higher social rank. However, according to Gilbert (2001) the possibility that their behaviour will be viewed positively and increase their social standing is typically avoided. An increased social status may challenge a more dominant member of the social ranking and lead to conflict; a conflict that might undermine a sense of belonging to the group and the inherent protection it provides. Submissive social behaviour (safety behaviours) would then be employed (e.g., avoiding eye contact) to reduce the likelihood of conflict. So, individuals with SAD may fear an increase in social rank because it could lead to conflict with more powerful others. Moreover, this new higher social ranking may need to be defended and they fear they may lack this capacity.

Weeks et al.'s (2008) interest in FPE was also influenced by the work of Wallace and Alden (1995, 1997). Wallace and Alden's (1995, 1997) understanding of the role of FPE in social anxiety was that it was simply a delayed fear of negative evaluation. They posited that positive social evaluation was an issue as it may lead others to have future higher expectation. If these higher expectations were then failed the result might be one of negative

evaluation and subsequent feelings of embarrassment and shame (Wallace & Alden, 1995, 1997). It may also be the case that discounting the positive, one of the more destructive cognitive distortions, also reduces the cognitive dissonance that is elicited by information that challenges a core sense of being fundamentally flawed.

Numerous studies have established a strong correlation between FPE and social anxiety in both general adult community samples (Levinson & Rodebaugh, 2012; Weeks et al., 2008; Weeks, Heimberg, Rodebaugh, & Norton, 2008; Weeks, Jakatdar, & Heimberg, 2010) and clinical populations (Fergus et al., 2009; Weeks, Heimberg, Rodebaugh, Goldin, & Gross, 2012). Unlike FNE, which has been correlated with a variety of other psychological disorders, FPE may be exclusive to social anxiety (Fergus et al., 2009; Weeks et al., 2008). Fergus et al. (2009) examined FPE in a clinical sample ($n = 133$) of adolescents and adults and found that individuals with SAD ($n = 51$) scored significantly higher on the Fear of Positive Evaluation Scale (FPES; Weeks et al., 2008) than individuals with a different anxiety disorder (e.g., GAD, panic disorder, OCD). However, more research needs to be done to establish if FPE is in fact exclusive to social anxiety.

FPE has also been correlated with FNE (Fergus et al., 2009; Weeks et al., 2008; Weeks & Howell, 2014) and confirmatory factor analysis on the items of both the FPE Scale (FPES; Weeks et al., 2008) and the Brief FNE Scale-Revised (BFNE-R; Carleton, McCreary, Norton, & Asmundson, 2006) have demonstrated that FPE and FNE are distinct factors. The independence of FPE and FNE on both theoretical and empirical levels is consistent with Gilbert's (2001) psycho-evolutionary models of social anxiety. FNE and FPE serve two distinct yet adaptive social goals: to avoid either a downward or upward movement in social rank. Moreover, according to Weeks et al. (2012) when individuals are successfully treated for social anxiety, their FPE improves.

Heimberg et al.'s (2010) Cognitive Behavioural Model of SAD, a revision of Rapee and Heimberg's (1997) earlier model, includes the idea of FPE in their conceptualization of social anxiety. The original model posited that individuals with SAD feared negative evaluation and were therefore attentive to external signs of negative evaluation. The revised model asserts that individuals with SAD fear evaluation *in general*, both positive and negative, and they are vigilant for external signs of either. Similarly, Weeks and Howell (2014) proposed a model of social anxiety which they labelled the 'bivalent fear of evaluation model' which incorporated the fear of evaluation in general, both positive and negative. A key principle within this bivalent fear of evaluation model is that FPES may cause disqualification of positive social outcomes, which may in turn serve as a mental safety behaviour in the face of the threat of positive evaluation.

Given the nature of CGBT for social anxiety and its emphasis on role plays and the honest feedback on performance by group participants it is possible that participants experience this positive feedback as aversive. This in turn might provoke both behavioural and experiential avoidance. However, this honest feedback is viewed as important to challenging the biased view of individuals with SAD about their social performance. In this context, difficulties with validation and praise could potentially hinder therapeutic progress. Therefore, it is expected that higher levels of fear of positive evaluation will negatively influence the capacity to gain from participation in CBGT for SAD.

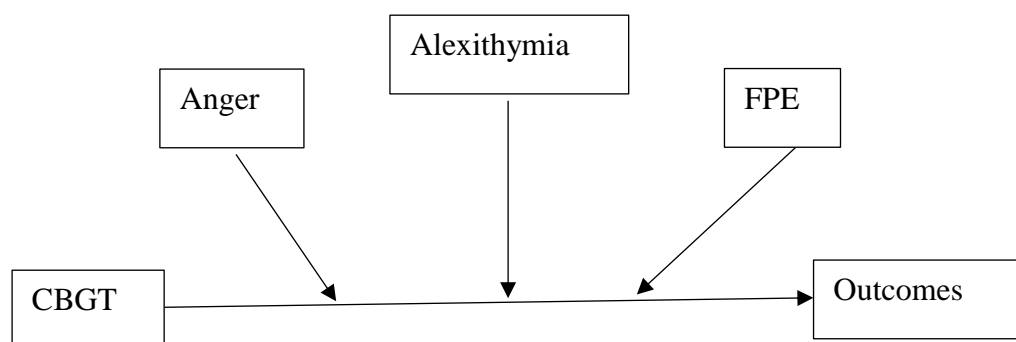


Figure 4.1 Moderators.

4.3 Mediators

As noted earlier, psychological studies generally focus on measuring whether an intervention works or not. This is achieved by looking at how changes in the independent variable (e.g., intervention vs control) might effect changes in the dependent variable (e.g., levels of social anxiety). It is less often the case that researchers investigate *how* interventions exert their effects on an outcome. An examination of how an intervention works is an investigation into mediation, which seeks to understand the process and mechanisms that produce outcomes. Mediation models, rather than focusing on the *direct* relationship between the independent variable and the dependent variable, seek to understand how a mediator variable may have an *indirect* effect on the relationship between the independent variable and the dependent variable, and possibly explain some or indeed all of the changes noted in the dependent variable (MacKinnon et al., 2007). The analysis of mediation effects is important for the improvement of psychological theory and the fine-tuning of clinical practice. It helps us to understand and take advantage of the key processes involved in generating positive treatment outcomes.

As with the choice of moderators two motivations also guided the choice of mediators to evaluate in the primary study. The first is also based on clinical experience. Group participants who seemed to be able to develop more self-compassion and self-acceptance seemed to have better outcomes from their participation in the group. One research question is whether the experience of group membership facilitated a more self-compassionate stance among these participants, by ameliorating internal shame? The seminal work of Yalom (1995) with respect to the benefits of group based interventions, also influenced the decision to consider shame as a potential mediator. The action-urge associated with shame is to hide and be silent; shame is challenged by self-disclosure. Client disclosure has long been considered an essential aspect of psychotherapy across a wide range of

theoretical perspectives in both a group and individual setting (Farber, Berano, & Capobianco, 2004). Disclosure has been positively linked with therapy outcome (Farber & Hall, 2002). Yalom (1995) maintained that client self-disclosure is the core process that underlies all therapeutic factors in group therapy. Client self-disclosure is related to group cohesion (Tschuschke & Dies, 1997). One of the most common reason for failure to disclose is shame or embarrassment (Kelly & Yuan, 2009). Self-disclosure in a group setting may facilitate the recognition of similarities in others, which may facilitate the normalization of shame-based experiences. Moreover, acceptance of the group members to that which is disclosed facilitates self-acceptance (Yalom, 1995). Hedman et al. (2013) demonstrated that CBGT for individuals with SAD was effective at reducing internal shame. Might a reduction in internal shame be a mediator to improved social anxiety outcomes?

The decision to choose safety behaviours was more straightforward. From clinical observation, participants who worked more diligently at reducing avoidant safety behaviours, and who took therapeutically informed risks, and engaged in more approach behaviours, seemed to achieve better outcomes. Moreover, as highlighted in Chapter 2, Clark and Wells (1995) have emphasised avoidant safety behaviours as a critical factor in undermining exposure work. However, there is a question as to which category of safety behaviour (if any) might be more important in mediating outcomes. The next two sections will explore the potential roles of internal shame and safety behaviours in social anxiety.

4.3.1 Shame. While Clark and Wells' (1995) model of SAD tends to emphasize the role of cognitive processes in the maintenance of the disorder, the core emotional concern of individuals with SAD is that they will say or do something that will result in humiliation or embarrassment (APA, 2013). The emotion of embarrassment is often used interchangeably with the emotion of shame. There is much discussion and varied opinion in

the literature about the distinction between shame and embarrassment (and guilt). However, the conclusion drawn here is that although there is some overlap, embarrassment and shame are distinct constructs.

Embarrassment and shame are both self-conscious emotions; they require self-reflection and self-evaluation. Embarrassment is the feeling of discomfort experienced when some aspect of behaviour or public presentation is, or threatens to be, witnessed by others and judged negatively. The perception is that this social exposure is likely to undermine a more desired image of ourselves (Edelmann, 1981). The focus is on our socially *inappropriate* act – ‘I *did* something silly or strange’ – being witnessed and negatively evaluated. Embarrassment revolves around the social situation - to be embarrassed, one's actions must be revealed to others. Clark and Wells (1995) stress the importance of how an individual believes they are perceived by an audience and that social anxiety occurs when we make the judgment that we have failed to meet the social expectations of others.

Shame is generally considered a more painful feeling than embarrassment (Elster, 1999). It results from self-evaluation about oneself as a person and is associated with more global and enduring negative attributions about the *self* – ‘I *am* wrong or reprehensible’. Shame can be defined as the intense and at times overwhelming feeling associated with belief that the self is globally flawed, and is based on the anticipated, imagined, or actual negative evaluations of others, and is accompanied by the desire to escape or disappear (Andrews et al., 2002; De Rubeis & Hollenstein, 2009). Shame differs from embarrassment in that it relates to our core character and not merely to our social character or image. According to Tangney and Dearing (2004) shame is to a large extent directed towards the self rather than towards specific behaviours.

More recently shame has been conceptualized as being either external or internal (Kim, Thibodeau, & Jorgensen, 2011). External shame refers to the affect that is based on

our concerns about how our actions are perceived by others and the concern that it could lead to rejection or criticism. Cognitive models of SAD (e.g., Clark & Wells, 1995; Heimberg, Brozovich, & Rapee, 2010) clearly involve processes like this definition of external shame. In contrast, internal shame (Kim et al., 2011) is defined as shame based on how we view ourselves. Internal shame refers to when we are both the judge and the judged (Matos, Pinto-Gouveia, & Gilbert, 2013).

Many empirical studies have established a relationship between certain types of parental behaviours and in particular childhood emotional abuse and the internalization of shame (e.g., Gilbert, 2000; Kim, Talbot, & Cicchetti, 2009). Likewise, there have been many studies showing a link between childhood abuse and the later development of social anxiety (Bandelow et al., 2004; Bruce, Heimberg, Blanco, Schneier, & Liebowitz, 2012; Knappe, Beesdo-Baum, Fehm, Lieb, & Wittchen, 2012). It is theorized that early experiences of child abuse are associated with the development of social anxiety through the internalization of a shame-based cognitive–affective schema, characterized by an global sense of inadequacy and inferiority (Shahar, Doron, & Szepeswol, 2015), or logged in autobiographical memory as conditioned emotional responses (Gilbert, 2003). Negative judgement is often at the heart of emotional abuse. According to Shahar et al. (2015) such a shame-based cognitive–affective schema is connected with perceiving oneself to be lower in social rank and risking social exclusion, and consequently is consistent with Gilbert’s (2001) psycho-evolutionary approach to the aetiology of social anxiety. Others argue that child abuse results in the disruption of an individual’s sense of connectedness – a very important concern for individuals with SAD – which facilitates the development of a sense of shame (e.g., Schore, 1998). Believing themselves to be fundamentally flawed individuals with SAD primary concern is having these flaws exposed in social encounters. According to Frost, Glossner, and Maxner (2010) individuals with SAD are often self-critical and perfectionistic and this is seen as a coping mechanism against the risk of being exposed as flawed. Safety behaviours

are behaviours employed to conceal perceived deficits in social presentation and hiding is considered the primary action tendency of shame (Tangney & Dearing, 2004). However, self-criticism only leads to increased shame and maintains a negative social self-perception.

While a number studies that have found internal shame and social anxiety to be strongly correlated (e.g., Hedman, Ström, Stünkel, & Mörtberg, 2013; Matos et al., 2013) the nature of the relationship between these two states have not been systematically studied (Shahar et al., 2015). Experiential avoidance is one of the few variables that has been posited as involved in the relationship between shame and social anxiety. Experiential avoidance is viewed as a maladaptive emotion regulation strategy and in a study by Kashdan et al. (2010) experiential avoidance was positively related to social anxiety. A mediational study exploring the relationship between experiential avoidance, shame and social anxiety found that that internalized shame did not directly influence social anxiety but did so indirectly via experiential avoidance (Lee, Kim, & Park, 2014). They concluded that internalized shame may *indirectly* affect social anxiety. Lee et al. (2014) stressed the importance of understanding the mechanisms behind the influence shame has on social anxiety in order to develop effective prevention and treatment programmes and suggest that Acceptance Compassion Therapy (ACT) with its focus on self-compassion may be an effective intervention for shame and experiential avoidance.

Hedman et al. (2013) demonstrated that both a Clark and Wells (1995) informed individual CBT and CBGT and for individuals with SAD were effective at reducing internal shame in addition to measures of social anxiety. However, Hedman et al. (2013) also found that changes in internal shame were almost ($r = .42, p = .06$) correlated with changes in social anxiety outcome measures (LSAS-SR) in the group format but negatively correlated ($r = -.17, p = .47$) in the individual format. They also found a strong correlation, for the group format only, between initial internal shame scores and pre-to post-treatment change in social

anxiety, i.e., higher initial shame scores were correlated with better outcome ($r = .42, p = .02$). The authors speculated that internal shame played a role both as mediator and moderator of outcome but only among participants with SAD in the CGBT. The findings of the Hedman et al. (2013) study are correlational only. Hedman et al. (2013) also postulated that exposure to other individuals with SAD in group CBT has a large therapeutic impact on those with high levels of internal shame as they become aware that other people have the same social fears. The primary study will employ mediational analysis and predicts that internal shame will act as a mediator (not a moderator) and will be responsible for reducing scores on social anxiety outcome measures.

Arditte, Morabito, Shaw, and Timpano (2016) examined how internal shame and depression might explain the relationship between social anxiety and suicide risk factors of thwarted belongingness and perceived burdensomeness, which are interpersonal states associated with Joiner's (2005) interpersonal theory of suicide. In their mediational analysis they found that the indirect effects of social anxiety on thwarted belongingness and perceived burdensomeness through internal shame were significant. Thwarted belongingness is self-explanatory; the fundamental need for social connection – for a sense of belonging - has been unmet resulting in social isolation and loneliness. Perceived burdensomeness is defined as the opposite of social competency (Van Orden, Witte, Cukrowicz, & Joiner, 2012). Arditte et al. (2016) reported also that social anxiety symptoms were positively correlated with perceived burdensomeness ($r = .51$) and thwarted belongingness ($r = .48$). Social connectedness has been negatively linked to social anxiety (Lee, Dean, & Jung, 2008). If CBGT for SAD can have a positive effect on reducing internal shame, there is reason to believe it might also help reduce associated depression and suicidality.

4.3.2 Safety behaviours. Safety behaviours are behavioural and internal cognitive processes employed by individuals with SAD to prevent some specific feared socially-related outcome from occurring (e.g., covering one's face to conceal possible blushing). Safety behaviours - while they are ultimately self-defeating - assume a vital role for individuals with SAD; they are believed to be the only protection from certain social humiliation and rejection. However, safety behaviours are held to be a significant factor in the maintenance of social anxiety in numerous ways. Avoidance – both subtle and gross – inhibits social experiences that might provide socially anxious individuals with unadulterated 'exposure' to social situations and the discovery that negative predictions of themselves and others are biased, if not entirely false; more realistic beliefs about social situations are not facilitated. Moreover, acting as if social situations are dangerous merely reinforces threat orientated beliefs about social situations (e.g., Clark, 2001; Wells et al., 2016). Perceived success in social situations may be attributed to safety behaviours rather than personal ability (Clark, 2001; Wells et al., 2016). Safety behaviours may inadvertently elicit negative evaluation - the very outcome they are employed to avoid; when certain safety behaviours are employed (e.g., limited eye contact) they can inadvertently result in coming across as less friendly, attractive and likable (Alden & Bieling, 1998). Finally, because of the energy and concentration they require, these strategies more often serve to heighten anxiety and increase self-focused attention.

Clark and Wells (1995) recommend that social anxiety-related safety behaviours be grouped into two subtypes: avoidance and impression management. Avoidance strategies are employed to reduce involvement in a social situation (e.g., minimal verbal responses) while impression management strategies are utilized to control the impression (i.e., judgement) others have of us (e.g., mentally rehearsing conversations in the belief it will improve fluency). Helbig-Lang and Peterman (2010), referencing the work of Rachman and Hodgson (1980), proposed another two-dimensional classification of safety behaviours:

behavioural and cognitive strategies. These could be further divided into those that provided a preventative versus a restorative function. Preventative safety behaviours are designed to prevent future distress or anxiety (e.g., mentally rehearsing conversations in advance of social contact), while restorative safety behaviours are designed to reduce the experience of anxiety (e.g., speaking only to familiar people). The primary study employed the Clark and Wells' (1995) safety behaviour classification system. Following a systematic review of the literature on safety behaviours Helbig-Lang and Petermann (2010) concluded that safety behaviours are disadvantageous and should be eliminated over the course of therapy.

In their original study (n = 8) Wells et al. (1995) found that reducing safety behaviours (versus not) resulted in superior reductions in social anxiety, greater reductions of belief in feared outcomes, and higher participant ratings of exposure effectiveness. Since then, numerous studies have replicated this finding (e.g., McManus et al., 2008; Ulrich Stangier, Heidenreich, & Schermelleh-Engel, 2006). McManus et al. (2008) found that individuals with high levels of social anxiety employ *more* safety behaviours than individuals with low levels of social anxiety, and that both high and low social anxiety groups believe their safety behaviours to be helpful. Moreover, active engagement with safety behaviours (and self-focused attention) resulted in participants (a) feeling more anxious, (b) believing they appeared more anxious, (c) believing more that their negative predictions had occurred during social interactions, and (d) that their overall social performance had been poor. Moreover, while engaging in safety behaviours, their conversational partners also perceived them to be more anxious, less likable and perceived their overall performance to be poorer (McManus et al., 2008). In another study, female undergraduates without clinically elevated appearance concerns (n = 99) were randomly assigned to a week of purposely increasing the frequency and duration of appearance-related safety behaviours (Summers & Cogle, 2018). Participants demonstrated greater social anxiety symptoms, threat interpretations, and stronger beliefs about the importance of

appearance relative to a control group. The authors concluded that engagement safety behaviours may play an instrumental role in the maintenance and development of social anxiety symptoms and related maladaptive cognitions and argue for the utility of safety behaviour reduction (and self-consciousness) as a therapeutic strategy in the treatment of social anxiety (Summers & Cogle, 2018). Taylor and Alden (2010) compared the relative effectiveness between exposure only versus exposure plus safety behaviour reduction and found the latter significantly more effective (e.g., reduction on negative self-judgement). They also found that safety behaviour reduction mediated changes in terms of improved self-judgements and more positive future social predictions. Moreover, in a RCT by Kim (2005) behavioural exposure with a cognitive explanation was statistically superior to exposure with an extinction rationale and simple exposure. Kim (2005) utilized a simple 11-point rating scale (to assess anxiety and belief in fear outcome) as pre and post intervention measures.

A small number of studies have looked at mediation in terms of safety behaviours and social anxiety severity. Desnoyers et al. (2017) examined the role of self-focused attention and safety behaviours in social anxiety across two treatment modalities: CBGT and mindfulness and acceptance-based group therapy (MAGT), and a control group. Safety behaviours mediated the association between self-focused attention and social anxiety, and that self-focused attention mediated the association between safety behaviours and social anxiety severity. Desnoyers et al. (2017) concluded that intervention designed to reduce safety behaviours would lead to reduced self-focused attention, which would in turn result in reductions in social anxiety. They also concluded that intervention designed to reduce self-focused attention would lead to reduced safety behaviours, which would also result in reductions in social anxiety. Therefore, for individuals with SAD who experienced difficulty dropping safety behaviours, attention control training (cultivating an external focus) might prove more productive. Likewise, for individuals with SAD who encountered difficulty with cultivating an external focus, safety behaviour manipulation might be an alternative option.

Furthermore, addressing both self-focused attention and safety behaviours might provide for the optimal outcomes. In another RCT comparing individual cognitive therapy (CT) and interpersonal therapy (IPT), cognitive interventions aimed at the reduction in self-focused attention and safety behaviours resulted in a significant reduction in social anxiety symptoms (Schreiber et al., 2015). Hedman et al. (2013) analysed the data from two separate randomised controlled trials (n = 97) comparing individual cognitive therapy (CT) to cognitive behavioural group therapy (CBGT). They reported that ICT was superior to CBGT but also that the improvement noted in ICT was primarily mediated through reductions in avoidance and self-focused attention, while improvements noted in the CBGT group was primarily mediated through self-focused attention and in anticipatory and post-event processing.

As already has been noted, individuals with SAD employ a wide variety of safety strategies, e.g., avoidance, impression management. Plasencia, Alden, and Taylor (2011) examined the situational use of safety behaviours during managed social interactions and found avoidance to be associated with higher anxiety states during interactions and negative judgements from their conversational partner, while impression management was associated with a greater incapacity to correct future negative predictions. Moreover, perceived control appears to mediate the relationship between safety behaviours use and social anxiety: lower perceived anxiety control contributes to increased use of safety behaviours (Korte, Unruh, Oglesby, & Schmidt, 2015).

However, the general view that safety behaviours only provide a short-term reprieve from social anxiety (and therefore are inherently reinforcing) is challenged by the findings of Moscovitch et al. (2013). This study found that safety behaviours were strongly associated with a protracted recovery from elevated negative affect. Moscovitch et al. (2013) contend that self-concealment strategies, like avoidance, function to hide an individual's

flaws from public exposure *despite* the distress involved. They conjectured that concerns about the capacity to maintain this social mask – and the possibility of failure to do so – results in increased distress.

The primary study aims to explore the potential mediating role of safety behaviours in terms social anxiety outcome measures following CBGT. It hypothesizes that changes to behavioural avoidant-type safety behaviours will have significant mediating effects on outcomes in keeping with Clark and Wells’ (1995) emphasis on safety behaviours that interfere with exposure work.

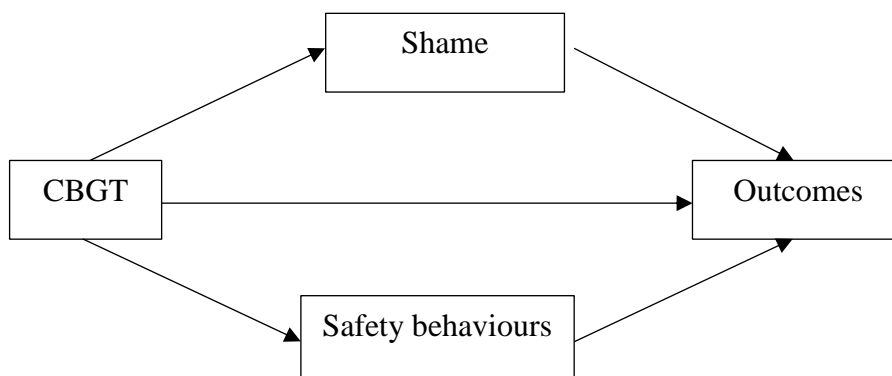


Figure 4.2 Mediators.

4.4 Conclusion

Three potential moderators and two potential mediators have been identified for evaluation in the primary study based on both an evaluation of the literature and clinical experience. Both FPE (and the distress this entails) and trait anger are viewed as aversive yet related emotional states to the experience of social anxiety. As such, they might be understood as aversive experiences to be suppressed, avoided or restricted. Alexithymia in this context is seen as an emotional regulatory strategy designed to facilitate experiential avoidance. Therefore, high levels of each is speculated to hindered therapeutic progress

through the process of behavioural and experiential avoidance.

It is also speculated that the core emotional state that individuals with SAD are most trying to avoid is that of internal shame; a sense of being fundamentally flawed. It is also suggested that safety behaviours, and in particular avoidant behaviours, are employed to offset the potential for social experiences that provoke a sense of internal shame. Therefore, it is hypothesized that any changes to internal shame and/or avoidant safety behaviours will mediate therapeutic outcomes. Moreover, it is argued that a group format provides an ideal therapeutic environment for shame reduction (through self-disclosure to witnesses other than therapists) and an ideal exposure-based environment for challenging avoidant behaviours.

The next chapter will detail the main hypothesis and secondary research questions of this primary study.

5.1 Introduction

The findings of the first preliminary study (discussed in Chapter 3) strongly suggest that CBGT based on Clark and Wells' (1995) model is effective in a general adult mental health clinical setting. Moreover, the range of effect sizes reported, and rates of clinically significant change compare favourably with previous literature (e.g., McEvoy, 2007; Mörtberg et al., 2007; Stangier et al., 2003). However, the lack of a control group in this first study undermined causal inference regarding treatment effectiveness. The primary study addresses this limitation by randomly assigning participants to either CBGT or control group.

5.2 Primary Group Effectiveness Hypothesis

1. Levels of social anxiety (SPIN, SIAS, SPS) will significantly reduce following CBGT when compared with controls.
2. Levels of Fear of Negative Evaluation (BFNE-R) will significantly reduce following CBGT when compared with controls.
3. Levels of secondary anxiety (GAD-7) and depression (PHQ-9) will significantly reduce following CBGT when compared with controls.
4. Levels of work and social functioning (WSAS) will significantly improve following CBGT when compared with controls.

5.3 Moderators

The primary study examines the moderating effects of trait anger, alexithymia and FPE on all primary and secondary outcome measures. As a follow-up to the study outlined in chapter 3 it will also examine the moderating effects of depression.

5.3.1 Anger.

Hypothesis: Levels of trait anger (STAXI-II) will significantly moderate the relationship between group (CBGT vs. control) and all primary (SPIN, SIAS, SPS, BFNE-R) and secondary outcome measures (FPES, TAS-20, STAXI-II).

5.3.1.1 Secondary related research questions

- i. Are the participant pre-intervention (t1) STAXI-II profiles similar to that obtained by Erwin et al. (2003)? Employing the original STAXI Erwin et al. (2003) reported significantly elevated scores the trait anger (T-Ang), Trait Anger/Temperament (T-Ang/T), Trait Anger/Reaction (T-Ang/R) Anger Expression-In (AX-I) and Anger Control-Out (AC-O) and significantly reduced scores on the Anger Control-In (AC-I) in their study of anger experience in a SAD population.
- ii. In the primary study does CBGT for SAD reduce anger?
- iii. Are trait anger scores correlated with fear of negative evaluation scores? As noted in Chapter 4, one of the commonly expressed opinions is that social anxiety and anger are provoked by perceived negative evaluation (Alden & Wallace, 1995; Leary et al., 1988).

5.3.2 Alexithymia. The primary study intends to address a gap in the literature and examine to see if alexithymia acts as a moderator to social anxiety outcomes following group CBT for SAD.

Hypothesis: Pre-treatment levels of alexithymia (TAS-20) will significantly moderate the relationship between group membership and all primary (SPIN, SIAS, SPS, BFNE-R) and secondary outcome measures (FPES, TAS-20, STAXI-II).

5.3.2.1 Secondary related research questions:

- i. What percentage of the sample have alexithymia (i.e., TAS-20 scores ≥ 61)?
- ii. Is alexithymia positively correlated with scores on measures of SAD symptomatology (SPIN SAIS, SPS & BFNE-R), and with scores on a measure of functional impairment (WSAS)?
- iii. Does CBGT for SAD reduce levels of alexithymia? Rufer et al. (2010) reported that alexithymia levels can, in fact, be reduced because of this intervention; in particular factors 1 (difficulty identifying feelings) and 2 (difficulty describing feelings).

5.3.3 Fear of positive evaluation. The primary study seeks to evaluate if FPE moderate's treatment outcomes.

Hypothesis: Pre-treatment levels of fear of positive evaluation (FPES) will significantly moderate the relationship between group membership and all primary (SPIN, SIAS, SPS, BFNE-R) and secondary outcome measures (FPES, TAS-20, STAXI-II).

5.3.3.1 Secondary related research questions:

- i. Are FPES scores correlated with the scores on social anxiety measures?
- ii. Are FPES scores correlated with fear of negative evaluation scores?
- iii. Does CBGT for SAD reduce scores on the FPES?
- iv. Are FPES scores positively correlated with safety behaviours scores?

5.3.4 Depression. It is acknowledged that depression is used primarily as a secondary outcome measure in the primary study. However, given the conflicting findings in the literature on this topic, and the findings that higher pre-treatment depression was correlated with less improvement in social anxiety outcome measures in the earlier non-randomized study (outlined in chapter 3) the decision was made to evaluate if depression (PHQ-9) might also moderate treatment outcomes.

Hypothesis: Pre-treatment levels of depression (PHQ-9) will significantly moderate the relationship between group membership and all primary outcome measures (SPIN, SIAS, SPS, BFNE-R) following CBGT.

5.4 Mediators

The primary study will also examine the potential *mediating* effects of internal shame (ISS; Cook, 1988) and safety behaviours on primary and secondary social anxiety outcomes from participation in a CBGT programme.

5.4.1 Internal shame. The primary study intends to examine the potential mediating role that internal shame plays in the outcome effectiveness of a group-based CBT intervention for SAD. It is also hypothesised that the core inferiority subscale will have the largest mediating effect.

Hypothesis: internal shame (ISS) will mediate the relationship between group membership and all primary (SPIN, SIAS, SPS, BFNE-R) and secondary outcome measures (FPES, TAS-20, STAXI-II).

5.4.1.1 Secondary related research questions:

- i. Are internal shame scores positively correlated with scores on all social anxiety measures?
- ii. Are internal shame scores correlated with safety behaviour scores – especially inhibiting/restricting behaviours (experimental avoidance)? Lee, Kim, and Park (2014) found that internalised shame indirectly influenced social anxiety via experiential avoidance. Experiential avoidance is likely facilitated by avoidant safety behaviours and hiding is considered the primary action tendency of shame (June Price Tangney & Dearing, 2004).
- iii. Does CBGT for SAD reduce internal shame scores (Hedman et al., 2013)?

5.4.2 Safety behaviours. The primary study also examines the potential mediating role that safety behaviours plays in the outcome effectiveness of a group-based CBT intervention. The measure used (SAFE; Cuming et al., 2009) has three subscales: Inhibiting Behaviour, Active Impression Management and Managing Physical Symptoms. The first two factors, inhibiting behaviours and managing physical symptoms, would likely be more important in terms of facilitating experiential avoidance and therefore reducing the therapeutic impact of exposure work.

Hypothesis: safety behaviour (SAFE) will mediate the relationship between group membership and all outcome measures (SPIN, SIAS, SPS, BFNE-R) and secondary outcome measures (FPES, TAS-20, STAXI-II).

The primary study also intends to explore which elements of safety behaviours – inhibiting behaviours, active impression management, managing physical symptoms – have the largest mediational effects.

5.4.2.1 Secondary related research questions.

- i. Are safety behaviour scores positively correlated with social anxiety scores?
- ii. Does CBGT for SAD reduce safety behaviour scores?

Chapter 6: Methodology

6.1 Introduction

This chapter will outline the research methodology that will be employed in order to address the research questions posited in Chapter 5.

6.2 Participants

Participants for the primary study were recruited from the Social Anxiety Ireland (SAI) waiting list, similar to the previous preliminary study described in Chapter 3. By the time this study was commenced the social anxiety programme had moved from its original hospital setting out to a community-based setting. All participants were self-referred and were offered a screening appointment and participation in the study on a first come first serve basis. All participants were adults, aged between 18 and 65 and Republic of Ireland residents. They were required to be reasonably proficient in the English language as all screening interviews (approximately 1-hour duration) and group interventions were conducted in this language. Detailed information sheets (See Appendix 4) outlining the nature of the study and consent form (See Appendix 5) were emailed / surface mailed to applicants simultaneously. They were delivered a minimum of four weeks prior to screening to allow participants adequate time to process the information and come to an informed decision with respect to consent. In addition, the purpose and rationale of the research was explained to each participant during the screening process; written informed consents were obtained at this screening stage from applicants.

Participants heard of the treatment programme through several avenues: (a) word of mouth, (b) radio interviews, (c) newspaper articles, but primarily via the (d) website (socialanxietyireland.com). This website was developed by SAI specifically for individuals

with SAD and to highlight the group interventions that SAI provide. The website receives on average 12,000 hits per month and has over 20,000 registered users. Participants largely self-refer to the treatment programmes via the website. Potential participants also complete the website online link to LSAS-SR (Liebowitz, 1987); the recommended cut off score of 60 or above on the LSAS-SR was used before a screening appointment was offered.

6.2.1. Procedure. Following receipt of ethical approval (See Appendix 6), applicants were screened until a pool of 20 females and 20 males was created; these were then randomly assigned (blocked on gender) to create two groups of 20 applicants with an even gender balance:

- the immediate group treatment (therapy group) 20 participants
- the delayed group treatment (control group) 20 participants.

All participants completed pre-group questionnaires (t1). The therapy group then received the established fourteen-week CBGT programme while the control group received usual care. The CBGT group completed the questionnaire pack (t2) immediately post treatment and the control group completed it at an equivalent time (i.e., 14 weeks post t1). The CBGT was of three hours' duration (with a 15-minute break) and continued for fourteen consecutive weeks.

6.2.2. Location. The group treatment room was within the SAI offices. Groups were held on a Wednesday and Thursday evening between 6pm-9pm.

6.2.3. Sample size. A minimum overall sample size of 100 participants was deemed necessary to ensure adequate statistical power.

Treatment effectiveness: A sample size of 50 per group (treatment vs. control) assessed at two-time points gives power of .80 to detect a small to medium sized effect ($f = .15$) as being statistically significant at the .05 level using mixed ANOVA (GPower; Faul, Erdfelder, Lang, & Buchner, 2007).

Moderation: A sample size of 50 per group (treatment vs. control) assessed at two time points gives power of .80 to detect a small to medium sized moderation (interaction of independent variable x moderator variable) effect ($f = .15$) as being statistically significant at the .05 level using multiple regression (GPower; Faul et al., 2007).

Mediation: A sample size of 50 per group (treatment vs. control) assessed at two time points gives power of .95 to detect a medium sized mediation effect ($f = .15$) as being statistically significant at the .05 level using multiple regression (GPower; Faul et al., 2007).

6.3 Assessment Procedure

The primary purpose of the assessment process was to ensure that applicants had a principal diagnosis of SAD. The criterion for a diagnosis of SAD was based on the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; APA, 1994). A structured clinical interview was developed for this study, which incorporated elements of three well established formal interviews (Appendix 7):

- The Anxiety Disorder Interview Schedule (ADIS) for DSM-IV client interview schedule (Brown, Barlow, & DiNardo, 1994).

- The Structured Clinical Interview for DSM–IV Axis I (SCID-1: First, New York State Psychiatric Institute, & Biometrics Research Department, 1997).
- The Structured Clinical Interview for DSM-IV Personality Disorders (SCID-11: First, 1997).

Additional elements were maintained from the original screening interview, which were deemed appropriate to this study. These included (a) biographical data, (b) medical history, (c) psychiatric history (including history of hospital admissions, received diagnoses and psychopharmacology), and (d) psychological treatment history.

6.3.1. Inclusion Criteria. The main inclusion criterion was a diagnosis of SAD (specific or generalized). The ADIS for DSM-IV subsection on Social Anxiety was employed to establish the primary inclusion criteria of Social Anxiety.

6.3.2. Exclusion Criteria. Given the nature of the service where this research was conducted exclusion criteria needed to be minimized. While literacy was desirable an inability to read or write was not considered an exclusion criterion for participation in the programme. The ADIS was utilized for its subsections on (a) Panic Disorder and Agoraphobia, (b) PTSD, (c) Substance misuse, (d) Bipolar Disorder, (e) Psychotic disorders, and (f) Depression. Applicants with Panic Disorder and Agoraphobia were excluded only if it was judged to be more clinically pronounced than social anxiety. Applicants with a diagnosis of Bipolar Disorder were excluded if their condition was deemed unstable and its symptom profile active. The same exclusion criteria were used for psychotic disorders – the symptom profile needed to be active, e.g., hallucinations, paranoia. Applicants with active substance misuse, active intrusive symptoms of PTSD and an active suicide potential related to Major Depression were excluded from participation in the group. To be deemed ‘inactive’,

applicants with a history of any of these presentations were required to be stabilized for a minimum of 6 months prior to group start date.

Applicants with Body Dysmorphia Disorder were excluded from the study based on their SCID-1 (First et al., 1997). Subsections from the SCID-11 (First, 1997) were used for screening out the following personality disorders (a) Schizoid personality disorder, (b) Paranoid personality disorder, (c) Schizotypal personality disorder and (b) Antisocial personality disorder.

The following were also excluded, and the presence of these disorders were established as part of the general clinical interview: (a) Learning disability, (b) Organic mental disorders, e.g., brain damage, dementia, and (c) Pervasive Developmental Disorders, e.g., Autistic Spectrum Disorder.

All other co-morbid anxiety disorders and personality disorders will be permitted to participate. Table 6.1 summarizes the exclusion criteria.

Table 6.1
Exclusion Criteria

Exclusion Criteria	Method
Active psychotic disorder e.g., paranoia	ADIS
Positive symptoms of schizophrenia	ADIS
Active substance misuse	ADIS
Unstable bipolar disorder	ADIS
Active suicidal potential	ADIS
Panic Disorder and Agoraphobia	ADIS
Body Dysmorphic Disorder	ADIS
Schizoid personality disorder	SCID-11
Paranoid personality disorder	SCID-11
Schizotypal personality disorder	SCID-11
Antisocial personality disorder	SCID-11
Organic mental disorders – e.g., brain damage	Clinical Interview
Pervasive development disorders	Clinical Interview
Panic Disorder and Agoraphobia	Clinical Interview

To control as much as possible for other potential confounding variables, the following criteria were also implemented. Applicants agreed where possible to refrain from engaging with any other form of psychotherapy while participating in the group; where such

engagement took place, the participants made the researcher aware of their psychotherapy. The use of psychotropic medication was permitted if the medication type and dose remained stable throughout their participation in the group intervention. The participants agreed to inform the researchers of such changes.

All assistant psychologists (n = 8) and psychologists in clinical training (n = 5) that assisted the screening interviews were trained and certified according to the procedures outlined by the developers of the ADIS-IV-L. This included review of the training manual and successful completion of a series of diagnostic interviews. Assistants were first allowed to observe a series of interviews conducted by the senior diagnostician (primary investigator) and then conducted interviews while being observed by the primary investigator. To become proficient to conduct interviews independently, the trainee needed to match the senior interviewer on three consecutive interviews regarding the principal diagnosis and presence of all additional current and lifetime diagnoses. The breakdown of how many each screened is outlined in Appendix 8.

6.4 Measures

Data were collected via a series of twelve standardized questionnaires, which were given to all participants; they took approximately 30 minutes to complete. These standardized questionnaires can be divided into:

- Outcome questionnaires (seven scales),
- Moderator questionnaires (three scales),
- Mediator questionnaires (two scales).

The seven outcome questionnaires assess core Social Anxiety symptoms and general psychological well-being and functioning (See Appendix 9). Three of them (SIAS, SPS and the BFNE-R) have are routinely used in the research literature to evaluate interventions for SAD. The remaining four questionnaires were added as recommended by the IAPT (2011) association in the UK for use in the evaluation of routine psychological care for social anxiety. The completion of these questionnaires is an integral and routine part of clinical psychological intervention. They all have been extensively used in outcome evaluation research and their psychometric properties (validity and reliability) have been established in the empirical literature.

Participants' responses were collected via an online Survey-Gizmo format and a protocol was developed to migrate the information collected to a secure SPSS file via Microsoft excel. A small number of questionnaires (n = 4) were completed in a pen and paper format – these were transposed to the online format on their behalf to facilitate ease of collation.

6.4.1 Screening measure.

6.4.1.1. Liebowitz Social Anxiety scale – Self Report (LSAS-SR; Liebowitz, 1987).

The 24-item LSAS-SR was designed to assess fear and avoidance in social interaction (11 items) and performance (13 items) situations. Items are rated on two separate (fear and avoidance) four-point Likert scales ranging from 0 (*none* and *never*, respectively) to 3 (*severe* and *usually*, respectively). Examples of LSAS-SR items include: “*participating in small groups*”, and “*eating in public places*”. The LSAS-SR yields a total score (Range 0-144), as well as separate scores for fear and avoidance of social interaction and performance situations.

Heimberg et al. (1999) reported the LSAS-SR to possess high internal consistency for the fear and avoidance of social interaction ($\alpha = .94$) and performance situations ($\alpha = .92$) scales. Fresco et al. (2001) compared the psychometric properties of the clinician-administered (LSAS-CA) with the self-report version (LSAS-SR), and reported them to be essentially identical. Among individuals with SAD, Cronbach's alpha for the total score for both formats was .95; alphas for the subscales ranged from .82 to .91. Fresco et al. (2001) also established strong correlations with other established measures of social anxiety (e.g., SIAS; $r = .71$ and SPS; $r = .61$) supporting its convergent validity and consistent with that reported in other published studies (e.g., Heimberg et al., 1999). The LSAS-SR also demonstrated robust discriminant validity with correlations with measures of depression (BDI; $r = .33$) being significantly lower than correlation with the SIAS and SPS (Fresco et al., 2001).

6.4.2. Primary outcome measures.

6.4.2.1. Social Interaction Anxiety Scale (SIAS) and the Social Performance Scale (SPS) (Mattick & Clarke, 1998). The psychometric properties of the SIAS and the SPS have been documented in section 3.3. Cronbach's alpha in the present sample was high for both the SIAS ($\alpha = .88$) and SPS ($\alpha = .92$).

6.4.2.2. Social Phobia Inventory (SPIN; Connor et al., 2000). The SPIN consists of questions, which evaluate fear (e.g., of people in authority, of parties and social events), avoidance (e.g., of talking to strangers, of speaking to people for fear of embarrassment), and physiological discomfort (e.g., blushing, or shaking in front of other people). Each of the 17 items is rated on a scale from 0 to 4: not at all, a little bit, somewhat, very much, and

extremely; higher scores correspond to greater severity of social anxiety. The full-scale score thus ranges from 0 to 68. Examples of SPIN items include: “*I am afraid of people in authority*”, and “*I am bothered by blushing in front of people*”.

The SPIN has an established internal consistency: Cronbach’s alpha ranged from .87 – .94 (Connor et al., 2000). Construct validity was primarily established by comparing scores for individuals with SAD (n = 148) with scores for normal controls (n = 68). Individuals with SAD obtained total SPIN means of 41.1 compared a mean of 12.1 in controls ($p < .001$). The recommended cut-off for the SPIN severity index is a score of 19 (Connor et al., 2000), higher scores reflecting clinically significant symptoms of social anxiety. Cronbach’s alpha in the present sample was .87.

6.4.2.3. Brief Fear of Negative Evaluation scale – revised (BFNE-R; Carleton et al., 2006). The original Fear of Negative Evaluation (FNE) scale is a commonly used measure of social anxiety (Watson & Friend, 1969). The BFNE-R (Carleton et al., 2006) is a revised version of the Brief Fear of Negative Evaluation scale (BFNE; Leary, 1983), which addressed methodological issues stemming from four reverse worded items by revising those items to be directly worded to facilitate convenient administration. It is a 12-item scale that employs a five-point Likert scale ranging from 1 (not at all) to 5 (extremely). The full-scale score ranges from 12–60 with higher scores indicating more intense fear of negative evaluation, which is a primary process of social anxiety. Examples of items of the BFNE-R include: “*Sometimes I think I am too concerned with what other people think of me*”, and “*I am frequently afraid of other people noticing my shortcomings*”.

The BFNE-R has high internal consistency ($\alpha = .97$) (Carleton, Collimore, & Asmundson, 2007). Construct validity was established by correlational analysis with numerous other established social anxiety scales including the SIAS (Mattick & Clarke,

1998) and the SPS (Mattick & Clarke, 1998); $r = .64$ and $r = .60$ respectively (Carleton et al., 2007). Cronbach's alpha in the present sample was .95.

6.4.3. Secondary outcome measures.

6.4.3.1. Patient Health Questionnaire-9 (PHQ-9; Kroenke, Spitzer, & Williams, 2001). The PHQ-9 is a self-administered measure that provides a measure of depression severity, making criteria-based diagnoses of depressive and other mental disorders. The PHQ-9 is a nine-item scale that scores each of the nine DSM-IV criteria for depression. It employs a four-point Likert scale ranging from 0 (not at all) to 3 (nearly every day). The full-scale score ranges from 0-27, with higher scores indicating more depression severity. It also provides a depression severity index score: 0-4 (none), 5-9 (mild), 10-14 (moderate), 15-19 (moderately severe), and 20-27 (severe). Individuals who score 10 points or above are reporting clinically significant symptoms of depression; this is referred to as meeting *caseness*. Examples of PHQ-9 items include: *"I have little interest or pleasure in doing things"*, and *"I have been feeling down, depressed, or hopeless"*.

The internal reliability of the PHQ-9 is excellent with a Cronbach's alpha of .89 (Kroenke et al., 2001). Strong correlations between PHQ-9 depression severity scores and functioning on all the six Medical Outcomes Study Short-Form General Health Survey (SF-20; Stewart, Hays, & Ware, 1988) subscales supported construct validity. The mental health subscales of the SF-20 demonstrated a particularly strong correlation (Kroenke et al., 2001). Cronbach's alpha in the present sample was .89.

6.4.3.2. General Anxiety Disorder 7 (GAD-7; Spitzer, Kroenke, Williams, & Löwe, 2006). The GAD-7 is considered a valid and efficient instrument for screening for General

Anxiety Disorder and assessing its severity in clinical practice and research. The GAD-7 is a seven-item scale, which employs a four-point Likert scale ranging from 0 (Not at all) to 3 (Nearly every day). The full-scale score ranges from 0-21, with higher scores indicating more severe anxiety. It also provides an anxiety severity index score: 0-4 (none), 5-10 (mild), 11-15 (moderate), and 15-21 (severe). Individuals who score 8 points or above on the GAD-7 are classified as having clinically significant symptoms of generalised anxiety. Examples of GAD-7 items include: over the last two weeks I have been bothered by, “*Not being able to stop or control worrying*”, and “*Worrying too much about different things*”.

The internal consistency of the GAD-7 is excellent with a Cronbach’s alpha of .92. Strong correlations between GAD-7 scores and functioning on all the six SF-20 subscales support its construct validity (Spitzer et., 2006). The GAD-7 also correlated strongly ($r = .72$) with the Beck Anxiety Inventory (Beck et al., 1988) and the anxiety subscale ($r = .74$) of the Symptom Checklist-90 (Derogatis, 1974). Cronbach’s alpha in the present sample was .90.

6.4.3.3: Work and Social Adjustment Scale (WSAS; Mundt, Marks, Shear, & Greist, 2002). The WSAS is a brief, reliable and valid measure of impaired social and work-related functioning. It is a self-report scale of functional impairment that can be tagged to a specific problem, e.g., social anxiety. The WSAS employs a nine-point Likert scale ranging from 0 (no impairment at all) to 8 (very severe impairment). The full-scale scores range from 0 to 40 with higher scores indicating more severe impairment. A WSAS score below 10 is associated with subclinical populations. A WSAS score between 10 and 20 is associated with significant functional impairment but less severe clinical symptomatology, while a WSAS score above 20 is associated with moderately severe or worse psychopathology. Examples of WSAS items include: “*Because of my social anxiety my ability to work is*

impaired”, and “*Because of my social anxiety my home management (cleaning, tidying, shopping, cooking, looking after home or children, paying bills) is impaired*”.

Cronbach's alpha measure of internal scale consistency ranged from .70 to .94 (Mundt et al., 2002). Construct validity was evaluated by establishing correlations with severity ratings on the Hamilton Rating Scale for Depression (Hamilton, 1960) and the Yale Browne Obsessional Compulsive Scale (Goodman et al., 1989) obtaining correlation scores of 0.76 and 0.61 respectively (Mundt et al., 2002). Cronbach's alpha in the present sample was .84.

6.4.4 Moderator measures. The moderator questionnaires have been extensively used in psychological research and clinical work and their psychometric properties (validity and reliability) have been established in the empirical literature. The moderators of interest in this research project were: the experience of anger and how it is managed, alexithymia, and fear of positive evaluation. (Appendix 10).

6.4.4.1 The State Trait Anger Inventory-II (STAXI-II; Spielberger, 1999). The STAXI-II is a 57-item scale, which measures the experience, expression and the control of anger. The STAXI-II consists of six scales, five subscales, and an Anger Expression Index, which provides an overall measure of the expression and control of anger.

The experience of anger, as measured by the STAXI-II is conceptualized as having two major components; i.e., state and trait anger. The state anger scale assesses the intensity of anger as an emotional state that is immediately provoked by perceived injustice and is understood as temporary; it includes three subscales (n = 15). This study is only interested in trait anger and therefore the 42 items constituting the trait anger scales have been used.

The trait anger scale measures how often angry feelings are experienced over time (n = 10); it includes two subscales anger temperament (T-Ang/T; n = 4) and anger reaction (T-Ang/R; n = 4). There are also an additional four scales: (a) anger expression out (AX-O; n = 8), (b) anger expression in (AX-I: n = 8), (c) anger control out (AC-O: n = 8), (d) anger control in (AC-I: n=8). A final anger expression index (Sum: AX-O + AE-I – (AC-O + AC-I) + 48) provides an overall measure of total anger expression.

The anger temperament (T-Ang/T) subscale defines anger that is experienced quickly and with little provocation while the anger reaction (T-Ang/R) subscale describes the tendency to become angry or agitated when criticized, when one receives negative feedback, or when one believes they are being treated badly. The Anger Expression-Out (AX-O) scale describes the extent to which anger is expressed in an outwardly undesirable and poorly controlled manner while the Anger Expression-In (AX-I) scale describes the extent to which anger is suppressed when angry or furious. Anger Control-Out (AC-O) is a measure of energy employed to monitor and control the physical or verbal expressions of anger while the Anger Control-In (AC-I) index measures the frequency of attempts to relax, calm down, and reduce angry feelings before they get out of control.

The full STAXI-II employs a four-point Likert scale ranging from 1 (not at all) to 4 (almost always). Potential full-scale scores range from 42–168. Examples of questions include in part 1: *“I am quick tempered”*, and *“I have a fiery temper”*, Part 2: *“I reduce my anger as soon as possible”*, and *“I am angrier than I am willing to admit”*. Alpha coefficient measures of internal consistency are uniformly high across all scales and sub scales (.84 or higher). The publishers of the STAXI-II do not provide community norms and despite its widespread use, there is scant research on the difference between clinical and non-clinical populations. This study used the norms provided by Lievaart, Franken, and Hovens (2016) because of recency, large sample and methodological rigor. Lievaart et al. (2016) found the

STAXI-2 had significant correlations with the Dutch version of the Aggression Questionnaire (Meesters, Muris, Bosma, & Schouten, 1996), signifying acceptable construct validity. In the present sample, acceptable levels of internal consistency were reported for each subscale of the STAX-II: T-Ang = .87; T-Ang/T = .91; T-Ang/R = .70; AX-O = .79; AX-I = .81; AC-O = .83; and AC-I = .86.

6.4.4.2 Toronto Alexithymia Scale-20 (TAS-20; Bagby et al., 1994). The 20-item TAS-20 is one of the most widely used instruments for assessing alexithymia in both research and clinical practice. The TAS-20 employs a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Factor analysis revealed a three-factor structure (a) difficulty identifying feelings (DIF) (n = 5 items), (b) difficulty describing feelings (DDF) (n = 7 items) and (c) externally oriented thinking (EOT) (n = 8 items). The full-scale scores range from 20-100 with higher scores indicating high levels of alexithymia. Examples of TAS-20 items include: *“I am often confused about what emotion I am feeling”* (DIF), *“It is difficult for me to find the right words for my feelings”* (DDF), and *“I prefer to analyze problems rather than just describe them”* (EOT).

The TAS-20 has demonstrated good internal consistency and test-retest reliability. The internal reliabilities of the full TAS-20 and its three were all $>.70$ with an overall Cronbach's alpha of .86 (Parker, Taylor, & Bagby, 2003). The test-retest reliability following a three-week gap was .77 (Bagby et al., 1994). The TAS-20 and each of its three subscales demonstrated significant negative correlation with measures of psychological mindedness, the openness to experience dimension in the NEO (Neuroticism, Extraversion, Openness) Personality Inventory, supporting its convergent validity (Bagby et al., 1994; Taylor et al., 1997). Cronbach's alpha in the present sample was .81 overall; DDF = .71; DIF = .82; EOT = .70.

The TAS-20 uses cutoff scoring: equal to or less than 51 = non-alexithymia, equal to or greater than 61 = alexithymia. Scores of 52 to 60 indicate possible alexithymia. According to findings of a study by Cox, Swinson, Shulman, and Bourdeau (1995) 28.3% of individuals with SAD were classified as alexithymic while mean score for this population were estimated as TAS-20 total score 54.07 (SD = 11.55).

6.4.4.3 Fear of Positive Evaluation Scale (FPES; Weeks et al., 2008) The FPES is a 10-item rating scale used to evaluate a respondent's fear of positive evaluation. Respondents are asked to consider individuals they do not know very well when completing items from the scale. It employs a 10-point Likert-scale, ranging from 0 (not at all true) to 9 (very true). The full-scale score ranges from 0–90 with higher scores indicating more intense fear of positive evaluation. Examples of FPES items include “*I generally feel uncomfortable when people give me compliments*”, and “*I feel uneasy when I receive praise from authority figures*”.

The FPES has demonstrated strong internal consistency both in undergraduate samples and clinical samples ($\alpha = .80$) (Weeks et al., 2008). The FPES had a moderate to strong correlation ($r = .59$) with the BFNE-R suggesting good convergent validity and a strong correlation ($r = .70$) with the SIAS suggesting acceptable concurrent validity (Fergus et al., 2009). Cronbach's alpha in the present sample was .78

6.4.5 Mediator Measures. The mediator questionnaires were chosen given their widespread used in psychological research and clinical work and their psychometric properties (validity and reliability) have been established in the empirical literature (See Appendix 11).

6.4.5.1 Internalized Shame Scale (ISS; Cook, Kostecki-Dillon, Wilson, Coccimiglio, & Inc, 2001). The ISS is a 30-item self-report inventory designed to measure trait shame in adults. There are two subscales: a 24-item scale measuring internalized shame, and a 6-item self-esteem scale (this was included to prevent a response set bias). It employs a 5-point Likert scale, which ranges from 0 (never) to 4 (almost always). Full scale scores range from 0 – 96. Examples of ISS items are: “*I feel as if I am somehow defective as a person, like there is something wrong with me*”, and “*I have this painful gap within me that I have not been able to fill*”. The scale is used not only for research purposes, but also as a clinical screening and treatment monitoring tool (Cook et al. 2001).

The ISS was originally developed to consist of a single underlying factor, measuring the core experience of internalized shame, which Cook (1988) defined as *inferiority*, the evaluation of self as being deeply inferior to other. Del Rosario and Brown (2006) subjected the ISS to a factor analysis and identified three distinct dimensions: Inferiority (n = 12 items; $\alpha = .92$), Fragile/Exposed (n = 8 items; $\alpha = .88$), and Empty/Lonely (n = 4 items; $\alpha = .96$). They reported Fragility/exposed as referring to feeling out of control, being emotionally unstable, and fearful of being exposed, and empty/loneliness they defined as feelings of emptiness and abandonment. The ISS technical manual (Cook et al., 2001) reports Cronbach’s alphas of .95 (non-clinical sample) and .96 (clinical sample). The test-retest stability coefficient ($r = .81$) for the ISS scale was significant suggesting good stability. The ISS was compared to theoretically linked constructs (e.g., hostility, depression) by Rybak and Brown (1996) who reported significant correlations between the ISS scores and measurements of these variables. Cronbach’s alpha in the present sample was .96.

6.4.5.2 Subtle Avoidance Frequency Evaluation (SAFE; Cuming et al., (2009). The Subtle Avoidance Frequency Examination (SAFE) was chosen over the Safety Behaviours

Questionnaire (SBQ; Clark et al., 1995 unpublished study) used in the preliminary study (see Chapter 3) as the psychometric qualities of Clark et al. (1995) questionnaire have never been published. However, the SAFE subscales reflect Clark and Wells' (1995) conceptualisation of safety behaviours as divided into two subsets: avoidance and impression management. Cuming et al. (2009) developed a pool of items based on the suggestions of experienced research clinicians who were invited to suggest overt and subtle safety behaviours as well as active and passive and cognitive and behavioural strategies. For their factor analysis three separate factors emerged that reflect: (a) subtle inhibition of behaviours (n = 15 items; $\alpha = .85$), (b) active impression management (n = 12 items; $\alpha = .86$), and (c) behaviours aimed at avoiding or concealing physical symptoms (n = 6 items; $\alpha = .83$). The first factor, inhibiting behaviours, denotes ways in which the individual may inhibit behaviour in order to avoid attracting attention, e.g., like remaining silent and allowing others to carry a conversation. The second factor, active behaviours revolve around active strategies to manage the impression others have of our social competency, e.g., internally practicing conversations in order to come across verbally fluent and capable. The third factor, managing physical symptoms, may reflect a subgroup of individuals with SAD who are especially concerned about visible anxiety symptoms and engage in activities designed to reduce this visibility, e.g., wear clothes or makeup to hide blushing (Cuming et al., 2009).

The 32 item SAFE employs a five-point Likert Scale ranging from 1 (never) to 5 (always). Potential full-scale scores range from 32-160. Examples of SAFE items include: *“Try to keep tight control of your behaviour”* (Inhibiting Behaviours), *“Before you arrive, excessively rehearse what you might say or how you might behave”* (Active Impression Management) and *“Avoid pauses in speech”* (Managing Physical Symptoms). The overall internal consistency of the scale is excellent with Cronbach's alpha calculated as .91 while the alphas for the three component scales were .87, .85 and .83, respectively (Cuming et al., 2009). Discriminant validity is also excellent with significant differences in scores obtained

between clinical and non-clinical samples (Cuming et al., 2009). Construct validity of SAFE scores was examined via correlations with scores obtained on the SIAS ($r = .62, p < .001$) and the SPS ($r = .70, p < .001$) (Cuming et al., 2009). Cronbach's alpha in the present sample was .92.

6.5 Intervention

The Social Anxiety Programme is a CBT-based group intervention (based on the Clark and Wells model of SAD) and details of the session by session content were provided in section 3.2.1 and Table 3.1.

6.6 Analysis of data

The SPSS version 25 (IBM Corp, 2017) was used to analyse the quantitative data. Data were screened to examine distributions using histograms, box plots and by examining skewness and kurtosis values. No multivariate outliers were detected using Mahalanobis Distances. Last observation carried forward (LOCF) was used for the intention to treat (ITT) analyses. For regression analyses, data were examined in terms of multicollinearity (Variance Inflation Factor: VIF), homoscedasticity, and distribution of residuals.

6.6.1 Group effectiveness. The effectiveness of the group-based intervention was determined by using mixed ANOVA; ITT analyses were conducted using LOCF. The interaction term was examined for significant simple effects to determine how the groups changed differently over time. Effect sizes are reported in terms of amount of variance explained and Cohen's *d*. Similar to the previous empirical study, clinical significance was

defined as exceeding the RCI and a greater likelihood of being in the normal distribution than being in the clinical distribution. Statistical significance was set at .01.

6.6.2 Moderator variables. The impact of moderator variables was determined using hierarchal regression: the first step included the main effect of treatment (intervention or control) and the potential moderator (e.g., anger), and the next step included the interaction of treatment and moderator. To determine the combined effect of the moderators, multiple moderation using the PROCESS macros for SPSS (Hayes, 2018) was applied. For all analyses statistical significance was set at .01 and effect sizes are reported in terms of amount of variance explained.

6.6.3 Mediator Variables. The impact of mediator variables was determined using a series of regression models to examine: (1) the relationship between the treatment group (intervention or control) and the mediator, (2) the relationship between the mediator and the outcome, (3) the relationship between the treatment group (intervention or control) and the outcome directly, and (4) the relationship between the treatment group (intervention or control) and the outcome indirectly through the mediated pathways. To determine the direct effect of the treatment group and the indirect effect of the mediator the PROCESS macro for SPSS (Hayes, 2018) was applied. For all analyses statistical significance was set at .01 and effect sizes are reported in terms of the ratio of the indirect mediated effect to the direct effect.

Chapter 7: Results

7.1 Participant Recruitment

Recruitment for this study commenced in March 2014 and the first intervention groups started in May 2014. The aim was to obtain a minimum of 100 complete data sets (based on a power analysis; see section 6.2.3) and consequently a total of 16 intervention groups containing approximately 10 participants each was targeted. Efforts were made to ensure that each group had an equal balance of male and female participants. This allowed for a potential total of 160 data sets with room for attrition. Recruitment continued up till January 2018.

A total of 271 individuals from the SAI waiting list were contacted during the study period. We were unable to assess 101 (37%) individuals for eligibility due to a variety of reasons (see Figure 7.1). A total of 170 individuals were assessed for eligibility and a small number were excluded due to unsuitability ($n = 11$; 6.5%): either they failed to make the inclusion criteria or did make one of the exclusion criteria (see section 5.3.1 and 5.3.2). This represents an overall attrition/not suitable rate of 41.3% during the recruitment phase. A total of 159 individuals were recruited for inclusion in the study and randomly assigned to either CBGT ($n = 79$) or Control ($n = 80$). Primary and secondary outcome data was collected from 72 participants (CBGT) and 77 participants (Control) at pre-intervention (t_1) representing a loss of study sample of eight and three respectively. The loss of sample data from pre-intervention (t_1) to post-intervention (t_2) was two (CBGT) and four (Control).

7.1.1 Waiting time. The average length of time applicants spent on the waiting list was 447 days (Range: 220 -1130 days). The mode was 365 days while the median was 440 days. This represented an average wait time of 14-15 months. The shortest wait period was

just over seven months while one individual waited three years and one month. The longer than average wait periods were due to difficulties contacting applicants or/and applicants deferring screening appointments for later groups due to personal circumstances.

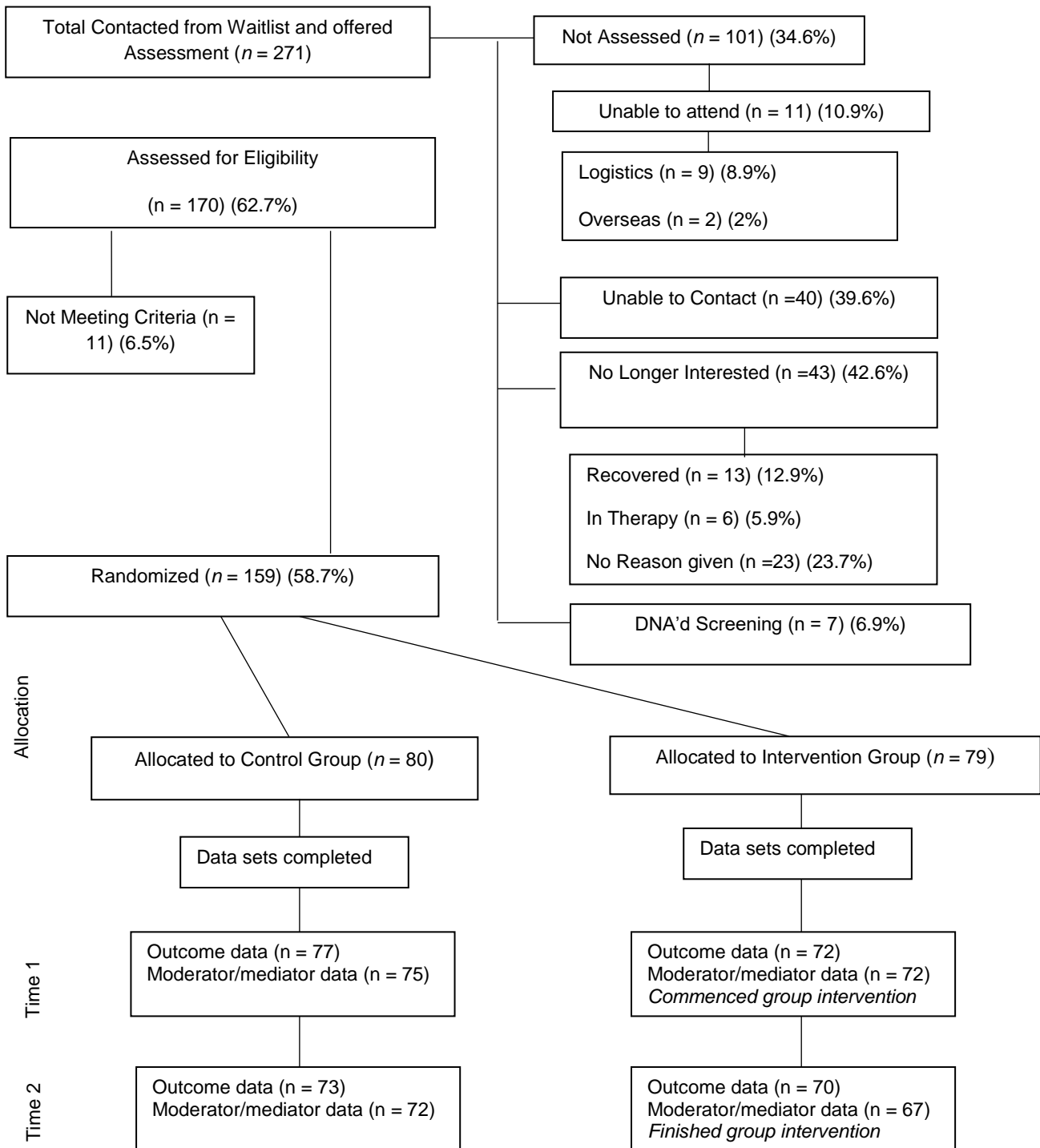


Figure 7.1 Flow chart of participants.

7.2 Participants Demographic Characteristics

The mean age of the 159 participants was 35.65 years ($SD = 10.08$, range 19-69). The majority (72.3%) of participants came from an urban population. Most participants were Irish nationals (89.3%) and single (55.3%). Additional demographic details of the sample are provided in Table 7.1.

Table 7.1
Demographic Details for Sample

	Total n (%)	Control n (%)	Intervention n (%)
Gender			
Male	79 (49.3%)	39 (48.8%)	40 (51.2%)
Female	80 (50.7%)	41 (51.2%)	39 (48.8%)
Location			
Urban	115 (72.3%)	60 (75%)	55 (69.6%)
Rural	44 (27.7%)	20 (25%)	24 (30.4%)
Marital Status			
Single	88 (55.3%)	43 (55.8%)	45 (57%)
Married / Co-habiting	60 (37.7%)	30 (37.5%)	30 (38%)
Separated	8 (5%)	6 (7.5%)	2 (2.5%)
Divorced / Annulled	2 (1.3%)	1 (1.3%)	1 (1.3%)
Widowed	1 (0.6%)	0 (0%)	1 (1.3%)
Education Level			
Primary	1 (0.6%)	1 (1.3%)	0 (0%)
Secondary	22 (13.8%)	8 (10%)	14 (17.7%)
Further Education	33 (20.8%)	18 (22.5%)	15 (19%)
Third Level/Post Leaving Cert	57 (35.8%)	28 (35%)	29 (36.7%)
Post graduate degree	46 (29.9%)	25 (31.3%)	21 (26.6%)
Socio-Economic Status			
Managerial and professional	44 (27.7%)	21 (26.3%)	23 (29.1%)
Intermediate occupations	29 (18.2%)	16 (20%)	13 (16.5%)
Small employers and own account	6 (3.8%)	3 (3.7%)	3 (3.8%)
Lower supervisory and technical	27 (17%)	15 (18.7%)	12 (15.2%)
Semi-routine and routine	18 (11.3%)	6 (7.5%)	12 (15.2%)
Unemployed	18 (11.3%)	9 (11.3%)	9 (11.4%)
Student	17 (10.75%)	10 (12.5%)	7 (8.9%)
Occupational Status			
Full time	90 (56.6%)	46 (57.5%)	44 (55.7%)
Part Time	20 (12.6%)	7 (8.8%)	13 (16.5%)
Retired	4 (2.5%)	3 (3.8%)	1 (1.3%)
Job Seeking	25 (15.7%)	13 (16.3%)	12 (15.2%)
Other	20 (12.6%)	11 (13.8%)	9 (11.4%)
Nationality			
Irish	142 (89.3%)	72 (90%)	70 (88.6%)
Non-Irish	17 (10.7%)	8 (10%)	9 (11.4%)

To test for any significant difference between individuals assigned to the intervention group vs. the control group, a series of chi square analysis were completed on all demographic categorical variables: gender, rural/urban location, marital status, educational level, socio-economic status, employment status and nationality. While random assignment should produce no significant findings given the relatively small number of study participants this analysis was deemed prudent.

Chi-square tests of independence found no significant relationship was found between gender and group status, $\chi^2(1, N = 158) = 0.056, p = .812$. Likewise, no difference was found between urban/rural location and group status $\chi^2(1, N = 158) = 0.575, p = .448$, marital status and group status $\chi^2(4, N = 155) = 3.04, p = .551$, level of educational and group status $\chi^2(4, N = 155) = 3.27, p = .514$, socioeconomic status and group status $\chi^2(6, N = 153) = 3.26, p = .776$, occupational status and group status $\chi^2(4, N = 155) = 3.08, p = .545$ and nationality and group status, $\chi^2(1, N = 158) = .081, p = .776$.

7.3 Psychological Characteristics

The next section compares the scores obtain from this study sample on outcome, mediator and moderator measure at pre-intervention (t1) with established community and/or clinical norms.

7.3.1 Outcome measures. To determine the initial psychological characteristic of the sample participants and how they might differ from established community and/or clinical norms a series of one sample t-tests were carried out. For the primary outcome measures the comparison was made with established clinical norms. All pre-intervention (t1) primary outcome scores were statistically significantly higher than published clinical norms for this population (Table 7.2). The clinical norms used were those produced by the scales

authors: BFNE-R (Carleton, Collimore, McCabe, & Antony, 2011), SIAS, SPS (Mattick & Clarke, 1998) and the SPIN (Connor et al., 2000).

Table 7.2

Results of Single Sample t-tests and descriptive statistics for comparisons between pre-intervention (t1) primary outcome measures and published clinical norms

Outcome	Study Population (t1)			Published Clinical Norms			t-test
	M	SD	n	M	SD	n	
SIAS	52.72	8.39	149	34.6	16.4	243	**26.39
SPS	42.55	15.51	149	40	16	243	*2.01
SPIN	45.96	10.78	149	40.1	10.2	148	**6.63
BFNE-R	51.70	8.25	149	40.61	8.55	381	**16.42

* $p < .05$ ** $p < .001$ SIAS = Social Interaction Anxiety Scale. SPS = Social Performance Scale. SPIN = Social Phobia Inventory. BFNE-R = Brief Fear of Negative Evaluation

A similar series of one sample t-tests was conducted to determine if any statistical differences existed between the sample's scores on the secondary outcome measures and published community norms. The norms used for the PHQ-9 (Kroenke et al., 2001) the GAD-7 (Spitzer et al., 2006) and the WSAS (Mundt et al., 2002) are those provided by the scale authors. The PHQ-9 and the GAD-7 norms were based on medical primary care patients who were formally diagnosed as free of depressive disorders or general anxiety disorders respectively. The WSAS used a mental health population sample and the norms used here are of those formally diagnosed as free of depressive disorder. All pre-intervention (t1) secondary outcome scores were statistically significantly different to published community norms. Levels of depression and generalized anxiety were significantly higher than expected in the general population and work and social adjustment was significantly lower (Table 7.3).

Table 7.3

Results of Single Sample t-tests and descriptive statistics for comparisons between pre-intervention (t1) secondary outcome measures and published norms

Outcome	Study Population (t1)			Published Norms			t-test
	M	SD	n	M	SD	n	
PHQ-9	9.95	6.62	149	3.3	3.8	474	**12.27
GAD-7	10.6	5.72	149	4.9	4.8	892	**12.17
WSAS	20.67	8.77	149	6.5	6.9	190	**19.72

** $p < .001$ PHQ-9 = Patient Health Questionnaire-9. GAD-7 = General Anxiety Disorder 7. WSAS = Work and Social Adjustment Scale.

7.3.2 Moderator measures. Single sample t-tests were also carried out to determine if any statistical differences existed between the sample's scores on the moderator measures and published community norms; pre-intervention (t1) scores on the FPES and TAS-20 questionnaires all were statistically significantly higher than published community norms (Table 7.4).

Table 7.4
Results of Single Sample t-tests and descriptive statistics for comparisons between pre-intervention (t1) moderator/mediator outcome measures and published norms

Outcome	Study Population (t1)			Published Norms			t-test
	M	SD	n	M	SD	n	
FPES	43.18	14.11	147	23.36	13.07	1171	**17.03
TAS-20	56.50	11.68	147	45.57	11.35	1933	**11.34

** $p < .001$ FPES = Fear of Positive Evaluation. TAS-20 = Toronto Alexithymia Scale

The norms used for the FPES (Weeks et al., 2008) were those provided by the scale authors. The FPES ($t(146) = 6.03, p < .001$) was also statistically significantly higher than published clinical norms ($M = 36.16, SD = 16.48$; Fergus et al., 2009). The norms used for the TAS-20 are those reported by the original authors in a later replication of their original study using a large sample (Parker et al., 2003).

Pre-intervention (t1) scores on all the STAXI-II scales and subscales were compared to published community norms using single sample t-tests (Table 7.5).

Table 7.5
Results of Single Sample t-tests and descriptive statistics for comparisons between time1 STAXI-II moderator measures and published norms

Measure	Study Population (t1)			Published Norms			t-test
	M	SD	n	M	SD	n	
T-Ang	20.91	6.55	146	16.37	5.03	1211	**8.41
T-Ang/T	7.50	3.47	146	5.36	2.18	1211	**7.46
T-Ang/R	9.83	2.79	146	7.61	2.44	1211	**9.65
AX-O	13.08	3.64	146	14.76	3.90	1211	**5.59
AX-I	20.61	4.99	146	17.48	3.89	1211	**7.61
AC-O	23.60	4.95	146	20.96	4.62	1211	**6.46
AC-I	20.41	4.92	146	21.23	5.03	1211	-2.02

** $p < .001$ T-Ang=Trait Anger; T-Ang/T=Angry Temperament; T-Ang/R=Angry Reaction; AX-O=Anger Expression-Out; AX-I=Anger Expression-In; AC-O=Anger Control-Out; AC-I=Anger Control-In.

The publishers of the STAXI-II do not provide community norms and so the norms based on general population sample provided by Lievaart et al. (2016) were used. This study norms were used due to its large sample size ($n = 1,211$), recency and paucity of other studies providing STAX-II community norms. No difference was found for Anger Control In (AC-I). Anger Expression Out (AX-O) was significantly lower than community norms. The remaining subscales, i.e., Trait Anger (T-Ang), Trait Anger/Temperament (T-Ang/T), Trait Anger/Reaction (T-Ang/R), Anger Expression-In (AX-I) and Anger Control-Out (AC-O), were significantly higher than community norms.

In summary, compared to community norms, the study participants at the pre-intervention (t1) stage were more likely:

- (T-Ang/T) to experience anger without provocation,
- (T-Ang/R) to have frequent angry feelings in situations that involve frustration and/or negative evaluations,
- (AX-I) to suppress angry feelings that are experienced, i.e., more likely to hold it in instead of expressing it and finally,
- (AC-O) to attempt to control the outward expression of angry feelings.

In contrast, study participants were less likely to engage in the outwardly expression of anger (AX-O) toward other people or objects in either a verbal or physical manner. Finally, study participants were comparable to community norms in terms of how often they attempted to control their angry feelings by calming down or cooling off (AC-I).

7.3.3 Mediator measures. One sample t-tests were also carried out to determine if any statistical differences existed between the sample's scores on the mediator measures and published community norms; pre-intervention (t1) scores on the ISS and the SAFE questionnaires all were statistically significantly higher than published community norms (Table 7.6). While the publishers of the ISS (Cook, 1988) do provide norms they are over

30 years old, and consequently more recent norms based on a sample provided by Del Rosario and White (2006) were used. The norms used for the SAFE are those reported by the scales original authors (Cuming et al., 2009). The SAFE ($t(145) = 4.60, p < .001$) scores were also statistically significantly higher than published clinical norms: levels of internal shame, and safety behaviours were found to be higher than at pre-intervention (t1) than considered normal.

Table 7.6
Results of Single Sample t-tests and descriptive statistics for comparisons between time1 ISS and SAFE mediator measures and published community norms

Measure	Study Population (t1)			Community Norms			t-test
	M	SD	n	M	SD	n	
ISS	85.68	19.96	146	27.48	15.76	184	**35.36
SAFE	57.97	21.24	146	40.0	18.8	64	**10.25

** $p < .001$ ISS = Internal Shame Scale. SAFE = Social Interaction Anxiety Scale

7.4 Correlations between Psychological Variables.

7.4.1 Outcome measures. To see whether the outcome variables were correlated Pearson's bivariate correlations were performed (Table 7.7). As expected, all the primary social anxiety measures are highly inter-correlated. However, the secondary outcome measures were also highly inter-correlated, and strong correlations were also found between the primary and secondary outcome measures.

7.4.2 Moderator measures. Trait anger scores were not correlated with fear of negative evaluation scores (Section 5.3.1.1; question iii). The T-anger was only correlated with the SPIN from the primary outcome measures and the GAD from the secondary outcome measures. There were no correlations with any of the other primary or secondary outcomes measure. Moreover, no correlations were found between T-anger and any of the SAFE scales. T-anger was correlated with ISS-total (and only the fragile and empty subscales).

The TAS-total was positively correlated with all primary measures and scores on the WSAS (Section 5.3.2.1; question ii). The TAS-total was strongly correlated with the FPES, the ISS, and the SAFE. The TAS-total was moderately correlated with the T-anger scale, strongly correlated with the AX-I anger subscale and moderately correlated with the AC-I subscale.

The FPES was positively correlated with all primary measures (Section 5.3.3.1; question i). Moreover, the query as to whether the FPES would be positively correlated with the BFNE-R was also confirmed (Section 5.3.3.1; question ii). The question as to whether the FPES would be positively correlated with the SAFE-Total, and all its subscales was verified (Section 5.3.3.1; question iv). The relative correlations were, inhibiting/restricting behaviour subscale ($r = .42$), active impression management ($r = .40$), and managing physical symptoms ($r = .29$). Finally, the FPES was moderately correlated with TAS-total (and all its subscales) and the AX-I anger subscale. The FPES was correlated with all secondary outcome measures.

7.4.3 Mediator measures. The ISS-total score was positively correlated with all primary measures (Section 5.4.1.1; question i). The ISS-total was also strongly correlated with all secondary measures. The ISS-total score was positively correlated with the SAFE-total scores (Section 5.4.1.1; question ii). The relative correlations of the ISS-total subscales were: inhibiting/restricting behaviour subscale ($r = .55$), active impression management ($r = .52$), and managing physical symptoms ($r = .30$). The expectation that the ISS-Total would have the largest correlation with the inhibiting/restricting behaviour subscale was confirmed. The ISS-total was also strongly correlated with the moderator measures – FPES, TAS-total and T-Anger. Of note, the ISS-total was only correlated with the AX-I anger subscale.

The SAFE-total almost follows the same pattern of correlations as the ISS-total. The ISS-total score was positively correlated with all primary measures (Section 5.4.2.1;

question i). The SAFE-total was also strongly correlated with all secondary outcome measures. Furthermore, the SAFE-total was correlated with the moderator measures: FPES, TAS-total and T-anger. Of note the SAFE-total was only correlated with the AX-I anger subscale.

Table 7.7

Correlations between primary outcome, secondary outcome measures, moderator measures and mediator measures at pre-intervention (t1)

	Variable	SIAS	SPS	SPIN	BFNE	PHQ-9	GAD-7	WSAS	FPE	TAS-T	T-Ang	AX-O	AX-I	AC-O	AC-I	ISS
1	SIAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	SPS	.647**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	SPIN	.627**	.727**	-	-	-	-	-	-	-	-	-	-	-	-	-
4	BFNE-R	.458**	.486**	.506**	-	-	-	-	-	-	-	-	-	-	-	-
5	PHQ-9	.435**	.504**	.411**	.443**	-	-	-	-	-	-	-	-	-	-	-
6	GAD-7	.534**	.582**	.555**	.516**	.694**	-	-	-	-	-	-	-	-	-	-
7	WSAS	.360**	.403**	.482**	.508**	.486**	.482**	-	-	-	-	-	-	-	-	-
8	FPES	.509**	.578**	.561**	.341**	.371**	.372**	.367**	-	-	-	-	-	-	-	-
9	TAS-20 Total	.348**	.281**	.282**	.272**	.460**	.424**	.316**	.270	-	-	-	-	-	-	-
10	T-Anger	.061	.159	.217**	.071	.071	.282**	.136	.037	.164*	-	-	-	-	-	-
11	AX-O	-.048	-.055	-.023	-.037	-.076	.081	-.063	-	.003	.593**	-	-	-	-	-
12	AX-I	.247**	.252**	.264**	.415**	.362**	.413**	.409**	.183	.409**	.375**	.037	-	-	-	-
13	AC-O	-.003	-.063	.029	.045	.008	-.124	.116	.002	-.084	-.52**	-.65**	.071	-	-	-
13	AC-I	.0500	-.074	.113	.005	-.114	-.117	-.028	.073	-.207*	-.33**	-.31**	.028	.584**	-	-
15	ISS	.499**	.432**	.547**	.661**	.643**	.657**	.587**	.383	.498**	.187*	-.015	.522**	-.029	-.054	-
16	SAFE - Total	.500**	.651**	.638**	.486**	.533**	.578**	.437**	.448	.273**	.122	.112	.401**	.015	.046	.570**

Note. ** $p < .01$

SIAS = Social Interaction Anxiety Scale. SPS = Social Performance Scale. SPIN = Social Phobia Inventory. BFNE-R = Brief Fear of Negative Evaluation. GAD-7 = General Anxiety Disorder 7. PHQ-9 = Patient Health Questionnaire-9. WSAS = Work and Social Adjustment Scale. FPES = Fear of Positive Evaluation. TAS-20 = Toronto Alexithymia Scale; T-Ang=Trait Anger. T-Ang/T=Angry Temperament. T-Ang/R=Angry Reaction. AX-O=Anger Expression-Out. AX-I=Anger Expression-In. AC-O=Anger Control-Out. AC-I=Anger Control-In. ISS = Internal Shame Scale. SAFE = Social Interaction Anxiety Scale.

7.5 Changes in Psychological Variables Over Time.

As randomisation with small samples can produce non-equivalent groups, to ensure that the groups were comparable at the pre-intervention (t1) assessment, MANOVA was conducted with the four primary outcome variables (SIAS, SPS, SPIN and BFNE-R) at pre-intervention (t1). Findings revealed no significant differences between the group (intervention vs. control) at baseline in relation to the dependent variables, Wilks' $\lambda = .997$, $F(4, 144) = .111$, $p < .979$, partial $\eta^2 = .003$. Another MANOVA was conducted with the three secondary outcome variables (PHQ-9, GAD-7 and the WSAS) pre-intervention (t1). Results indicate no significant differences between intervention and control groups, Wilks' $\lambda = .989$, $F(3, 145) = .559$, $p = .643$, partial $\eta^2 = .011$. The participants within the intervention group did not differ significantly on any of the independent variables at baseline. The next section analyses the actual effectiveness of the intervention group in comparison to the control group.

7.5.1 Outcome measures – primary. An analysis of outcome effectiveness was achieved using mixed ANOVA repeated measures design using ITT analysis. A significant ($p < .01$) Time x Group Intervention effect was found for all primary outcome variables (Table 7.8: Figures 7.2 – 7.5). The primary outcome measures showed the largest effect sizes: SPIN ($\eta^2 = .226$), SPS ($\eta^2 = .222$), SIAS ($\eta^2 = .206$), and the BFNE-R ($\eta^2 = .171$). Calculations of Cohen's effect sizes were also calculated for easier comparison with the extant literature. Cohen's effects sizes ranged between 0.88 to 1.13. The results also indicate that while the control group did achieve a small reduction in scores across time, none reach statistical significance.

The rate of CSC was established following the same criterion outlined in the earlier study outline in Chapter 3 (section 3.4). As before the authors' normative samples of 350 healthy community participants was used for the SIAS and SPS, while published norms

produced by IAPT (2014) were used for the SPIN and Rodebaugh et al.'s (2011) BFNE-R norms. CSC's ranging from 31% to 49% was found across the four outcome measures (Table 7.8).

Using the SPIN's recommended cut-off score of 19 or above for SAD caseness (Connor et al., 2000), 100% (Control) and 99% (CBGT) recorded above this cut-off point at pre-intervention (t1). At post-intervention (t2) the percentages were 99% (Control) and 85% (CBGT) a reduction of 1% (Control) and 14% (CBGT).

Table 7.8
Changes in primary outcome measures over time by group

Measure	Time 1	Time 2	<i>M</i> Diff	Partial η^2	Cohen's <i>d</i>	%CSC
SIAS - Intervention	51.97 (8.62)	42.22 (11.63)	9.75	.206	1.13	49%
Control	52.54 (8.28)	51.66 (8.31)	0.88		0.11	10%
SPS - Intervention	41.72 (15.21)	28.39 (14.38)	13.33	.222	0.88	31%
Control	42.16 (15.61)	40.93 (15.71)	1.23		0.08	4%
SPIN - Intervention	45.49 (11.60)	32.81 (13.49)	12.68	.226	1.09	34%
Control	45.33 (10.27)	44.09 (10.88)	1.25		0.12	3%
BFNE-R - Intervention	51.15 (7.77)	42.91 (11.83)	8.24	.171	1.06	44%
Control	51.99 (8.53)	51.67 (8.22)	0.32		0.04	8%

SIAS = Social Interaction Anxiety Scale. SPS = Social Performance Scale. SPIN = Social Phobia Inventory. BFNE-R = Brief Fear of Negative Evaluation Intervention

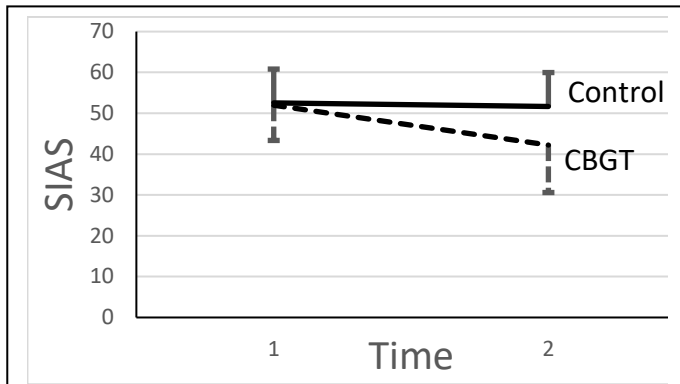


Figure 7.2 Changes in SIAS (*M* and *SD*) over time for CBGT and Control groups

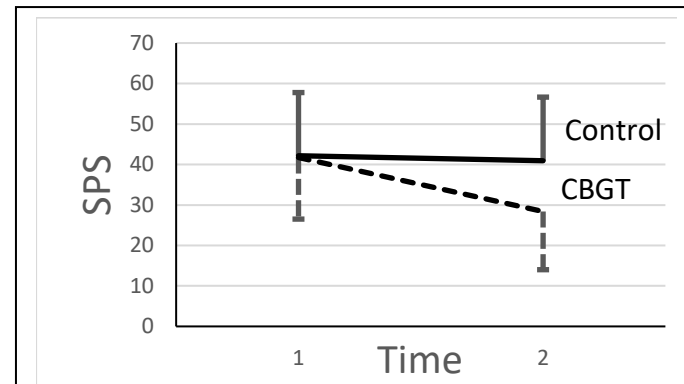


Figure 7.3 Changes in SPS (*M* and *SD*) over time for CBGT and Control groups

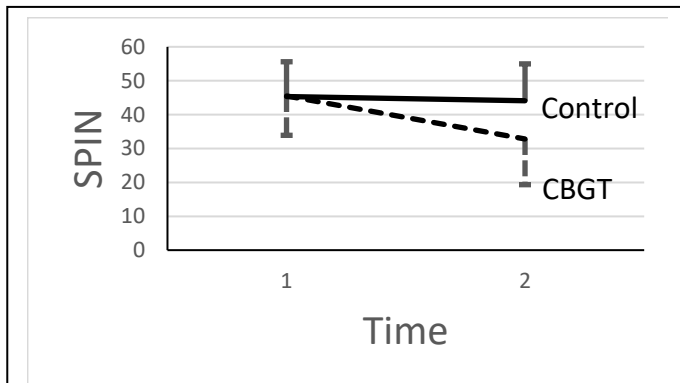


Figure 7.4 Changes in SPIN (*M* and *SD*) over time for CBGT and Control groups

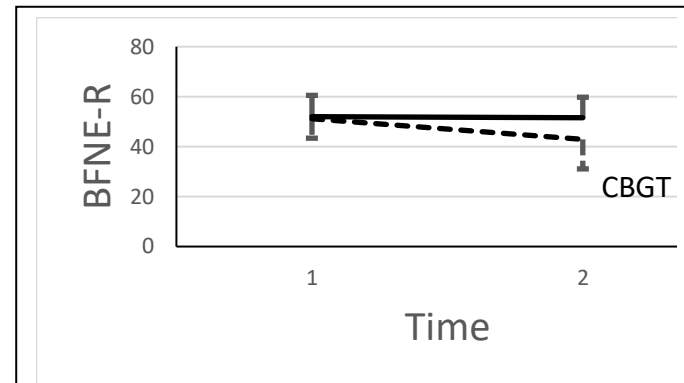


Figure 7.5 Changes in BFNE-R (*M* and *SD*) over time for CBGT and Control groups

7.5.2 Outcome measures – secondary. The secondary outcome measures also showed significant ($p < .01$) Time x Group intervention effects though the effect sizes were somewhat more moderate than the primary outcome measures (Table 7.9). Assessed levels of pre-intervention (t1) social adjustment and work difficulties (WSAS, $\eta^2 = .153$) general anxiety (GAD, $\eta^2 = .070$) and depression (PHQ-9, $\eta^2 = .069$); all demonstrated significant reduction in scores at post-intervention (Table 7.9).

Normative data provided by the IAPT (2014) was used to establish the criterion for CSC for the secondary outcome measures (GAD-7, PHQ-9) and for the WSAS normative data from a study by Zahra et al. (2014) was used. CSC's ranging from 38% to 45% were found across the four outcome measures (Table 7.9).

Table 7.9
Results of repeated measures design and Descriptive Statistics Time vs Group Intervention effect for secondary outcome measures

Measure	Time 1	Time 2	M Diff	Partial	Cohen's d	%CSC
GAD-7 -	9.91 (5.43)	6.07 (4.87)	3.84	.070	0.71	44%
Control	10.34 (5.81)	9.11 (5.87)	1.23		0.21	6%
PHQ-9 -	9.73 (5.85)	6.39 (5.55)	3.34	.069	0.57	45%
Control	10.11 (7.32)	9.36 (6.57)	0.85		0.12	4%
WSAS - Intervention	21.07(8.28)	15.13 (9.48)	5.94	.153	0.72	38%
Control	20.27(9.37)	20.56 (8.8)	-0.05		-0.05	6%

GAD-7 = General Anxiety Disorder 7. PHQ-9 = Patient Health Questionnaire-9. WSAS = Work and Social Adjustment Scale

Using the PHQ-9 recommended cut-off score of 10 or above (Kroenke et al., 2001), 47% (Control) and 43% (CBGT) recorded above this cut-off point at pre-intervention (t1). At post-intervention (t2) the percentages were 40% (Control) and 25% (GBGT) a reduction of 7% (Control) and 18% (CBGT).

Based on GAD-7 recommended cut-off score of 8 or above (Spitzer et al., 2006), then 65% (Control) and 67% (CBGT) recorded above this cut-off point at pre-intervention (t1). At post-intervention (t2) the percentages were 45% (Control) and 36% (GBGT) a reduction of 20% (Control) and 31% (CBGT).

Using the WSAS recommended cut-off score of 10 or above (Mundt et al, 2002), 86% (Control) and 90% (CBGT) recorded above this cut-off point at pre-intervention (t1). At post-intervention (t2) the percentages were 88% (Control) and 65% (GBGT) an increase of 2% (Control) and a reduction of 25% (CBGT). A score above 10 implies significant functional impairment. A higher cut-off score of 20 can also be used, which indicate significant functional impairment and moderately severe or worse psychopathology. If the WSAS recommended cut-off score of 20 or above is used (Mundt et al., 2002), then 49% (Control) and 56% (CBGT) recorded above this cut-off point at pre-intervention (t1). At post-intervention (t2) the percentages were 52% (Control) and 32% (GBGT) an increase of 3% (Control) and a reduction of 24% (CBGT).

7.5.3 Direction of change. This section seeks to assess the direction of change noted above in the mixed ANOVA analyses by employing *post hoc* tests.

Table 7.10
Comparison of Outcome Measures at post-Intervention (t2) for CBGT (n= 72) vs. Control group (n = 77)

Outcome	Group				99% CI for Mean Difference		t
	Control		Intervention				
	M	SD	M	SD			
Primary outcome							
SAIS	51.67	8.18	42.17	11.38	6.23	12.77	5.75*
SPS	40.71	15.52	28.17	14.16	7.62	17.46	5.04*
SPIN	43.93	10.78	32.53	13.27	7.41	15.39	5.65*
BFNE-R	51.38	8.40	42.84	11.64	5.19	11.89	5.05*
Secondary outcome							
PHQ-9	9.59	6.65	6.27	5.48	1.30	5.34	3.25*
GAD-7	9.37	6.03	6.01	4.80	1.55	5.16	3.67*
WSAS	20.81	8.74	14.93	9.33	2.89	8.87	3.89*

* $p < .01$ SIAS = Social Interaction Anxiety Scale. SPS = Social Performance Scale. SPIN = Social Phobia Inventory. BFNE-R = Brief Fear of Negative Evaluation; PHQ-9 = Patient Health Questionnaire-9. GAD-7 = General Anxiety Disorder 7. WSAS = Work and Social Adjustment Scale.

7.5.3.1 Differences between groups at time 2. A series of Bonferroni *post hoc* tests revealed statistically differences between the control and intervention conditions at post-

intervention (t2) (table 7.10); the intervention group scored significantly lower on the outcome measures than their control counterparts at post-intervention (t2).

7.5.3.2 Changes in the CBGT group between time 1 and time 2. The second step compared scores on the primary and secondary outcome measures in the *intervention* group at pre-intervention (t1) and post-intervention (t2). There was a significant decrease in the scores for all outcome measures (Table 7.11).

Table 7.11
Results and descriptive statistics of paired sample t-tests of Outcome Measures for CBGT Group (n = 72)

Outcome	Group				99% CI for Mean Difference		t
	Time 1		Time 2				
	M	SD	M	SD			
Primary outcome							
SAIS	51.97	8.62	42.22	11.63	7.03	12.46	7.17**
SPS	41.72	15.21	28.39	14.38	9.80	16.85	7.55**
SPIN	45.49	11.60	32.81	13.49	9.42	15.95	7.75**
BFNE-R	51.15	7.77	42.91	11.83	5.57	10.91	6.16**
Secondary outcome							
PHQ-9	9.73	5.85	6.39	5.55	1.85	4.83	4.48**
GAD-7	9.91	5.43	6.07	4.87	2.50	5.17	5.73**
WSAS	20.07	8.28	15.13	9.48	3.80	8.08	5.54**

** $p < .001$ SIAS = Social Interaction Anxiety Scale. SPS = Social Performance Scale. SPIN = Social Phobia Inventory. BFNE-R = Brief Fear of Negative Evaluation; PHQ-9 = Patient Health Questionnaire-9. GAD-7 = General Anxiety Disorder 7. WSAS = Work and Social Adjustment Scale.

7.5.3.3 Changes in the control group between time 1 and time 2. The third step compared scores on the primary and secondary outcome measures in the *control* group at pre-intervention (t1) and post-intervention (t2). There was a significant difference in the scores for GAD-7; $t(69) = 2.53, p = .014$; scores were lower at post intervention. No other differences were found for the remaining primary and secondary outcome measures (Table 7.12).

Table 7.12

Results and descriptive statistics of paired sample t-tests of Outcome Measures for Control Group (n = 77)

Outcome	Group				99% CI for Mean Difference		t
	Time 1		Time 2				
	M	SD	M	SD			
Primary outcome							
SAIS	52.54	8.28	51.66	8.31	-0.45	2.22	1.33
SPS	42.16	15.61	40.93	15.71	-0.54	2.99	1.40
SPIN	45.37	10.27	44.09	10.88	-0.38	2.95	1.54
BFNE-R	51.99	8.53	51.67	8.22	-1.11	1.74	0.44
Secondary outcome							
PHQ-9	10.11	7.32	9.36	6.57	-0.30	1.82	1.42
GAD-7	10.34	5.81	9.11	5.87	0.26	2.20	2.53*
WSAS	20.27	9.37	20.56	8.80	-1.64	1.07	-0.42

* $p < .05$ SIAS = Social Interaction Anxiety Scale. SPS = Social Performance Scale. SPIN = Social Phobia Inventory. BFNE-R = Brief Fear of Negative Evaluation; PHQ-9 = Patient Health Questionnaire-9. GAD-7 = General Anxiety Disorder 7. WSAS = Work and Social Adjustment Scale.

7.6 Summary

- There were no significant differences between the control group and the intervention group at the pre-intervention (t1) stage.
- The control group and the intervention group were statistically different at the post-intervention stage (t2); the intervention group scores were lower.
- The intervention group recorded statistically significant changes to the scores on all outcome measures between pre-intervention (t1) to post-intervention period (t2).
- The control group recorded no statistically significant changes to the scores on all outcome measures between pre-intervention (t1) to post-intervention period (t2). There was one exception: the GAD-7 scores decreased (1.23 points) across this time frame.

Therefore, the hypothesis that levels of social anxiety (SPIN, SIAS, SPS) will significantly reduce following CBGT when compared with controls was supported (section 5.2). The hypothesis that levels of Fear of Negative Evaluation (BFNE-R) will significantly reduce following CBGT was also supported (section 5.2). Furthermore, the hypothesis that

levels of secondary anxiety (GAD-7) and depression (PHQ-9) will significantly reduce following CBGT when compared with controls was supported (section 5.2). And finally, the hypothesis that levels of work and social functioning (WSAS) will significantly improve following CBGT when compared with controls was also supported (section 5.2).

7.7 Moderators of Treatment Effects.

Several potential personality factors - trait anger (STAX-11), alexithymia (TAS-20), and fear of positive evaluation (FPES) - were hypothesised to have a moderating effect on the relationship between group (CBGT vs. control) and changes over time for primary (SIAS, SPS, SPIN and BFNE-R) and secondary outcome measures (PHQ-9, GAD-7 and WSAS). Moderators entered into a series of single hierarchical multiple regression analysis (PROCESS v3 – SPSS – model 1 (Hayes, 2018)) to test these hypotheses. The results are outlined in Appendix 12. Given that multiple analyses were undertaken a probability factor of .01 was employed to reduce the potential for Type 1 errors. The primary focus of this analysis is the moderating variable and their potential indirect role in influencing the dependent variables. Figure 7.6 offers a visual representation of the various steps in this regression analysis.

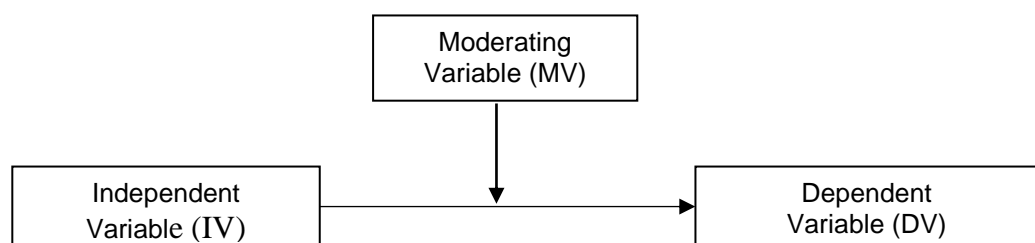


Figure 7.6 Model for moderating effect.

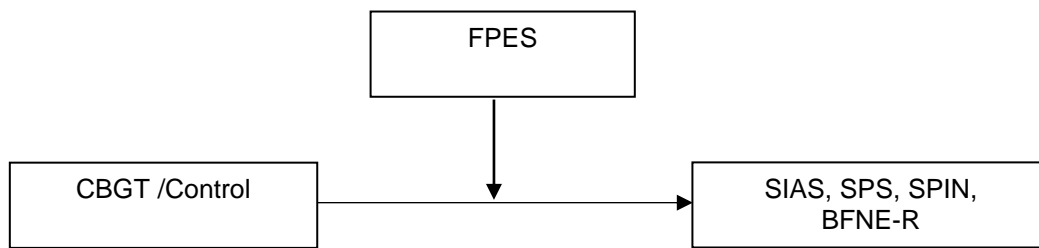


Figure 7.7 Model for moderating effect for FPES.

7.7.1 Impact of moderators on primary outcome measures.

7.7.1.1 *STAXI-II*. The hypothesis that levels of trait anger (STAXI-II) will significantly moderate the relationship between group status (CBGT vs. control) and all primary (SPIN, SIAS, SPS, BFNE-R) was not supported (section 5.3.1). The STAXI-II pre-intervention levels (t1) - including all the STAXI-II subscales - had no significant moderating effect on any of the primary outcome measures (Appendix 12). Of note, while the STAXI-II pre-intervention scores (t1) failed to reach significance there was a tendency of the AX-O to moderate the impact on the BFNE-R outcome scores ($b = 0.90$, $SEb = .41$, $\beta = 2.18$, $p < .03$). Higher baseline AX-O scores (t1) were somewhat associated with smaller reductions for the CBGT group in the BFNE-R from pre to post intervention (Figure 7.8).

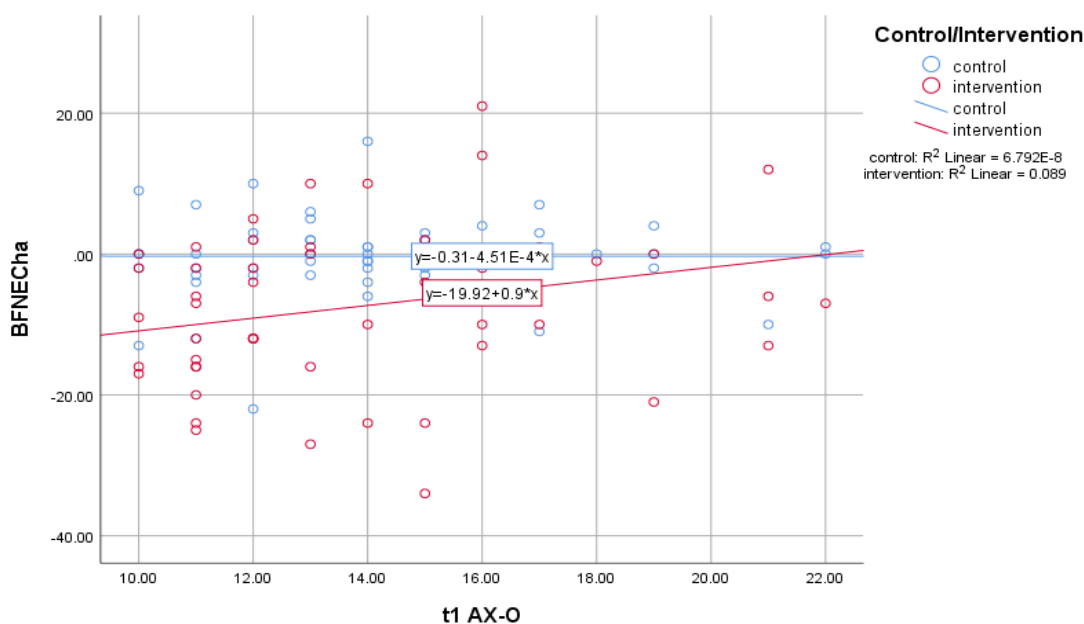


Figure 7.8 AX-O-total moderating effect on BFNE-R.

In order to address the question as to whether CBGT for SAD can reduce anger (section 5.3.1.1; question ii) a mixed ANOVA repeated measures design was utilized. Results indicate this question was largely uncorroborated. There were small reductions in T-Ang/R ($\eta^2 = .004$) and the AX-I ($\eta^2 = .07$) at post group intervention (t2) (Table 7.13).

Table 7.13
Results of repeated measures design and Descriptive Statistics Time vs Group Intervention effect for trait anger mediator measures

Measure		Time 1 M (SD)	Time 2 M (SD)	Mean Diff	Partial η^2	Effect Size Cohen's
T-Ang	Intervention	20.75 (6.54)	19.45 (5.88)	1.30	.006	0.20
	Control	20.25 (6.15)	19.58 (5.55)	0.67		0.11
T-Ang/T	Intervention	7.09 (3.37)	6.95 (3.27)	0.14	.001	0.04
	Control	7.23 (3.16)	6.94 (2.73)	0.29		0.09
T-Ang/R	Intervention	10.14 (2.76)	9.25 (2.63)	0.89	.04*	0.32
	Control	9.46 (2.81)	9.45 (2.99)	0.01		0.00
AX-O	Intervention	13.00 (3.70)	12.67 (3.25)	0.33	.00	0.09
	Control	12.96 (3.43)	12.70 (2.96)	0.26		0.08
AX-I	Intervention	20.91 (5.00)	19.05 (4.33)	1.86	.07**	0.37
	Control	20.48 (5.47)	20.46 (5.17)	0.02		0.00
AC-O	Intervention	24.06 (4.67)	24.25 (4.88)	-0.19	.002	-0.04
	Control	23.83 (4.84)	23.99 (4.58)	-0.16		-0.03
AC-I	Intervention	20.33 (5.09)	21.78 (4.96)	-1.45	.009	-0.28
	Control	20.80 (4.81)	21.46 (5.12)	-0.66		-0.14
A-Index	Intervention	37.52 (11.46)	33.68 (12.00)	3.84	.026	0.34
	Control	36.81 (12.39)	35.71 (11.73)	1.10		0.09

* $p < .05$ ** $p < .01$ T-Ang=Trait Anger; T-Ang/T=Angry Temperament; T-Ang/R=Angry Reaction; AX-O=Anger Expression-Out; AX-I=Anger Expression-In; AC-O=Anger Control-Out; AC-I=Anger Control-In.

7.7.1.2 TAS-20. The hypothesis that levels of alexithymia (TAS-20) will significantly moderate the relationship between group status (CBGT vs. control) and all primary (SPIN, SIAS, SPS, BFNE-R) was *not* supported (section 5.3.2). The analysis showed that the TAS-20 pre-intervention levels (t1) – in addition to the TAS-20 three subscales (DIF, DDF and EOT) – had no moderating effect on any of the primary outcome measures (Appendix 12). Of note, while the TAS-20 pre-intervention scores (t1) failed to reach significance level established for this primary study ($p < .01$) there was a tendency to moderate the impact on the SPS outcome scores ($b = 0.35$, $SEb = .17$, $t = 2.12$, $p < .04$).

Higher baseline TAS-20 scores (t1) were to some extent associated with smaller reductions in SPS for the CBGT (Figure 7.9).

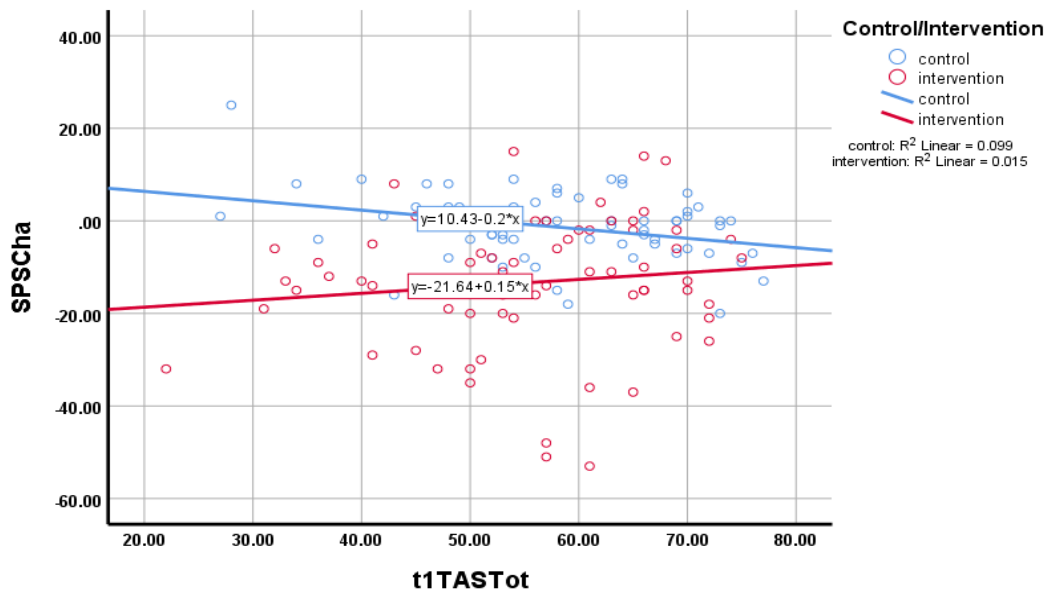


Figure 7.9 TAS-total moderating effect on SPS.

Of note, if the TAS-total recommended cut-off score of 61 or above is used (Parker et al., 2003), then 38% (Control) and 40% (CBGT) of participants recorded scores above this cut-off point at pre-intervention (t1). At post-intervention (t2) the percentages were 35% (Control) and 21% (GBGT), a reduction of 3% points (Control) and 19% points (CBGT).

Table 7.14
Results of repeated measures design and Descriptive Statistics Time vs Group Intervention effect for alexithymia mediator measures

Measure		Time 1 M (SD)	Time 2 M (SD)	Mean Diff	Partial η^2	Effect Size Cohen's
TAS-Tot	Intervention	55.36 (12.21)	50.94 (12.65)	4.42	.18	0.36
	Control	57.46 (11.55)	55.26 (11.51)	2.2		0.19
DIF	Intervention	19.50 (6.52)	17.75 (6.75)	1.75	.004	0.27
	Control	20.35 (6.31)	19.14 (6.70)	1.21		0.19
DDF	Intervention	15.64 (4.24)	13.77 (4.58)	1.87	.48*	0.44
	Control	16.48 (4.19)	16.06 (4.24)	0.42		0.10
Empty	Intervention	20.21 (4.51)	19.42 (4.56)	0.80	.001	0.18
	Control	20.64 (4.23)	20.06 (4.20)	0.58		0.14

* $p < .05$ ** $p < .01$ TAS-20 = Toronto Alexithymia Scale, DIF = Difficulty Identifying Feelings, DDF = Difficulty Describing Feelings, EOT = External Oriented Thinking

The question as to whether levels of alexithymia (TAS-total) will significantly reduce following CBGT when compared with controls was largely not supported. (section 5.3.1.1; question ii). Results indicate that only the DDF subscale showed significant reductions ($\eta^2 = .48$) at post group intervention (t2) (Table 7.14).

7.7.1.3 FPES. The hypothesis that levels of fear of positive evaluation (FPES) will significantly moderate the relationship between group status (CBGT vs. control) and all primary (SPIN, SIAS, SPS, BFNE-R) was not supported (section 5.3.2). The FPES pre-intervention scores (t1) had no significant moderating effect on any of the primary outcome measures (Appendix 12).

The question as to whether levels of fear of positive evaluation (FPES) will significantly reduce following CBGT when compared with controls was examined. (section 5.3.3.1; question iii). Results indicate that the FPES showed moderate yet significant reductions ($\eta^2 = .048$) at post group intervention (t2) (Table 7.15).

Table 7.15
Results of repeated measures design and Descriptive Statistics Time vs Group Intervention effect for fear of positive evaluation mediator measures

Measure		Time 1 M (SD)	Time 2 M (SD)	Mean Diff	Partial η^2	Effect Size Cohen's
FPES	Intervention	43.95 13.21)	36.63 (13.76)	7.32	.048*	0.55
	Control	42.57 (15.79)	40.58 (14.04)	1.99		0.13

* $p < .05$ FPES = Fear of Positive Evaluation

7.7.1.4 PHQ-9. The hypothesis that pre-treatment levels of depression (PHQ-9) will significantly moderate the relationship between group membership and all primary outcome measures (SPIN, SIAS, SPS, BFNE-R) following CBGT when compared with controls was not supported (section 5.3.4). The analysis showed that the PHQ-9 pre-intervention levels (t1) had no significant moderating effect on any of the primary outcome measures (Appendix 12).

7.7.2 Impact of moderators on secondary outcome measures.

7.7.2.1 STAXI-II. The hypothesis that levels of trait anger (STAXI-II) will significantly moderate the relationship between group status (CBGT vs. control) and all secondary outcome measures (PHQ-9, GAD-7, WSAS) was not supported (section 5.3.1). The STAXI-II pre-intervention levels (t1) - including all the STAXI-II subscales - had no significant moderating effect on any of the secondary outcome measures (Appendix 12).

7.7.2.2 TAS-20. The hypothesis that levels of alexithymia (TAS-20) will significantly moderate the relationship between group status (CBGT vs. control) and all secondary outcome measures (PHQ-9, GAD-7, WSAS) was not supported (section 5.3.2). The analysis showed that the TAS-20 (MV) pre-intervention levels (t1) – in addition to the TAS-20 three subscales (DIF, DDF and EOT) – had no moderating effect on any of the secondary outcome measures (Appendix 12).

7.7.2.3 FPES. The hypothesis that levels of fear of positive evaluation (FPES) will significantly moderate the relationship between group status (CBGT vs. control) and *all* secondary outcome measures was not supported (section 5.3.2). However, the FPES pre-intervention scores (t1) had a significant moderating impact on the WSAS outcome scores ($b = -0.24$, $SEb = .09$, $t = -2.85$, $p < .005$). Higher baseline FPES scores (t1) were associated with greater reductions in WSAS scores for the CGBT group across time (Figure 7.10). The FPES had no moderating influence on the remaining secondary outcome measures (Appendix 12).

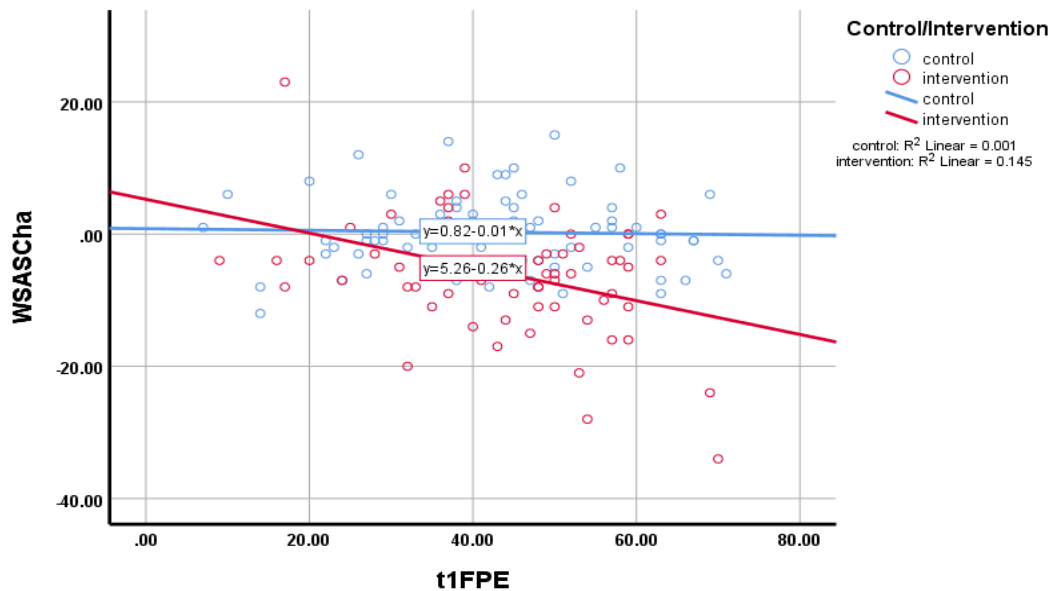


Figure 7.10 FPE moderating effect on WSAS.

7.8 Mediators of Treatment Effects

The proposed mediating (shame (ISS) and safety behaviours (SAFE)) variables were analysed using a series of multiple regression analysis (PROCESS v3; Hayes, 2018). The number of bootstrap samples for bias corrected bootstrap confidence intervals was 5,000. Given that multiple single analyses were undertaken, the level of confidence interval for all output data was 99%; this level was chosen to reduce the potential for Type 1 errors.

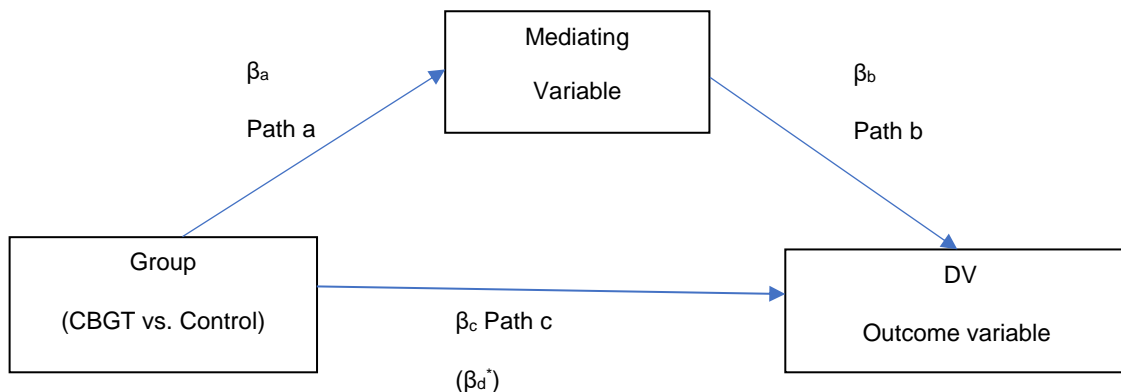


Figure 7.11 Diagram for mediating effect and different paths.

In these regression analyses the independent variable (IV) is always the same – group (intervention vs control). The dependent variables (DVs) vary – there are four primary outcome variables (SPIN, SIAS, SPS & BFNE-R) and three secondary variables (PHQ9, GAD7, & WSAS). The primary focus of this analysis is the mediating variable (MV) and their potential indirect role in influencing the dependent variables. Figure 7.11 offers a visual representation of the various steps in this regression analysis. Path a (b_a) measures the influence of the IV on the MV and is explained using a coefficient and probability value. Path b (b_b) measures the influence of the MV on the DV and is also described using a coefficient and probability value. Path c (b_c) evaluates the impact of the IV on the DV (also known as the direct effect). Finally, path c' ($b_{c'}$) is a measure of the total effects (i.e., a path \times b path + c path). The influence of the mediator on the relationship between the IV and the DV is known as the indirect effect and is obtained by the simple equation a path \times b path. The bias corrected bootstrap confidence intervals are provided in the tables and all use a 99% interval. If this confidence interval *does not* contain zero, then this is evidence of significant *indirect* effects. The MV variable used is the difference between t1 and t2 scores (i.e., t2-t1). The partially standardized effect size is utilized in this mediation analysis given that the IV is dichotomous (Hayes, 2018): c_ps can be interpreted as the number of standard deviations that the groups differ on average because of the impact of the total effects path, while c'_ps can be interpreted as the number of standard deviations that the groups differ on average because of the impact of the direct path. The number of standard deviations that the group differ on average because of the impact of the indirect path can be simply estimated by subtracting c'_ps from c_ps. The tables detailing the mediation results employ columns highlighting the indirect and direct effects to facilitate comparison.

In mediational analysis the concepts of partial and full mediation are often cited (Hayes, Montoya, & Rockwood, 2017). Full mediation is said to occur when the inclusion of a MV reduces the association between the IV and DV to zero. The assumption then is that

the indirect path (*ab*) accounts for all the observed effects on the DV. Partial mediation is said to occur when the MV accounts for some, but not all, of the association between the IV and DV. However, Hayes (2018) argues the full and partial mediation are outdated concepts, have little value and should be abandoned. Hayes, et al. (2017, p. 43) point out that when the direct path is zero this only means that on the aggregate, when all paths of influence between the IV and the DV are added up, IV and DV are linearly unrelated. This does not mean that the IV does not affect the DV. They also note that small sample sizes are more likely to find *full* mediation effects than larger sample sizes and that full mediation erroneously implies that that no additional research or theory is needed to explain the effect of the IV on the DV. Hayes et al. (2017) therefore recommend interpretation about mediation be based on an inference about the indirect effect only.

7.8.1 ISS. The hypothesis that internal shame (ISS) will mediate the relationship between group membership and all primary (SPIN, SIAS, SPS, BFNE-R) and secondary outcome measures (PHQ-9 GAD-7, WSAS) is supported (Section 5.4.1). Changes in the ISS-total has significant mediating effects on changes in all the primary and secondary outcome measures (Table 7.16).

Table 7.16
Internal Shame Scale (MV) – Total – mediation results on all outcome measures (DV)

Outcome Variable	a IV→MV	b MV→DV	c IV→DV	c' Total	Indirect <i>b</i>	99% CI		Indirect Effects	Direct Effects
Primary									
SIAS	-12.35***	0.26***	-5.20**	-8.44***	-3.24†	-6.17	-0.82	-.34	-.54
SPS	-12.35***	0.49***	-5.38**	-11.42***	-6.04†	-10.54	-2.47	-.49	-.43
SPIN	-12.35***	0.43***	-5.64***	-11.00***	-5.36†	-9.06	-2.51	-.45	-.48
BFNE-R	-12.35***	0.43***	-2.47	-7.84***	-5.36†	-8.60	-2.58	-.57	-.26
Secondary									
PHQ-9	-12.35***	0.14***	-0.58	-2.30*	-1.73†	-3.30	-0.49	-.34	-.11
GAD-7	-12.35***	0.16***	-0.20	-2.24*	-2.03†	-3.70	-0.81	-.43	-.04
WSAS	-12.35***	0.31***	-1.95	-5.76***	-3.81†	-6.51	-1.63	-.50	-.26

p* < .01 *p* < .001 ****p* > .0001 † Significant Indirect Effect Note. IV = independent variable; MV = mediating variable; DV = dependent variable; CI = confidence interval

The IV to MV path (b_a) and the MV to DV path (b_b) were highly significant ($p < .0001$). Moreover, the direct effects (path b_c) of the IV on outcome measures (BFNE-R, PHQ-9, GAD-7 and WSAS) are non-significant. The indirect effect of the IV via the ISS (MV) accounts for most of the change noted in these four outcome variables (DV). When the relative effect sizes of the direct path and the indirect path were appraised, and the following pattern emerged. Changes to the ISS-total as a result of participation in the group intervention had the most robust mediating influence effect for the primary outcome BFNE-R with the indirect effects accounting for 69% of the total effects, and the least mediating influence on the SIAS with the indirect effects account for 39% of the total effects. The indirect and direct effects were close to even for the SPS and SPIN. The total effects for the three secondary outcome measures were notably smaller than those reported for the primary outcome measures. However, the indirect effects accounted for the majority of the total effects: PHQ-9 = 76%, GAD-7 = 91% and WSAS = 66%. Decreases in the ISS-total were associated with increased reductions in all primary and secondary outcome measures.

The three ISS subscales were then evaluated individually to ascertain how much each of them contributed to the ISS's mediating influence. In each case the relative effect sizes of the direct path and the indirect path were considered. The hypothesis that the core inferiority subscale will have the largest significant mediating effect is supported (Section 5.4.1).

The Inferior subscale also exerted a strong mediating influence on all the outcome measures (Table 7.17). The IV to MV path (b_a) was highly significant ($p < .0001$). The MV to DV path (b_b) was largely highly significant ($p < .0001$) apart from the PHQ-9 secondary outcome variable. The direct effects of the IV on the secondary outcome measures (PHQ-9, GAD-7 and WSAS) and the primary outcome measure (BFNE-R) are statistically non-significant. The indirect effects of the IV via the Inferior subscale (MV) account for most of change noted in these four outcome variables (DV). The Inferior subscale had the highest

indirect coefficients of the three ISS subscales. The pattern of relative percentages of indirect to total effects were: BFNE-R (71%), SPS (51%), SPIN (49%), and SIAS (39%). Once more, the indirect coefficients for the three secondary outcome measures were smaller than those achieved for the primary outcome measures, yet indirect effects accounted for the bulk of the total effects: PHQ-9 = 71%, GAD-7 = 77%, and WSAS = 62%. Decreases in the Inferior subscale were associated with reductions in all primary and secondary outcome measures.

Table 7.17
ISS – Inferior Subscale (MV) - mediation results on all outcome measures (DV)

Outcome Variable	a IV→MV	b MV→DV	c IV→DV	c' Total	Indirect b	99% CI	Indirect Effects	Direct Effects	
Primary									
SIAS	-7.22***	0.46***	-5.12*	-8.44***	-3.32†	-6.29	-0.98	-.34	-.54
SPS	-7.22***	0.81***	-5.60*	-11.42***	-5.82†	-10.34	-2.52	-.47	-.45
SPIN	-7.22***	0.75***	-5.58*	-11.00***	-5.42†	-9.28	-2.55	-.46	-.47
BFNE-R	-7.22***	0.78***	-2.24	-7.84***	-5.60†	-8.96	-2.77	-.59	-.24
Secondary									
PHQ-9	-7.22***	0.22**	-0.69	-2.30*	-1.62†	-3.10	-0.45	-.32	-.13
GAD-7	-7.22***	0.24***	-0.50	-2.24*	-1.74†	-3.20	-0.56	-.36	-.11
WSAS	-7.22***	0.49***	-2.25	-5.76***	-3.54†	-6.15	-1.63	-.47	-.29

* $p < .01$ ** $p < .001$ *** $p < .0001$ † Significant Indirect Effect Note. IV = independent variable; MV = mediating variable; DV = dependent variable; CI = confidence interval

The Fragile subscale also exerted a significant mediating influence on all the outcome measures (Table 7.18).

Table 7.18
ISS – Fragile Subscale (MV) – mediation results on all outcome measures (DV)

Outcome Variable	a IV→MV	b MV→DV	c IV→DV	c' Total	Indirect b	99% CI	Indirect Effects	Direct Effects	
Primary									
SIAS	-3.08*	0.48***	-6.95***	-8.44**	-1.49†	-3.59	-0.14	-.15	-.73
SPS	-3.08*	1.08***	-8.10***	-11.42***	-3.32†	-7.04	-0.34	-.27	-.65
SPIN	-3.08*	0.91***	-8.21***	-11.00***	-3.30†	-5.89	-0.36	-.24	-.69
BFNE-R	-3.08	0.89***	-5.10***	-7.84***	-2.74†	-5.33	-0.32	-.29	-.54
Secondary									
PHQ-9	-3.08*	0.25**	-1.54	-2.30*	-0.77†	-1.91	-0.07	-.15	-.30
GAD-7	-3.08*	0.33***	-1.21	-2.24*	-1.03†	-2.41	-0.11	-.22	-.25
WSAS	-3.08*	0.60***	-3.92**	-5.76***	-1.84†	-4.41	-0.24	-.25	-.51

* $p < .01$. ** $p < .001$ *** $p < .001$ † Significant Indirect Effect Note. IV = independent variable; MV = mediating variable; DV = dependent variable; CI = confidence interval

The IV to MV path (b_a) was significant ($p < .01$) and the MV to DV path (b_b) was significant ($p < .0001$) apart from the PHQ-9 secondary outcome variable ($p < .001$). However, the indirect effects are notably less than the direct effects across all measures. The Fragile subscale indirect coefficients were lower than the ISS-total and Inferior subscale. The pattern of relative percentages of indirect to total effects were: BFNE-R (29%), SPS (24%), SPIN (22%) and SIAS (22%). The Fragile subscale indirect coefficients were lower than both the ISS-total and Inferior subscale. Once more, the indirect coefficients for the three secondary outcome measures were smaller than those reported for the primary outcome measures: PHQ-9 = 43%, GAD-7 = 47% and WSAS = 17%. Decreases in the Fragile subscale were associated with reductions in all primary and secondary outcome measures.

Finally, the Empty subscale demonstrated a significant mediating effect on all the outcome measures (Table 7.19).

Table 7.19
ISS – Empty Subscale (MV) – mediation results on all outcome measures (DV)

Outcome Variable	a IV→MV	b MV→DV	c IV→DV	c' Total	Indirect b	99% CI	Indirect Effects	Direct Effects
Primary								
SIAS	-2.05**	0.88**	-6.62***	-8.44***	-1.81†	-4.37 -0.19	-.19	-.69
SPS	-2.05**	1.29***	-8.76***	-11.42***	-2.65†	-6.36 -0.40	-.22	-.70
SPIN	-2.05**	1.14***	-8.66***	-11.00***	-2.34†	-5.23 -0.43	-.20	-.73
BFNE-R	-2.05**	1.09***	-5.59**	-7.84***	-2.24†	-4.87 -0.57	-.24	-.59
Secondary								
PHQ-9	-2.05**	0.62***	-1.04	-2.30*	-1.26†	-2.69 -0.31	-.25	-.20
GAD-7	-2.05**	0.70***	-0.80	-2.24*	-1.44†	-3.06 -0.30	-.30	-.17
WSAS	-2.08**	1.21***	-3.28*	-5.76***	-2.48†	-5.00 -0.69	-.33	-.43

* $p < .01$ ** $p < .001$ *** $p < .001$ † Significant Indirect Effect Note. IV = independent variable; MV = mediating variable; DV = dependent variable; CI = confidence interval

The IV to MV path (b_a) was significant ($p < .001$). The MV to DV paths (b_b) was highly significant ($p < .0001$) apart from the SIAS secondary outcome variable ($p < .001$). The direct effects path (b_c) of the IV on the secondary outcome measures (PHQ-9, and GAD-7) are statistically non-significant. The Empty subscale indirect coefficients were the lowest

of all three subscales. The pattern of relative percentages of indirect to total effects were: BFNE-R (29%), SPS (24%), SPIN (22%) and SIAS (22%). Once more, the indirect coefficients for the three secondary outcome measures were smaller than those reported for the primary outcome measures: PHQ-9 = 55%, GAD-7 = 64% and WSAS = 43%. Decreases in the Empty subscale were associated with reductions in all primary and secondary outcome measures. The hypothesis that levels of internal shame (ISS-total) will significantly reduce following CBGT when compared with controls was supported. (section 5.4.1.1; question iii). Results indicate that all the ISS indexes showed significant reductions at post group intervention (t2) (Table 7.20). The largest significant reductions were seen in the subscale Inferior ($\eta^2 = .198$) and in the total ISS score ($\eta^2 = .166$). Less marked - but still statistically significant reductions – were noted in the other two ISS subscales; Fragile ($\eta^2 = .062$) and Empty ($\eta^2 = .098$).

Table 7.20

Results of repeated measures design and Descriptive Statistics Time vs Group Intervention effect for mediator measures

Measure		Time 1 M (SD)	Time 2 M (SD)	Mean Diff	Partial η^2	Effect Size Cohen's
ISS Total	Intervention	84.03 (18.99)	70.56 (21.74)	13.47	.166**	0.71
	Control	85.42 (21.47)	84.38 (21.54)	1.04		
Inferior	Intervention	45.30 (9.72)	37.86 (11.57)	7.44	.198**	0.77
	Control	45.48 (9.82)	45.26 (10.33)	0.22		
Fragile	Intervention	25.63 (7.17)	21.91 (7.52)	3.72	.062**	0.48
	Control	26.70 (8.24)	26.06 (8.02)	1.25		
Empty	Intervention	13.11 (4.40)	10.80 (4.51)	3.72	.098**	0.52
	Control	13.25 (5.23)	13.06 (5.14)	0.64		

* $p < .01$ ** $p < .001$ ISS = Internal Shame Scale.

7.8.2 SAFE. The hypothesis that safety behaviours (SAFE-total) will mediate the relationship between group membership and all primary (SPIN, SIAS, SPS, BFNE-R) and secondary outcome measures (PHQ-9, GAD-7, WSAS) is supported (Section 5.4.2). Changes in the SAFE total scale and each of its three subscales were entered individually into the analysis. For the SAFE-total, both the IV to MV path (b_a) and all the MV to DV

paths (b_b) were highly significant ($p < .0001$) (Table 7.21). The direct effects path (b_c) of the IV to the secondary outcome measures (PHQ-9, GAD-7 and WSAS) were non-significant. Indirect effects account for the majority of the total effects in the SPS, BFNE-R and all secondary outcome measures. When the relative effect sizes of direct path and the indirect path were evaluated, and the following pattern emerged. Changes to the SAFE-total had the largest mediating influence effect for the primary outcome SPS with the indirect effects accounting for 54% of the total effects and the least mediating influence on the SIAS with the indirect effects accounting for 40% of the total effects. The indirect effects sizes of the SPIN and BFNE-R accounted for 45% and 52% of the total effects respectively. The indirect coefficients for the three secondary outcome measures were notably smaller than those achieved for the primary outcome measures. Indirect effects accounted for the bulk of the total effects: PHQ-9 = 71%, GAD-7 = 53% and WSAS = 53%. Decreases in the SAFE-total were associated with reductions in all primary and secondary outcome measures.

Table 7.21
SAFE – Total (MV) – mediation results on all outcome measures (DV)

Outcome Variable	a IV→MV	b MV→DV	c IV→DV	c' Total	Indirect <i>b</i>	99% CI	Indirect Effects	Direct Effects
Primary								
SIAS	-16.70***	0.20***	-5.18**	-8.44***	-3.86†	-5.85 -0.93	-.34	-.54
SPS	-16.70***	0.37***	-5.22*	-11.42***	-6.19†	-10.30 -2.81	-.50	-.42
SPIN	-16.70***	0.30***	-6.05**	-11.00***	-4.95†	-8.03 -2.12	-.42	-.51
BFNE-R	-16.70***	0.24***	-3.75*	-7.84***	-4.08†	-6.95 -1.82	-.43	-.40
Secondary								
PHQ-9	-16.70***	0.10***	-0.65	-2.30*	-1.66†	-3.30 -0.33	-.32	-.13
GAD-7	-16.70***	0.13***	0.01	-2.24*	-2.24†	-3.76 -0.10	-.47	-.00
WSAS	-16.70***	0.18***	-2.72	-5.76***	-3.04†	-5.97 -0.97	-.40	-.36

* $p < .01$ ** $p < .001$ *** $p < .001$ † Significant Indirect Effect Note. IV = independent variable; MV = mediating variable; DV = dependent variable; CI = confidence interval.

The three SAFE subscales were examined separately for their potential mediating effects on all the outcome variables. In each case the relative effect sizes of the direct path and the indirect path were considered.

The Inhibiting Behaviour (IB) subscale demonstrated a significant mediating effect on all outcome measures (Table 7.22). For the IB subscale, the IV to MV path (b_a) and the MV to DV paths (b_b) were all highly significant ($p < .0001$). The direct effects path (b_c) was significant for the SIAS and SPIN outcome variables only ($p < .01$). Indirect effects account for the majority of the total effects in the SPS, BFNE-R and all secondary outcome measures. The IB subscale had the highest indirect coefficients of the three SAFE subscales. The pattern of relative percentages of indirect to total effects were: SPS (66%), BFNE-R (65%), SPIN (53%), and SIAS (48%). The indirect coefficients for the three secondary outcome measures were smaller than those achieved for the primary outcome measures. Indirect effects accounted for the bulk of the total effects: PHQ-9 = 89%, GAD-7 = 98% and WSAS = 63%. Decreases in the IB subscale were associated with reductions in all primary and secondary outcome measures.

Table 7.22
SAFE – Inhibiting Behaviour (MV) – mediation results on all outcome measures (DV)

Outcome Variable	a IV→MV	b MV→DV	c IV→DV	c' Total	Indirect b	99% CI	Indirect Effects	Direct Effects
Primary								
SIAS	-7.07***	0.57***	-4.44*	-8.44***	-3.40†	-7.06 -1.54	-.42	-.46
SPS	-7.07***	1.07***	-3.85	-11.42***	-7.56†	-11.98 -3.75	-.61	-.31
SPIN	-7.07***	0.82***	-5.12*	-11.00***	-5.81†	-9.46 -2.58	-.49	-.44
BFNE-R	-7.07***	0.72***	-2.75	-7.84***	-5.09†	-7.98 -2.64	-.54	-.29
Secondary								
PHQ-9	-7.07***	0.29***	-0.27	-2.30*	-2.04†	-3.89 -0.45	-.40	-.05
GAD-7	-7.07***	0.31***	-0.02	-2.24*	-2.21†	-3.85 -0.76	-.46	-.01
WSAS	-7.07***	0.52***	-2.11	-5.76***	-3.65†	-6.72 -1.34	-.48	-.28

* $p < .01$ ** $p < .001$ *** $p < .001$ † Significant Indirect Effect Note. IV = independent variable; MV = mediating variable; DV = dependent variable; CI = confidence interval

For SAFE Active Impression Management subscale (AIM), the IV to MV path (b_a) was very significant ($p < .0001$) (Table 7.23). The MV to DV paths (b_b) were also significant ($p < .0001$) with the PHQ-9 slightly less so ($p < .001$). The PHQ-9 and the GAD-7 did not demonstrate a significant direct effect (b_c). However, in contrast to the IB subscale, the *direct* effects account for the majority of the total effects across all primary outcome measures and

one secondary outcome measure (WSAS). The AIM subscale indirect coefficients were lower than the SAFE-total and IB subscale. The pattern of relative percentages of indirect to total effects were: SPS (43%), BFNE-R (40%), SPIN (35%), and SIAS (31%). The indirect coefficients for the three secondary outcome measures were smaller than those achieved for the primary outcome measures and the direct effects were not statistically significant with the exception of the WSAS. Indirect effects mostly accounted for the bulk of the total effects with the exception of the WSAS: PHQ-9 = 53%, GAD-7 = 81%, and WSAS = 38%. Decreases in the AIM subscale were associated with reductions in all primary and secondary outcome measures.

Table 7.23
SAFE Active Impression Management (MV) – mediation results on all outcome measures (DV)

Outcome Variable	a IV→MV	b MV→DV	c IV→DV	c' Total	Indirect b	99% CI	Indirect Effects	Direct Effects
Primary								
SIAS	-7.98***	0.33***	-5.84**	-8.44***	-2.60†	-5.09 -0.71	-.27	-.61
SPS	-7.78***	0.62***	-6.50**	-11.42***	-4.91†	-8.99 -1.70	-.40	-.52
SPIN	-7.88***	0.50***	-7.04***	-11.00***	-3.96†	-7.21 -1.45	-.33	-.60
BFNE-R	-7.78***	0.40***	-4.68**	-7.84***	-3.16†	-5.82 -1.07	-.33	-.50
Secondary								
PHQ-9	-7.88***	0.15**	-1.10	-2.30*	-1.20†	-2.65 -0.08	-.24	-.21
GAD-7	-7.88***	0.23***	-0.42	-2.24*	-1.81†	-3.32 -0.67	-.38	-.09
WSAS	-7.88***	0.29***	-3.49*	-5.76***	-2.27†	-4.81 -0.42	-.30	-.46

* $p < .01$ ** $p < .001$ *** $p < .001$ † Significant Indirect Effect Note. IV = independent variable; MV = mediating variable; DV = dependent variable; CI = confidence interval

Table 7.24
SAFE Managing Physical Symptoms (MV) – mediation results on all outcome measures (DV)

Outcome Variable	a IV→MV	b MV→DV	c IV→DV	c' Total	Indirect b	99% CI	Indirect Effects	Direct Effects
Primary								
SIAS	-1.65	0.69**	-7.30***	-8.44***	-1.13†	-2.98 -0.01	-.12	-.76
SPS	-1.65	1.34***	-9.21***	-11.42***	-2.21†	-5.36 -0.03	-.18	-.74
SPIN	-1.65	1.14***	-9.13***	-11.00***	-1.87†	-4.56 -0.06	-.16	-.77
BFNE-R	-1.65	0.92***	-6.32***	-7.84***	-1.51†	-3.55 -0.05	-.13	-.70
Secondary								
PHQ-9	-1.65	0.46***	-1.54	-2.30*	-0.76†	-1.89 -0.01	-.15	-.30
GAD-7	-1.65	0.68***	-1.12	-2.24*	-1.12†	-2.48 -0.02	-.23	-.24
WSAS	-1.65	0.83***	-4.39**	-5.76***	-1.37†	-3.60 -0.004	-.19	-.57

* $p < .01$ ** $p < .001$ *** $p < .001$ † Significant Indirect Effect Note. IV = independent variable; MV = mediating variable; DV = dependent variable; CI = confidence interval

The SAFE subscale Managing Physical Symptoms (MPS) had a different outcome profile (Table 7.24). The IV to MV path (b_a) was not statistically significant while the MV to DV paths (b_b) were highly significant ($p < .0001$) with the PHQ-9 again slightly less so ($p < .001$). Moreover, most of the direct effect paths were highly significant ($p < .0001$) with the WSAS slightly less so ($p < .001$); the PHQ-9 and the GAD-7 recorded non-significant direct effects. Direct effects account for the majority of the total effect across all measures. Finally, MPS subscale achieved mediating effects on all outcome measures but less so than both the IB and the AIM scale. The MPS subscale indirect coefficients were the lowest of all three subscales. The pattern of relative percentages of indirect to total effects were: SPS (20%), BFNE-R (40%), SPIN (17%) and SIAS (16%). Once more, the indirect coefficients for the three secondary outcome measures were smaller than those achieved for the primary outcome measures. Indirect effects accounted for the bulk of the total effects: PHQ-9 = 33%, GAD-7 = 50% and WSAS = 25%. Decreases in the MPS subscale were associated with reductions in all primary and secondary outcome measures

Table 7.25

Results of repeated measures design and Descriptive Statistics Time vs Group Intervention effect for mediator measures

Measure		Time 1 M (SD)	Time 2 M (SD)	Mean Diff	Partial η^2	Effect Size Cohen's
SAFE	Intervention	59.22 (22.14)	41.54 (20.15)	17.68	.170**	0.80
	Control	57.16 (21.28)	56.22 (22.07)	0.94		0.04
IB	Intervention	26.36 (8.47)	18.63 (9.59)	7.73	.242**	0.91
	Control	26.16 (8.33)	25.81 (9.30)	0.35		0.04
AIM	Intervention	26.34 (12.28)	18.36 (10.35)	7.98	.127**	0.65
	Control	25.06 (11.70)	24.94 (11.80)	0.12		0.01
MPS	Intervention	6.52 (5.11)	4.56 (3.69)	1.96	.037	0.38
	Control	5.94 (4.89)	5.46 (4.89)	0.48		0.10

SAFE = Subtle Avoidance Frequency Examination. IB = Inhibiting Behaviours AIM = Active Impression Management. MPS = Managing Physical Symptoms

The hypothesis that levels of safety behaviour (SAFE-total) will significantly reduce following CBGT when compared with controls was supported (section 5.4.2.1; question ii). The potential impact of the group psychological intervention on the safety behaviour variable was explored (Table 7.25). Results indicate that all the SAFE indexes showed

significant reductions at post intervention (t2). The largest reduction was seen in the subscale Inhibiting Behaviours ($\eta^2 = .242$) with reductions also noted in the total Safe score ($\eta^2 = .170$), the Active Impression Management subscale ($\eta^2 = .127$). The Managing Physical Symptoms subscale demonstrated most resistance to the group intervention but still showed significant change ($\eta^2 = .037$).

Chapter 8: Discussion

Introduction 8.1

This chapter will discuss the implications of the findings of both the preliminary non-standardized study (chapter 3) and the primary standardized study (chapter 7) of this dissertation. The next and final chapter will examine both the theoretical and clinical implications of the dissertation as a whole, the limitations, future directions and will finish with an overall conclusion section.

The results of the primary study support the four major hypothesis with respect to the effectiveness of the CBGT intervention for SAD. Levels of social anxiety (SPIN, SIAS, SPS) and levels of fear of negative evaluation (BFNE-R) were significantly reduced following CBGT when compared with controls. Moreover, levels of secondary anxiety and depression were also significantly lower, and levels of work and social functioning were significantly improved following participation in the CBGT intervention.

The primary study outcomes also support the hypothesis that the changes in all primary outcome measures (SPIN, SIAS, SPS, BFNE-R) would be mediated by changes in internal shame and safety behaviours. However, the hypothesis that pre-treatment levels of trait anger, alexithymia, and fear of positive evaluation would significantly moderate all outcome measures (SPIN, SIAS, SPS, BFNE-R) following CBGT was largely not supported with a few exceptions.

8.2 CBGT Effectiveness for SAD

The results of both the preliminary and primary study support the hypothesis that CBGT based on Clark and Wells' (1995) individual CBT model is effective in a typical community-based location. In both studies, statistically significant effects were found across

all primary outcome measures. The non-randomized preliminary study achieved substantial effect sizes (Cohen's $d = 0.74$ to 1.21). When randomization was introduced in the primary study substantial effect sizes were maintained (Cohen's $d = 0.88$ to 1.13). This equates favourably with previous studies (e.g., Canton et al., 2012; McEvoy, 2007). In a meta-analysis of studies ($n = 12$) looking at the effectiveness of CBGT for SAD an average effect sizes (Hedge's g) of $.53$ with a range of $.04$ to 1.12 was reported (Wersebe et al., 2013).

Both the preliminary and primary study evaluated the impact of CBGT on secondary outcome measures. The preliminary study examined general anxiety and depression and reported post-intervention (t_2) reductions with Cohen's effect sizes of 0.74 and 0.98 respectively. The primary study examined GAD, depression and work and social functioning and reported post-intervention (t_2) reductions with Cohen's effect sizes ranging from 0.57 to 0.72 . As expected, these results are more modest when contrasted with the primary social anxiety outcome measures. Nonetheless, levels of co-morbid depression and GAD reduced significantly post intervention, despite not being specifically targeted during this CBT group intervention.

Moreover, these outcomes within the primary study were achieved despite all pre-treatment social anxiety symptom severity measures being significantly higher than established clinical norms for these psychometric tests. The SIAS and SPS were also higher than the pre-treatment scores in the Cognitive Therapy arm of the Clark et al. (2006, 2003) studies. Rather, they mirrored the symptom severity ratings of the McEvoy (2007) study that was carried out in a similar naturalistic setting. Moreover, in terms of co-morbidity the average severity of depression and anxiety were in the moderate range. Finally, the degree of functional impairment as determined by pre-treatment scores on the WSAS would be deemed moderately severe. Overall, the primary study sample was represented by individuals who had significant symptom impairment, co-morbidity and functional impairment.

While Cohen's effect size allows for statistical comparisons, they do not directly address clinical significance. While large effects are more likely to be clinically significant than small ones, even large effects can be clinically insignificant (Jacobson, Roberts, Berns, & McGlinchey, 1999). The preliminary study reported CSC's ranging from 28% to 45% across a range of social anxiety measures while the primary study reported CSC's ranging from 31% to 49%. The SPS and SIAS were used in both studies to facilitate comparison. CSC for the SPS was 28% in the preliminary study, and 31% in the primary study while the CSC's for the SIAS was 30% in the preliminary study, and 49% in the primary study.

With respect to secondary outcome measures, the preliminary study reported CSC's of 54% for both general anxiety and depression. Encouraging findings were also reported in the primary study: 45% of participants realized CSC's on the depression outcome measure, 45% on the GAD outcome measure and 38% on the work and social adjustment outcome measure. Despite robust clinically significant effect sizes a significant proportion of participants failed to achieve CSC (48-67%). Other studies have reported similar disappointing findings. McEvoy (2007) found around two-third failed to achieve CSC in his CBGT intervention. Mörtberg et al. (2007) reported 76% failed to attain CSC on the Social Phobia Composite for CBGT. Stangier et al. (2003) also used the SIAS and SPS in their study and reported a failure to achieve CSC rates of 64% on both measures for CBGT. It is precisely because of these disappointing findings that the need to identify moderators (variables that affect the relationship between group participation and desired outcomes) is of such importance.

The finding that levels of depression severity were improved in a CBGT intervention targeting SAD is encouraging. It may be that the alleviation of SAD results in the easing of depression. If depression is regarded as a secondary response to SAD, then this would make sense. According to Regier et al. (1998) social anxiety precedes depression in the majority of cases. It is also consistent with the findings of Marom et al. (2009) who reported a

reduction in depression levels following treatment for SAD. Moscovitch, Hofmann, Suvak, and In-Albon (2005) used mediational analysis to examine the interplay between anxiety and depression in CBGT for SAD. They reported that changes to levels of SAD as a consequence of CBGT for SAD showed a mediating influence on depression severity with indirect effects accounting for 91% of the total effects. In reverse, changes to levels of depression showed a mediating influence on SAD levels with indirect effects accounting for 6% of the total effects. Moscovitch et al.'s (2005) findings imply that the amelioration of depression is primarily a result of improvement in social anxiety.

In both the preliminary and primary studies, depression was principally treated as an outcome measure. However, the question of the impact of comorbid depression on CBT treatment effectiveness is still much disputed in the literature. In the preliminary non-standardized study, pre-intervention (t1) levels of depression (BDI-II) were associated with changes in all outcome variables, such that those with the highest level of pre-intervention depression reported less post-treatment gains. However, these findings were based on correlational analysis only. In the primary standardized study, levels of depression were evaluated using the PHQ-9. When depression was evaluated as a potential moderator no significant effect on any of the primary outcome measures were found. These results support several other studies that have reported that pre-treatment comorbid depression does not negatively influence anxiety symptom outcomes following CBT (e.g., Kampman et al., 2008; 2013; Schuurmans et al., 2009) and challenges others studies that have reported that it predicts worse outcomes (e.g., Chambless et al., 2000; Chambless et al., 1997; Scholing & Emmelkamp, 1993, 1999). It is difficult to explain the difference in findings. It may be a feature of how depression is determined (interview *vs.* self-report measure) or the statistical analysis employed. However, the primary study findings that depression improves as a result of participation in CBGT for SAD, coupled with Moscovitch et al.'s (2005) findings that reduction in SAD mediates reduction in depression mitigates against the hypothesis of

depression as a significant moderator in CBGT for SAD. This particular finding is encouraging as the development of comorbid depression adds to the overall burden of those with SAD. It also means that individuals with comorbid depression need not be excluded from CBGT interventions for social anxiety.

The finding that work and social functioning improves as a result of the CBGT is also reassuring given the functional impact of SAD is wide ranging and significant (Stein & Kean, 2000). The authors of the WSAS developed the scale as traditionally, more attention has been paid to symptoms than to functional impairments (Mundt et al, 2002). Utilizing the Sheehan Disability Scales (SDS; Sheehan, Harnett-Sheehan, & Raj, 1996) Aderka et al. (2012) reported substantial levels of functional impairment among treatment-seekers with SAD, particularly related to functioning in work, studies, and social life. Moreover, comorbidity with depression was associated with elevated levels of functional impairment, especially in family life. It was difficult to find studies reporting the impact of CBGT on work and social functioning. Blanco et al. (2010), also employing the SDS, reported no positive impact of CBGT for SAD on work or social functioning ($d = 0.09$).

As expected, all four primary outcome measures were highly correlated. The measures that focused on symptoms (SPIN, SIAS and SPS) produced the highest correlations ($r = .62$ to $.72$). The BFNE-R, which taps into cognitive evaluations, produced more moderate yet still robust correlations with the SPIN, SIAS and the SPS ($r = .46$ to $.51$). Support for the validity of psychometric measures is typically achieved through correlation with other established theoretically-related scales. The SIAS and SPS (Mattick & Clarke, 1998) has been utilized in numerous studies since their original development (e.g., Heimberg et al., 1998; Mörtberg et al., 2007; Stangier, et al., 2003) and the original authors noted a similar intercorrelation of the two scales ($r = .72$) and strong correlations with the original FNE (Watson & Friend, 1969) (SPS = $.66$ and SIAS = $.60$). Mattick and Clarke (1998) also

reported strong intercorrelations with the measures of general anxiety and depression consistent with the findings in our primary study.

As already noted, despite both the preliminary and primary study producing healthy clinically significant effect sizes a substantial proportion of participants in both studies failed to achieve CSC. As a result of the need to identify moderators, the primary study analysed three different potential moderator variables: trait anger, alexithymia and fear of positive evaluation. The following section will discuss the implications of the result of the primary standardized study's moderation analysis.

8.3 Impact of Moderators.

8.3.1 Trait anger. The pre-treatment anger profile reported in the primary standardized study mirrored the findings of Erwin et al. (2003) in that participants provided significantly higher scores than normal controls on the trait anger (T-Ang), Trait Anger/Temperament (T-Ang/T) and Trait Anger/Reaction (T-Ang/R). This suggests that individuals with SAD are more likely to experience anger without provocation and exhibit a greater propensity to become angry when criticized or perceived to be treated unfairly, as well as when they receive negative feedback, or when they believe they are being treated badly. Anger Expression-In (AX-I) and Anger Control-Out (AC-O), were also significantly higher than community norms. These two STAXI-II subscales are rather complementary and suggest that higher than normal levels of energy are employed to monitor and *suppress* the outward physical or verbal expressions of anger. As anticipated, the Anger Expression-Out (AX-O) scale was lower than normal suggesting anger is rarely outwardly expressed in a poorly controlled manner. The Anger Control-In (AC-I) index was comparable to normal controls, which suggests typical effort to relax, and calm down. However, the hypothesis that pre-intervention (t1) trait anger levels will significantly moderate the results of all

primary outcome measures following CBGT intervention was *not* supported. Moreover, none of the trait anger subscales (anger temperament, anger reaction, anger expression-out, anger expression-in, anger control-out, and anger control-in) had any moderating effect on any of the primary outcome measures. In addition, trait anger had no significant moderating effect on any of the secondary outcome measures. However, there was a tendency for anger expression-out to moderate the impact on the fear of negative evaluation scores ($p < .03$): higher baseline anger expression-out scores somewhat predicted *smaller* reductions on this primary outcome measures from pre-to-post intervention. The Anger Expression-Out (AX-O) scale describes the extent to which anger is expressed in an outwardly undesirable and poorly controlled manner. Erwin et al. (2003) reported higher pre-treatment scores on anger reaction, which significantly predicted poorer post-treatment outcomes on the BFNE (Leary, 1983). Anger reaction and poorly controlled outward expression of anger are closely related constructs (Spielberger, 1999).

Theoretically, it seems plausible that both social anxiety and anger are provoked by perceived negative evaluation and thus perceived social rejection (Alden & Wallace, 1995; Leary et al., 1988). Anger may also be a product of perceiving the distress and isolation associated with social anxiety as unfair. If this anger is openly expressed it may increase the real or perceived threat of further negative evaluation, and therefore there is a tendency towards anger suppression. As noted earlier, there are significant tendencies to suppress anger rather than express it in this sample. However, for individuals with SAD, and with poorly controlled expressions of anger, the challenge of reducing fear of negative evaluation may be more problematic. This may be the mechanism underlying the finding tendency for anger expression-out to moderate the impact on the fear of negative evaluation scores. Expressions of anger can elicit negative impressions in the recipient (van Kleef, De Dreu, & Manstead, 2004) who may then be unwilling to engage in further social interaction (Kopelman, Rosette, & Thompson, 2006). This may then be perceived by the individual with

SAD as a social rejection thus supporting a core belief that others are harshly judgemental. Borkovec et al. (2002) reported poorer responses in CBT for SAD for individuals who present with hostile-dominant problems.

In the primary study, when anger was treated as an outcome measure the only significant improvements noted were a reduction in anger suppression and reactivity. This been noted the treatment gains were relatively small. This closely reflects Erwin et al.'s (2003) study which found significant reductions in the trait-anger and expression-in (suppression) following CBGT for SAD. It is argued the tendency of individuals with SAD to suppress anger might be explained by general tendencies towards experiential avoidance (Breen & Kashdan, 2011). The finding that anger suppression was strongly positively correlated with all safety behaviour measures, and in particular inhibiting behaviours ($r = .37$) and active impression management ($r = .39$) tends to support this supposition. It implies that anger is inhibited and the potential for conflict and social rejection is avoided. Moreover, none of the other anger subscales were correlated with any of the safety behaviour subscales with just one exception (expression out with active impression management: $r = .17$). It is possible that the focus of CBGT for SAD on reducing behavioural, and thus experiential avoidance, may account for these therapeutic gains. Alternatively, it could be the group's validation of grievance anger related to previous emotional abuse via longitudinal formulations that quells the experience of anger and thus the need to suppress it. The finding that anger suppression was strongly positively correlated with all social anxiety measures, and fear of positive evaluation may indicate a general tendency toward experiential avoidance.

8.3.2 Alexithymia. The pre-treatment (t1) alexithymia scores (TAS-20) reported in the primary study were significantly higher than published community norms and consistent with clinical norms for a social anxiety population in a western population (Cox et al., 1995).

Fukunishi et al. (1997) found alexithymia to be present in 58% of individuals with SAD in a Japanese sample. Cultural factors likely play a role in alexithymia (Dere, Falk, & Ryder, 2012).

The hypothesis that pre-intervention (t1) alexithymia levels will significantly moderate the results of all primary outcome measures following CBGT intervention for SAD was not supported. Moreover, none of the three alexithymia subscales (difficulty describing feelings, difficulty identifying feelings and externally orienting thinking) had any moderating effect on any of the primary outcome measures. That been said, there was a propensity for alexithymia (TAS-total) to moderate the impact on the social performance outcome scores ($p < .04$): higher baseline alexithymia scores somewhat predicted *smaller* reductions in pre-to-post-intervention social performance scores. Moreover, alexithymia had no moderating effect on any of the secondary outcome measures.

Alexithymia is considered by some theorist as reflecting the avoidance of unwanted internal experiences (Franzoni et al., 2013; Taylor et al., 1997). Panayiotou et al. (2018) reported that experiential avoidance of internal experiences and suppression mediated the relationship between alexithymia and social anxiety. Moreover, Panayiotou et al. (2018) reported that experiential avoidance partially mediated the relationship between behavioural avoidance and social anxiety. The primary study findings, with respect to alexithymia's tendency to moderate the outcome on one of the social anxiety scales, may reflect the negative impact of alexithymia on behavioural exposure via alexithymia propensity towards experiential avoidance. However, the impact was not statistically significant, and more importantly from a clinical perspective, aspects of alexithymia were clinically improved.

Levels of alexithymia (TAS-20: ≥ 61) at pre-intervention (t1) for the control and intervention arms of the primary study were 38% and 40% respectively. At post intervention (t2) these percentages had changed to 35% (Control) and 21% (Intervention). In the primary

study, when alexithymia was treated as an outcome measure the only significant improvements noted were in the capacity to describe feelings. However, when these findings are taken in combination, CBGT for SAD appears to improve aspects of alexithymia. These findings are consistent with Rufer et al. (2010) who reported reduced total alexithymia levels following CBGT treatment for panic disorder, which was mostly attributed to significant improvements in both identifying and describing feelings. The primary study also found that alexithymia was strongly correlated with all internal shame measures. Franzoni et al. (2013) also found alexithymia to be strongly correlated with shame in a study of females with eating disorders. They ventured that alexithymia may be viewed as a maladaptive reaction to previous hurtful shaming experiences. Early shaming experiences associated with childhood emotional abuse have also been linked to the development of social anxiety (Bandelow et al., 2004; Bruce et al., 2012; Knappe et al., 2012). Suslow et al. (2000) argued that the difficulties describing feelings subscale (TAS-20) did not measure impairment in describing emotions but aspects of shame, anxiety and shyness. In the primary study, all aspects of internal shame significantly improved following CBGT intervention. Saarijärvi et al. (2006) have maintained that alexithymia reflects both a stable personality trait and a state-dependent phenomenon. As a potential maladaptive state dependent response to shame and social anxiety reflecting the avoidance of undesirable internal experiences, then it is feasible that a reduction in shame and social anxiety would lead to a reduction in alexithymia.

The debate surrounding the alexithymia construct (stable personality trait or a state dependent phenomenon) will likely continue but the encouraging findings of the primary study that alexithymia can be ameliorated suggest that, in the context of SAD, it behaves more like a state dependent phenomenon. Moreover, given that high levels of alexithymia are associated with severe symptomatology, high comorbidity and significant functional impairment, the finding that it can be improved is of clinical importance (Bagby et al., 1994). Ertekin et al. (2015) reported that the connection between alexithymia and dysfunction was

stronger when comorbid major depression was present. The CBGT format for SAD utilized in both preliminary and primary studies significantly reduced both social anxiety and depression severity.

8.3.3 Fear of positive evaluation. The fear of positive evaluation pre-treatment (t1) scores were significantly higher than published clinical norms (Fergus et al., 2009). This suggests that this sample had strong issues with positive evaluation or praise. Similar to earlier findings, fear of positive evaluation was strongly correlated with measures of fear of negative evaluation (e.g., Fergus et al., 2009; Weeks & Howell, 2014) and measures of social anxiety (e.g., Fergus et al., 2009; Weeks et al., 2012).

The hypothesis that pre-treatment (t1) levels of fear of positive evaluation will significantly moderate the results of all primary outcome measures following CBGT intervention was *not* supported. However, with respect to the secondary outcome measures a significant moderating impact was found for the work and social functioning measure ($p < .005$); higher pre-intervention fear of positive evaluation predicted greater improvement. This finding was unexpected. The Clark and Wells (1995) model of CBT for SAD highlight the importance of video-taped role plays that are later reviewed and evaluated. One of the rationales for role plays is driven by the finding that individuals with SAD constantly generate unflattering and inaccurate observer perspective images of themselves, which appear most often to be a reactivation of early images of themselves that were triggered by early socially traumatic experiences (Hackmann et al., 2000). Positive aspects of their social encounters are often discounted as not significant, which tends to support the construct of fear of positive evaluation. The recorded role-plays are utilized to challenge the critical and erroneous images of themselves by providing unequivocal disconfirmatory evidence. Therefore, it was expected that the stronger the impulse to discount positive information the

greater negative impact this would have on therapeutic gains. The finding that higher levels of fear of positive evaluation would positively predict better outcomes in work and social functioning is therefore perplexing.

The primary study found a strong positive correlation between work and social functioning measure and fear of positive evaluation ($r = .37$). The work and social functioning measure was also correlated with measures of depression, GAD, fear of negative evaluation and all social anxiety measures. Given that SAD is associated with serious social, occupational and educational impairments such positive correlations are to be expected (Stein & Kean, 2000). Furthermore, in the primary study, when fear of positive evaluation was treated as an outcome measure, moderate but clinically significant improvements were noted (Cohen's $d = 0.55$). This finding is consistent with Weeks et al. (2012) who reported improvements in fear of evaluation following CBT for SAD. However, the improvements made for fear of negative evaluation were more substantial (Cohen's $d = 1.06$). It is possible that fear of positive evaluation has much more influence on work and social functioning than other aspects of SAD (e.g., fear of negative evaluation) and the modest reductions achieved in fear of positive evaluation from participation in CBGT for SAD additionally benefited those high on this attribute.

Finally, robust positive correlations were also found between fear of positive evaluation and all safety behaviour subscales. Gilbert's (2001) evolutionary theories of social anxiety predicts that fear of positive evaluation would most likely elicit submissive safety behaviours (e.g., avoiding eye contact), which is similar to the SAFE inhibiting subscale. While the largest correlation found was with the inhibiting behaviour subscale ($r = .42$), the active impression management subscale ($r = .40$) was also large.

As well as the need to identify moderators in CBGT for SAD, the need to investigate how CBGT interventions for SAD wield their effects on outcome is also of critical

importance. The primary study analysed two different potential mediator variables: internal shame and safety behaviours. The next section will discuss the implications of the result of the primary standardized study's mediation analysis.

8.4 Impact of mediators

8.4.1 Internal Shame. As expected, the recorded pre-treatment levels of internal shame were significantly higher than published community norms. However, we were unable to find any studies on individuals with SAD which have employed the ISS to make a comparison.

The Internal Shame Scale (ISS) and each of its three subscales were analysed for their potential mediating effects on all outcome measures. The hypothesis that internal shame will mediate the relationship between group membership and all primary outcome measures following CBGT intervention for SAD *was* supported. The primary study found that internal shame had a robust significant mediating effect not only on all primary but on all secondary outcome measures as well. The SPS had the highest *indirect* coefficient followed closely by SPIN and BFNE-R, with the SIAS the weakest. As anticipated, the total effect coefficients for the three secondary outcome measures were notably smaller than those achieved for the primary outcome measures, but most gains were made via the mediating route. For the secondary measures, the WSAS had the highest *indirect* coefficient, followed by the GAD-7 and the PHQ-9.

The three ISS subscales were also evaluated individually to ascertain how much each of them contributed to the ISS's mediating impact. The inferior subscale achieved the highest indirect coefficient similar to the ISS-total. The pattern of relative strengths of indirect coefficients for both the primary and secondary outcome measures were also similar to the

ISS-total. In contrast, the fragile and empty subscales had lower indirect coefficients and the ratio of indirect to direct effects strongly favoured direct effects. However, all indirect coefficients were still clinically significant. Additionally, for the fragile and empty subscales, the pattern of relative magnitudes of indirect coefficients for both the primary and secondary outcome measures were also similar to the ISS-total and the inferior subscale.

In the primary study, when internal shame and each of its three subscales (inferior, fragile and empty) were treated as outcome measures, significant improvements were noted across all measures. Furthermore, the inferiority subscale achieved the most significant post-intervention (t2) reductions (Cohen's $d = 0.77$). Collectively, these findings supported the hypothesis that the inferiority subscale would have the largest mediating effect. The idea that individuals with SAD are inhibited in social situations because of feelings of inadequacy and a sense of relative inferiority is clearly identified in the DSM-IV diagnostic criteria (APA, 1994). That CBGT for SAD would modify internal shame (and in particular feelings of inferiority) which then in turn would positively influence social anxiety related outcomes is theoretically consistent with the APA (1994) definition of SAD. It is possible that the cognitive distortion, projective self-appraisal, played an important role here. The self-appraisal of relative inferiority is assumed to be held by others: "*I think I am inferior therefore others think I am inferior*". This is a variation of mind-reading and akin to the false consensus effect (Aronson, Wilson, & Akert, 2016). If self-appraisal of inferiority is improved through CBGT for SAD, then projective self-appraisal can potentially be advantageous: "*I think I am adequate therefore others think I am adequate*". This may then undermine fears of negative evaluation, which is a central tenet to Clark and Wells' (1995) CBT model of SAD. That the experience of participation in CBGT for SAD can alleviate a sense of inferiority (along with a reduced sense of fragility and emptiness), which can then lead to improved social anxiety severity outcomes and work and social functioning (over and above depression and GAD) is satisfying.

The propensity to feel shame is considered an innate human capacity (Gilbert & McGuire, 1998). The experience of being negatively judged excessively is believed to lead to toxic shame (Lewis, 1992). The relationship between childhood distress associated with emotional abuse or neglect, abandonment, excessively judgemental or punitive parental styles and the internalization of shame has been established in many studies (Gilbert, 2000; Kim et al., 2009; Pinto-Gouveia & Matos, 2011; Webb, Heisler, Call, Chickering, & Colburn, 2007). Likewise, a relationship between childhood abuse and the later development of social anxiety has also been established (Bandelow et al., 2004; Bruce et al., 2012; Knappe et al., 2012). It is theorized that early experiences of childhood trauma are associated with the development of social anxiety through the internalization of a shame-based cognitive-affective schema, characterized by a global sense of inadequacy and inferiority (Shahar et al., 2015), or logged in autobiographical memory as conditioned emotional responses (Gilbert, 2003). If this is the case, then any intervention that can challenge internal shame based cognitive-effective schemas, should also alleviate symptoms of social anxiety. Consistent with earlier findings (e.g., Hedman et al., 2013; Matos et al., 2013) significant correlations were found in this study between measures of internal shame and all measures of social anxiety. In Lee et al.'s (2014) mediational study internal shame did not directly influence social anxiety but did so indirectly via experiential avoidance. They showed that internal shame negatively impacted on social anxiety through avoidance. Avoidance also makes sense in terms of reducing the capacity to engage in upward social comparisons (Wood, 1996). People do compare themselves to others in social situations (Antony, Rowa, Liss, Swallow, & Swinson, 2005). If the outcome of upward comparison is the perception that others are superior, then the inferiority aspect of internal shame may be activated. This then implied that intervention that might reduce internal shame, especially a sense of inferiority, would reduce the need for avoidance and subsequently social anxiety.

Hedman et al. (2013) demonstrated that CBT for SAD, based on the treatment protocols of Clark and Wells (1995), in both individual and group formats was effective at reducing internal shame. A similar finding was achieved in our primary study with a significant reduction in reported levels of internal shame post-intervention. The same authors also found that changes in internal shame were almost ($r = .42, p = .06$) significantly correlated with changes in social anxiety outcome measures (LSAS-SR) in the group format but negatively correlated ($r = -.17, p = .47$) in the individual format. This implies that internal shame reduction is important for CGBT social anxiety outcomes but not for individual CBT. The primary study findings corroborate and strengthen Hedman et al.'s (2013) findings by employing formal mediational analysis. Future research might subject Clark and Wells' (1995) individual CBT to a similar mediational analysis. Moreover, the underlying rationale of the findings that internal shame reduction mediates CBGT for SAD outcomes and not individual CBT needs to be unravelled if the pattern is consistently replicated.

The finding that CBGT for SAD does ameliorate internal shame and in particular a sense of inferiority, likely returns us to Yalom's (1995) unique therapeutic group factors. The lived experience of a shared experience with other group members was originally termed universality. The perceived similarities between CBGT members may help to facilitate self-disclosure and group cohesion (Hogg, 1993; Roark & Sarah, 1989). Moreover, the propensity for upward social comparisons in this setting is likely curtailed. According to Yalom (1995) cohesion is the connectedness of group members to one another and is equivalent to the therapeutic relationship in individual psychotherapy. This circular causality continues as cohesion facilitates further self-disclosure (Budman, Soldz, Demby, Davis, & Merry, 1993). From a behaviour perspective, the action urge associated with shame is to avoid the experience of exposure of perceived personal flaws to others. The opposite, to disclose sensitive personal information is considered to be a critical aspect of psychotherapy, a view held by a wide range of theoretical perspectives (Farber et al., 2004), and positively

linked with therapy outcomes (Farber & Hall, 2002). According to Yalom (1995) client self-disclosure is the fundamental process that lies beneath all therapeutic factors in group therapy. Moreover, shame and embarrassment is one of the most common reason for failure to disclose (Kelly & Yuan, 2009). Dialectical Behavioural Therapy developed by Linehan (1993) emphasises the usefulness of opposite action in emotional regulation skills, i.e., to behave in opposition to the natural action urge of an emotion. In one study, Lenihan established that acting opposite to shame via self-disclosure resulted in shame reduction (Rizvi & Linehan, 2005). Self-disclosure in a group setting may be more powerful and yet challenging than in an individual setting. In group it may facilitate the recognition of similarities in others, which may facilitate the normalization of shame-based experiences. According to Yalom (1995) acceptance of the group members to personal material that is disclosed facilitates self-acceptance.

8.4.2. Safety behaviours. Given the clinical population under evaluation, pre-treatment levels of safety behaviours were significantly higher than published community norms. They were also higher than the published *clinical* norms provided by the scale developers (Cuming et al., 2009). However, Skocic, Jackson, Hubert, and Faber (2016) reported a comparable mean in their clinical sample. Pre-treatment levels of safety behaviour (SAFE) were highly correlated with all pre-treatment levels of social anxiety (SIAS, SPS, SPIN and BFNE-R) supporting McManus et al.'s (2008) finding that individuals with high levels of SAD engage in more safety behaviours. The safety behaviour measure was also correlated with all secondary outcome measures (PHQ-9, GAD-7 and WSAS), fear of positive evaluation, alexithymia (though not the externally orientated thinking subscale), and internal shame. The only correlation with trait anger was the anger expression-in subscale.

The safety behaviour scale (SAFE) and each of its three subscales were examined for their mediating effects on all outcome measures. The hypothesis that safety behaviours will mediate the relationship between group membership and all primary outcome measures following CBGT intervention for SAD *was* supported. In addition, the primary study found that safety behaviours also had a robust significant mediating effect on all secondary outcome measures. The SPS had the highest *indirect* coefficient followed closely by SPIN and BFNE-R, with the SIAS the weakest. This was the same pattern identified for the ISS-total and each of the ISS's subscales. The total effects coefficients for the three secondary outcome measures were notably smaller than those achieved for the primary outcome measures, but most gains were made via the mediating route. For the secondary measures, the WSAS had the highest *indirect* coefficient, followed by the GAD-7 and the PHQ-9. Again, the same pattern found for the ISS-total and each of the ISS's subscales.

The three SAFE subscales were also evaluated individually to ascertain how much each of them contributed to the overall SAFE's mediating influence. The inhibiting behaviour subscale achieved the highest *indirect* coefficients similar to the SAFE-total. In contrast, the active impression management (AIM) and managing physical symptoms (MPS) subscale had *lower* indirect coefficients and the ratio of indirect to direct effects strongly favoured direct effects. However, all indirect coefficients were still statistically significant. The AIM and MPS subscale's pattern of relative strengths of indirect coefficients for the both the primary and secondary outcome measures were also similar to the SAFE-total and the IB subscale. The pattern of relative strengths of indirect coefficients for both the primary and secondary outcome measures were also similar to the SAFE-total.

In the primary study, when safety behaviour and each of its three subscales (inhibiting behaviours, active impression management, and managing physical symptoms) were treated as outcome measures significant improvements were noted across all measures. Furthermore, the inhibiting behaviour subscale achieved the most significant post-

intervention (t2) reductions (Cohen's $d = 0.91$). Collectively, these findings upheld the hypothesis that the inhibiting behaviour subscale would have the largest mediating effect. The idea that individuals with SAD are inhibited in social situations is clearly identified in the DSM-IV diagnostic criteria (APA, 1994).

Results indicate that all the SAFE subscale showed significant reductions at post intervention (t2). The preliminary study also reported significant reductions in safety behaviours post intervention ($d = 1.21$). As already noted, the largest reduction was seen in the subscale Inhibiting Behaviours ($d = 0.91$) with reductions also noted in the total SAFE score ($d = 0.80$), and the Active Impression Management subscale ($d = 0.65$). The Managing Physical Symptoms subscale demonstrated the most resistance to the group intervention but still showed significant change ($d = 0.38$).

The number of published studies that have evaluated the potential mediational role of safety behaviours and social anxiety severity are limited. One study reported that safety behaviours mediated the association between self-focused attention and social anxiety and that self-focused attention mediated the association between safety behaviours and social anxiety severity (Desnoyers et al., 2017). This pattern of influence was found in both CBGT and mindfulness and acceptance-based group therapy (MAGT) for SAD. Hedman et al. (2013) found *no* mediating role of avoidance behaviours on CBGT for SAD outcome measures using the Social Phobia Weekly Summary Scale (SPWSS; Clark et al., 2003); however, the CBGT format evaluated used the cognitive model developed by Heimberg and colleagues (e.g., Heimberg & Becker, 2002). In contrast, they did find that avoidance behaviours *did* mediate the outcomes in Clark and Wells (1995) informed individual CBT. This finding perplexed Hedman et al. (2013) who expected the CBGT format, with its built-in exposure, to produce a mediating role for avoidance behaviour. In an attempt to explain this finding, they speculated that individual CBT allowed for more personalized interventions to reduce avoidance behaviours and targeted more specific negative

assumptions than CBGT and so would generate greater generalizability than CBGT. However, Hedman et al. (2013) did find that self-focused attention mediated outcomes in both CBGT and individual CBT and that changes in self-focused attention *preceded* changes in outcomes. Desnoyers et al.'s (2017) findings suggest that the relationship between self-focused attention and safety behaviours (e.g., avoidance) is bidirectional. The most notable limitations of the Hedman et al.'s (2013) study were limited power, the lack of randomization from a single cohort (the data was collected from two separate studies) and the fact that the two trials were not parallel. These limitations are addressed in this current study. Furthermore, the finding that safety behaviours, and in particular inhibiting behaviour, did have a significant indirect mediating effect in our primary study, suggests that the benefits of individual CBT in terms of challenging avoidance can be maintained in a Clark and Wells' (1995) informed CBGT format.

Safety behaviour reduction is a deliberate intervention in CBT and numerous RCTs have found that reducing safety behaviours resulted in superior reductions in an array of social anxiety outcome measures (e.g., McManus et al., 2008; Stangier et al., 2006). This is to be expected given the central maintenance role of safety behaviours CBT models in SAD. Unadulterated exposure is impeded by safety behaviours. It is therefore difficult to understand Hedman et al.'s (2013) findings of *no* mediating role of avoidance behaviours on CBGT for SAD. The strength of this primary study is that it has employed formal mediational analysis allowing for more robust causal inferences to be made. The finding in this primary study, that safety behaviours also strongly mediated the results of all of the secondary outcome variables (depression, GAD and work and social functioning) was also encouraging.

Despite not being clinically targeted, levels of depression improved as a function of group participation. While, the relationship between SAD and depression is well established

the mechanism by which SAD results in secondary depression is less clear. Individuals with SAD have a reported three fold increased chance of developing co-morbid depression (Beesdo et al., 2007) and reported a doubling of suicidal ideation (Thibodeau et al., 2013). Thwarted belongingness is positively correlated with social anxiety and an elevated suicide risk (Arditte et al., 2016). A diagnosis of depression tends to follow the onset of social anxiety in the majority of cases in which they co-occur first (Regier et al., 1998). Therefore, the finding that levels of depression improve as a result of group participation is clinically relevant and important. In an extensive analysis of multiple variables, Beesdo et al. (2007) reported that *behavioural inhibition* was the only variable that remained significant in their overall model for predicting secondary depression among individuals with SAD. Behavioural inhibition is also associated with social anxiety (Muris, Merckelbach, Schmidt, Gadet, & Bogie, 2001). Moreover, in a more recent study, experiential avoidance *partially* mediated the relationship between behavioural avoidance and social anxiety (Papachristou et al., 2018). It seems likely that the overall result of both is increased social isolation, loneliness and a reduced sense of social connectedness. There is strong evidence that loneliness is associated with depression (Weeks, Michela, Peplau, & Bragg, 1980).

Both internal shame and safety behaviours are mediators between group status (intervention vs control) and depression outcomes. Many studies have shown an association between excessive shame and numerous mental health difficulties, including depression (e.g., Cheung, Gilbert, & Irons, 2004). Carvalho, Dinis, Pinto-Gouveia, and Estanqueiro (2015) found that the nature and frequency of early shaming experiences resulted in the experience of greater depressive symptoms and experiential avoidance in later life. They suggest that shame experiences result in an over stimulation of the defensive/threat system that can then, over time, be more easily activated (Schore, 1998) and negatively impact on the acquisition of emotional regulatory skills (Kring & Sloan, 2010). The failure to acquire adaptive emotional regulation skills may be reflected in higher rates of alexithymia among

individuals with SAD. As noted earlier, alexithymia may be considered as a state dependent reaction designed to facilitate the avoidance of unwanted internal experiences (Franzoni et al., 2013; Taylor et al., 1997). Carvalho et al. (2015) further speculated that current life events associated with shaming memories elicit the same emotional response, which is managed through experiential avoidance. In this context, behavioural avoidance attempts to avoid current life events that provoke such emotional responses. The findings of this primary study suggest that depression is indirectly alleviated in CBGT for SAD through its impact on both internal shame and avoidance behaviours.

Interestingly, both internal shame and safety behaviours had a significant positive indirect effect on work and social functioning outcomes. The Clark and Wells' (1995) model predicts that behavioural exposure reduces levels of social anxiety, which then would likely improve general social functioning (WSAS). Taylor and Alden (2011) reported that the reduction in safety behaviours during social interactions by individuals with SAD elicited more positive reactions by their conversation partners primarily because it facilitated increased social approach behaviour.

The following concluding chapter will consider the implications of this chapter and weave them together, along with the implications of the dissertation as a whole. It will address both the theoretical and clinical implications, the limitations, future directions and conclusion.

Chapter 9: Conclusions

9.1 Treatment Implications

9.1.1 CBGT for SAD. Both the preliminary and primary study support the argument that CBGT, based on Clark and Wells' (1995) individual CBT for SAD model, can be associated with good clinical outcomes when delivered in a community-based location. That these outcomes were achieved, despite significantly high levels of pre-treatment social anxiety symptoms severity and significant co-morbidity, imply that this CBGT format is suitable for individuals at the more acute end of the SAD spectrum. Moreover, in the preliminary study, 12-month follow-up data indicated that treatment gains were maintained.

SAD is associated with wide ranging and significant negative health, functional, and economic costs and yet despite this, many individuals with SAD never seek mental health treatment and those that do, typically wait 15-20 years (Fehm et al., 2008; Fehm et al., 2005; Fehm et al., 2007; Stein & Stein, 2008). This may be due in part to the lack of awareness of the disorder or/and limited availability of appropriate services. It is also likely due to the nature of SAD itself, and that individuals with SAD are too embarrassed to seek help. The high completion rates of both studies attest to a high level of participant acceptability. Participant feedback indicated high levels of satisfaction with the programme. The low refusal rate found might be attributable to robust screening procedures utilized. In both studies, recruitment to the CBGT programme was not problematic; the vast majority of participants were self-referrals. The facility to self-referral via dedicated websites and the privacy it affords might possibly facilitate help-seeking behaviours. The location of the treatment centre away from traditional psychiatric day clinics also likely facilitated attendance or/and the availability of out of hours treatment. This is important as left untreated, SAD has the lowest natural remission rate when compared with other anxiety disorders (Bruce et al., 2005).

Given the prevalence and chronic course of SAD, many clinicians will have a few individuals with SAD on their active caseloads. The provision of efficient, empirically validated treatments in an accessible, yet cost-effective manner, is desirable for under-resourced healthcare systems. If the efficacy of CBGT can be established, then such approaches provide the potential to effectively manage long-waiting lists for services. The hours required per participant in both studies was 8.4 (42 hours, 2 facilitators and 10 participants). Individual CBT based on Clark and Wells' model is equivalent to 21 hours per service user. Therefore, the most obvious advantage of CBGT is the capacity to offer treatment to more individuals in a given time period. In this context, CBGT helps address the high level of service demand.

There are therapeutic pros and cons associated with both individual and group formats (e.g., Yalom & Leszcz, 2005). In addition, there are specific therapeutic advantages and disadvantages associated with CBGT and individual CBT. While individual CBT for SAD has proven to be an effective treatment, CBGT provides an opportunity to utilize unique group processes, and contrary to NICE guidelines, there may be a value in considering CBGT as a worthwhile option (Bjornsson et al., 2013).

Group participation provides a built-in social exposure format in which to take risks and break old patterns. In addition, it facilitates the replication of social situations for role-plays. Furthermore, accurate authentic feedback, and the encouragement and support by fellow group members can have a more potent impact than that coming from clinicians, and encouraging social comparisons may be made (Heimberg et al., 1995). Heimberg et al. (1993) argues that a group setting facilitates greater self-awareness as it provides the opportunity to observe cognitive distortions in others, which then enables the recognition of personal cognitive distortions, and group members can be used as co-therapists.

In both study samples, participants willingly commented on the benefits of group participation, in particular, the reduced sense of isolation and enhanced solidarity that group

membership offered. The recognition of similarities in others helped normalize the experiences of social anxiety. They also commented on the style of facilitation that worked best for them – firm but supportive. The use of humour was also highlighted as an ‘essential’ ingredient. It is possible that these factors may in fact facilitate attendance and the teaching of cognitive strategies and exposure exercises.

In both studies, levels of co-morbid depression and GAD reduced significantly post-intervention, despite not being specifically targeted. In the preliminary non-standardized study, higher baseline depression was found to be correlated with reduced effectiveness of the intervention, although such effects were generally small. However, the primary standardized study, employing mediational analysis, found depression had no significant moderating effect on any of the primary outcome measures. Given that, participants with mild to moderate depression responded well to CBGT for SAD and that depression did not negatively moderate outcomes, such applicants need not be excluded from CBGT participation. Depression might be viewed clinically as a consequence of SAD, which will remit when SAD is appropriately treated. However, the group experience may also directly impact on the social isolation, loneliness and the reduced sense of social connectedness associated with SAD. There is strong evidence that loneliness is associated with depression (Weeks et al., 1980). This is especially encouraging as the development of comorbid depression adds to the overall burden of those with SAD. The knowledge that work and social functioning improves is welcomed news for both the clinician and individuals with SAD.

9.1.2 Moderators. Individuals with SAD applying for treatment will likely be experiencing difficulties with anger. They are more likely to experience anger without incitement and show a greater propensity to become angry when criticized or perceived to be treated unfairly. Of particular importance is the strong propensity to monitor and *suppress*

the outward physical or verbal expressions of anger. Despite this, it is clinically useful to know that the typical anger profile of participants did not hinder therapeutic gains. However, individuals who tend to express anger in an outwardly undesirable and poorly controlled manner, may experience less reduction in their fear of negative evaluation following CBGT for SAD. There is a danger that openly expressed anger may increase the real or perceived threat of further negative evaluation, and therefore there is a tendency towards anger suppression. Moreover, there may be substance to this, as expressions of anger can elicit negative impressions in the recipient (van Kleef et al., 2004) who may then be unwilling to engage in further social interaction (Kopelman et al., 2006). This may then be perceived by the individual with SAD as a social rejection thus supporting a core belief that others are harshly judgemental. CBGT for SAD did result in some small but significant improvements in anger suppression and reactivity. It is possible that the focus on reducing behavioural and experiential avoidance, may account for these therapeutic gains or the experience of broad validation of grievance anger experienced in the group-based setting.

Despite the high levels of alexithymia among group participants, alexithymia did not hamper therapeutic gains. Levels of alexithymia (TAS-20: ≥ 61) improved (40% to 21%) and this is likely a consequent of significant improvements in participant's capacity to describe feelings. CBGT for SAD appears to improve aspects of alexithymia. This is clinically important as high levels of alexithymia are associated with severe symptomatology, high comorbidity and significant functional impairment (Bagby et al., 1994). It may be useful for clinicians to consider alexithymia as a type of involuntary safety behaviour, that seeks the avoidance of unwanted internal experiences or a propensity towards experiential avoidance (Franzoni et al., 2013; Taylor et al., 1997). Furthermore, if alexithymia is considered a state-dependent phenomenon it mirrors social anxiety and shame in having its aetiology in previous experiences of excessive, critical judgement. Specific

attention to teaching individuals with SAD the ability to identify and correctly label emotions similar to the work of Linehan (2015) in the DBT treatment of BPD should be considered.

Our findings support the argument that fear of positive evaluation is another important feature of SAD. Despite pre-treatment scores being significantly higher than published clinical norms, fear of positive evaluation did not impede therapeutic gains. However, against expectation, higher baseline fear of positive evaluation did strongly predict greater improvement in work and social functioning. Fear of positive evaluation demonstrated moderate but clinically significant improvements following intervention. It may be that higher levels of fear of positive evaluation play a particularly disruptive role in work and social functioning. This implies that clinicians should pay specific therapeutic attention to the cognitive distortion, discounting the positive.

9.1.3 Mediators. Baseline levels of internal shame were significantly higher than published community norms. More importantly, internal shame proved to be a significant mediator in all outcome measures, especially the inferiority aspect of internal shame. The experience of participation in CBGT for SAD alleviated a sense of inferiority (and a reduced sense of fragility and emptiness), which then leads to an improvement in social anxiety severity and work and social functioning (and to a smaller extent depression and GAD). Internal shame reflects core beliefs (or early maladaptive schemas) about the self as fundamentally flawed and in CBT theory are viewed as typically the most difficult to change. Lee et al. (2014) showed that internal shame negatively impacted on social anxiety through experiential avoidance. Alexithymia likely operates in a similar fashion. According to Yalom (1995) participant self-disclosure is the central process that drives all group therapeutic factors. From a behaviour perspective, the action urge associated with shame is to self-conceal. In contrast, acting opposite and engaging in disclosure is positively linked to

therapy outcome (Farber & Hall, 2002; Rizvi & Linehan, 2005). For individuals with SAD self-disclosure in a group setting is more challenging and yet may be more powerful than in an individual setting as it requires disclosure to an entire group. However, in a group setting it may facilitate the recognition of similarities in others, which in turn may facilitate the normalization of shame-based experiences. According to Yalom (1995) acceptance of the group members to that which is disclosed facilitates self-acceptance. Self-acceptance is incompatible with toxic internal shame. This implies that, while standard CBT interventions are important, there is a need to devote time to challenge experiential avoidance through self-disclosure focused on exploring shamed based histories. Specific time was devoted to this in the studies CBGT format (session 6).

As with the majority of measures used, baseline levels of safety behaviour were significantly higher than published clinical norms. Akin to internal shame, safety behaviour proved to be a significant mediator in all primary and secondary outcome measures. Moreover, inhibiting behaviours proved to have the most influential mediating role. In both studies, CBGT intervention was associated with significant reductions in safety behaviour use, and in the primary study the inhibiting behaviour subscale achieved the largest post-intervention reductions. As safety behaviours were specifically targeted this was a desired outcome. Given this finding, clinicians working with individuals with SAD might give greater attention to addressing the use of inhibiting behaviour, as the other two facets of safety behaviours (active impression management and managing physical symptoms) were less influential in mediating positive outcomes. Inhibiting behaviours can be understood as behaviours that seek to avoid social experiences that provoke intense distress, and consequently facilitates experiential avoidance.

9.2 Theoretical Implications

9.2.1 CBGT for SAD. The findings of both studies support the proposition that the Clark and Wells' (1995) individual CBT model of SAD can be successfully incorporated into group treatment settings and maintain robust outcomes. The replication of the findings of the preliminary study, despite the additional methodological rigour achieved by the inclusion of a randomized control group in the primary study, adds further strength to this proposition. Both studies also support research (e.g., Gaston et al., 2006; McEvoy, 2007) demonstrating that a treatment model that was originally found successful in well-controlled research conditions can be successfully replicated, and is effective in real-life clinical settings. Furthermore, these outcomes were achieved with a study sample that was represented by individuals who had *significant* symptom impairment, co-morbidity and functional impairment.

These results of the primary study lend weight to the findings of studies, which have reported that pre-treatment depression does not negatively influence anxiety symptom outcomes following CBT (e.g., Kampman et al., 2008; 2013; Schuurmans et al., 2009). The finding that levels of depression severity were improved in a CBGT intervention targeting SAD is consistent with the findings of Marom et al. (2009) who reported a reduction in depression levels following treatment for SAD. Collectively, these findings supports Moscovitch et al.'s (2005) contention that the amelioration of depression is primarily a result of improvement in social anxiety. Therefore, Chambless et al.'s (1997) recommendation of concurrent treatment of social phobia and depression for the more depressed clients may not be necessary.

9.2.2 Impact of moderators. All three selected moderators, trait anger, alexithymia and fear of positive evaluation, were significantly elevated at pre-intervention. It is

noteworthy that, with a few exceptions, none of these variables exerted a moderating impact on any of the of the primary or secondary outcome measures. Moreover, the finding that modest, but significant improvements were achieved, following CBGT for SAD, across each of these variables suggests that they should be subjected to evaluation as potential mediators. It is theoretically possible that some of the overall effectiveness noted was achieved due to changes in these variables.

In the primary study, higher pre-treatment levels of anger expressed outwardly was inclined to negatively moderate fear of negative evaluation outcomes. Theoretically, it seems plausible that both social anxiety and anger are provoked by perceived negative evaluation and thus perceived social rejection (Alden & Wallace, 1995; Leary et al., 1988; Leary et al., 2006). It is also possible that anger is either suppressed (experientially avoided) or expressed outwardly in an uncontrolled fashion. This is consistent with the work of Kachin et al. (2001) who identified two subsets of individuals with SAD: one that was characterized by unassertiveness and submissiveness (suppressed anger) and by hostility (expressed anger). Borkovec et al. (2002) also reported poorer responses in CBT for SAD for individuals who present with hostility. Versella, Piccirillo, Potter, Olino, and Heimberg, (2016) speculate that it is childhood emotional abuse that engenders greater experiences of anger among individuals with SAD, which in turn feed feelings of inferiority and shame.

While alexithymia has traditionally been viewed as a stable personality trait, the findings that aspects of alexithymia improved as a result of group participation lends support to Saarijärvi et al.'s (2006) argument that alexithymia reflects both a stable personality trait (primary alexithymia) *and* a state-dependent phenomenon (secondary alexithymia). Secondary alexithymia provoked by intense negative emotions (e.g., shame or anger) is regarded by Taylor et al. (1997) as a maladaptive emotional regulation strategy. Moreover, the diminished self-awareness and externally oriented thinking style associated with

alexithymia may reflect the *avoidance* of unwanted internal experiences, i.e., experiential avoidance. CBT theorists may want to consider alexithymia as a type of automatic safety behaviour and include it in their models of SAD. While not reaching statistical significance, baseline alexithymia did tend to inhibit gains on one of the social anxiety outcome measures. This finding should be viewed with caution as some research has reported that alexithymia has no negative impact on CBT outcomes (e.g., Rufer et al., 2006; Spek et al., 2008).

The finding that high levels of pre-intervention fear of positive evaluation had a statistically significant *positive* moderating influence on work and social functioning, and yet failed to have a moderating effect on any of the primary social anxiety outcome measures was unexpected, and therefore theoretically perplexing. It is possible that high levels of fear of positive evaluation may have a particularly strong negative impact on the capacity to function in a work and social context. Furthermore, consistent with the findings of Weeks et al. (2012), fear of positive evaluation improved significantly following CBGT for SAD. The robust correlations with all social anxiety measures, fear of negative evaluation and safety behaviours lends support to Gilbert's (2001) evolutionary theories of social anxiety and Weeks and Howell (2014) proposed 'bivalent fear of evaluation model' of SAD, which incorporated the fear of evaluation in general, both positive and negative. In both these models, fear of positive evaluation is defined as a mental safety behaviour against the additional social expectations that positive evaluation may bring. In this understanding, it acts like alexithymia in attempting to behaviourally and experientially avoid distressing experiences. The relationship between fear of positive evaluation and work and social functioning needs to be unravelled; this could be a fruitful topic for future research.

9.2.3 Impact of mediators. As hypothesised, the primary study found that both internal shame and safety behaviours had a robust significant mediating effect on all outcome

measures. Consistent with this finding, both internal shame and safety behaviours were significantly reduced as a consequence of group participation.

From a CBT perspective the finding that safety behaviours are reduced as a result of CBGT for SAD is not surprising as safety behaviours are a specific target for intervention. Clark and Wells' (1995) CBT model of SAD strongly upholds the premise that safety behaviours are responsible for developing and maintaining SAD and hinder therapeutic progress by impeding behavioural exposure interventions. Most RCT that have verified the helpful impact on SAD of reducing safety behaviours, have used safety behaviour as an outcome measure (e.g., McManus et al., 2008; Okajima et al., 2009). The one study that did evaluate safety behaviours as a mediator, reported that improvement in Clark and Wells' (1995) individual CBT was mediated through avoidance behaviour (Hedman et al., 2013). However, the same study reported avoidance behaviours did not mediate gains in Heimberg and Becker's (2002) CBGT model for SAD. The primary study that evaluated Clark and Wells (1995) informed CBGT found that safety behaviours did mediate social anxiety outcomes, again, reinforcing the proposition that the mediating qualities of Clark and Wells' (1995) individual CBT model of SAD can be successfully maintained in a group treatment setting. The additional insight that our primary study adds is the relative mediating roles of sub-categories of safety behaviours. Our findings also make theoretical sense. Inhibiting behaviours, in contrast to active impression management and managing physical symptoms, is associated with greater behavioural avoidance, which may be driven by heightened experiential avoidance (Craske et al., 2008; Kashdan et al., 2006). In Clark and Wells' (1995) model of SAD the distressing experience that individuals seek to immediately avoid is situational embarrassment (or external shame). However, safety behaviours, especially avoidant safety behaviours, may also be employed to offset the potential for the same social experiences that provoke a sense of internal shame. Moscovitch et al. (2013) maintain that self-concealment strategies, like avoidance behaviours, function to hide an individual's

fundamental flaws from public exposure. In the primary study, safety behaviours, especially inhibiting behaviours, were strongly correlated with internal shame.

Again, from a CBT perspective the finding that internal shame is reduced as a result of CBGT for SAD is remarkable. Dr. Aron Beck highlighted three levels of thought, (automatic thoughts, assumptions and core beliefs) in his version of CBT (Beck, Emery, & Greenberg, 2005). Clark (2001) in keeping with the basic architecture of Beckian CBT, describes three levels of categories of assumption the deepest one being unconditional negative beliefs about the self, that can be activated in feared social situations. These beliefs about the self are shame based – e.g., “*I am inferior and damaged*”. Unconditional negative beliefs about the self are viewed as deep rooted, largely unrecognized and are very difficult to alter (Beck et al., 2005). Schema Therapy (ST) was developed in order to address the needs of those for whom standard CBT was ineffective (Young, Klosko, & Weishaar, 2007). Pinto-Gouveia, Castilho, Galhardo, & Cunha, (2006) employing the Youngs Schema Questionnaire (YSQ: Young, 1999) reported that individuals with SAD scored high on the following schemas: mistrust/abuse, social undesirability/defectiveness, and unrelenting standards /shame. They recommended schema-focused therapy for SAD for individuals who did not improve with standard CBT. To our knowledge, there has been no published studies evaluating the effectiveness of schema therapy for SAD.

That the experience of participation in CBGT for SAD can alleviate a sense of inferiority (along with a reduced sense of fragility and emptiness) without specific, schema-focused interventions is noteworthy. Direct work on automatic thoughts (via identification and challenging) and underlying assumptions (via behavioural experiments) can have a loosening effect on underlying core beliefs (Beck et al., 2005). Moreover, given the insidious influence that shame-based schemas, can have on assumptions and surface automatic thoughts, the finding that reductions in internal shame mediated reduction in SAD is logical

from a CBT theoretical standpoint. Furthermore, given that the inferiority aspect of internal shame contributed the strongest mediating influence outcome is theoretically consistent with the APA (1994) definition of SAD.

Our finding that CGBT for SAD does ameliorate internal shame and in particular a sense of inferiority is noteworthy. According to Gilbert (2014) humans have innate needs to be seen as socially attractive to others in order to feel connected and safe within their social grouping. However, our understanding of what is socially attractive is typically derived from other people's communications (Gilbert, 1992). Gilbert (2010) also asserts that humans evolved to be regulated through social relationships and therefore require a sense of connection. According to Gilbert (1992) the function of shame is that of a warning signal that one is a risk of being excluded and disconnected from others. In this fashion, shame is linked to negative social comparisons and is triggered by social situations where one feels unattractive, inferior, or inadequate (Gilbert, 1992). Gilbert (2010a) posits that shame is the most important inner experience for creating the sense of difference and disconnection from others. He considers shame to acts as a defensive function and is associated with the triggering of involuntary submissive behavior to protect one's status within the social hierarchy. In this context, it seems plausible that the group experience itself played an important role in this finding. The perceived similarities between CBGT members may help to facilitate group cohesion (Hogg, 1993; Roark & Sarah, 1989). Participant self-disclosure is related to group cohesion (Tschuschke & Dies, 1997). According to Yalom (1995) cohesion is the *connectedness* of group members to one another. This may have addressed the participants innate needs to feel connected and safe within at least one social grouping (Gilbert, 2014). Feeling relatively safe and connected to others by virtue of belonging to an in-group may have facilitated self-disclosure. The ability to self-disclose around content that is shame based is to behave in opposition to the natural action urge of shame which is to hide, suppress and avoid. Linehan (1993) also emphasises the usefulness of opposite action

in emotional regulation skills; i.e., to behave in opposition to the natural action urge of an emotion and reported that self-disclosure resulted in shame reduction (Rizvi & Linehan, 2005). In addition, it is posited that self-disclosure in a group setting is more therapeutically influential than in an individual setting. One disclosing to a large number of individuals, many of whom can easily identify with the content is qualitatively different from disclosing to a single clinician. According to Yalom (1995) acceptance of the group members to personal material that is disclosed facilitates self-acceptance. Self-acceptance is the opposite of self-rejection, the core response of internal shame. In a similar vein, Gilbert's (2010) focused on self-compassion as the antidote to self-criticism and self-rejection and the path to self-acceptance.

9.3 Limitations

As with all research studies, certain limitations should be acknowledged.

1. The follow up period of the preliminary study was un-monitored. It is impossible to say if participants engaged in alternative treatments during this period that may have influenced results. Moreover, while the findings suggest that treatment gains were maintained for a period of 12-months, the data is based on approximately one third of the original treatment group. Therefore, such a sample may be biased in terms of their current functioning. Although the response rate is in keeping with rates reported elsewhere in the literature, the findings may not generalise to the wider SAD population. Finally, the primary study did not collect any follow-up data and therefore it is difficult to gauge if improvements were maintained.

2. The lack of a control group in the preliminary study undermined causal inference regarding treatment effectiveness. This limitation was addressed in the primary study

through the provision of a randomized control group. Moreover, the screening process was strengthened by the development of a structured clinical interview, which incorporated elements of the Anxiety Disorder Interview Schedule for DSM-IV (ADIS: Brown, Barlow, & DiNardo, 1994), the Structured Clinical Interview for DSM-IV Axis I (SCID-1; 1997) and the Structured Clinical Interview for DSM-IV Personality Disorders (SCID-11: First, 1997). However, there remains additional limitations associated with the primary group, which will be addressed below.

3. Another limitation of both studies is the dependence on self-report. All data across both studies was obtained using self-reported measures and such measures may be subject to biased responding (Sato & Kawahara, 2011). However, the use of self-report measures is customary in routine clinical practice, and the capacity to compliment these with standardized behavioural observation methods is daunting in such a setting. However, the use of numerous unmodified self-report measures may be considered a strength. Validity is enhanced by the use of multiple tests of symptom changes during therapy.

4. The failure to stringently monitor for any alterations to participant's medication regimes or the concurrent use of alternative therapeutic interventions can be considered a limitation and may have influenced outcomes. The fact that majority of participants in the preliminary and all participant in the primary were self-referred would have made any independent monitoring difficult.

5. While SAI encourage self-referral as it allows participant to bypass the usual difficult referral pathways to standard mental health facilities, it may also result in a less avoidant and more motivated subset. This may be considered a limitation. However, the pre-treatment profile of the both studies was indicative of a sample with significantly high levels of social anxiety symptoms severity and significant co-morbidity.

6. The reasons for dropping out of the CBGT programme were not systematically recorded in the preliminary study. Attempts to address this in the primary study proved problematic; many dropouts failed to respond to all efforts to contact them and to persist would have been unethical. Ideally, future research should successfully collect data on dropouts to inform service delivery.

7. The primary study proved adequately powered to detect effectiveness and mediation effects. However, moderator effects were not detected which implies that moderator effects, if they existed, were very modest. A larger sample size may have had sufficient power to detect them.

8. Another limitation of the primary study was the incapacity to test for temporal precedence. The primary study included only two time points and therefore we were unable to test whether change in the mediator variables preceded change in the outcome measures. The addition of multiple assessment points permitting a multilevel mediational analysis would have strengthened confidence in the findings.

9. While all participants had a primary diagnosis of SAD, certain secondary diagnoses were excluded. This was deemed necessary for the efficient functioning of the group. However, it also limited generalizability. Moreover, the majority of the sample were Irish which also limits generalizability to other racial/ethnic groups.

10. To have one clinician as the primary facilitator for all the groups across both studies may also be deemed a limitation. While a single facilitator might be judged to enhance internal validity, it also makes it difficult to disentangle the effects of the group from the effects of the facilitator. The primary facilitator also being the primary researcher may have added a degree of bias. Independent replication of the study using multiple facilitators is therefore recommended.

11. A final and important limitation is that neither of the studies had independent measures of treatment fidelity.

Despite the practical limitations inherent in clinical practice research, such research conducted in naturalistic clinical settings provides useful guidance in bridging the often-wide gap between efficacy research and the effectiveness of interventions in clinical services. While efficacy research provides excellent internal validity in relation to an intervention, the need for external validity to establish generalizability and effectiveness is of equal importance.

9.4 Future directions

The need to continue to identify variables that hinder therapeutic progress remains an ongoing demand in psychological research. Despite both studies achieving robust statistically significant effect sizes a significant proportion of participants failed to achieve CSC (48-67%). Other studies have reported similar findings (McEvoy, 2007; Mörtberg et al., 2007; Stangier et al., 2003). While the evaluation of CSC provides more relevant information for clinicians and health care providers, it is not without its limitations. Is it realistic to expect any form of psychological intervention to be capable of achieving 100% CSC? If not, what might be a desirable or even acceptable level of CSC? Jacobson et al. (2000) is in little doubt that recovery rates, based on reliable change indexes (on which the CSC is based) represent an extremely conservative outcome measure. Moreover, should we evaluate psychological interventions solely on the extent to which they reduce symptoms? Kazdin (2001) questioned both the emphasis on symptom reduction in determining CSC and whether CSC reflects an honest differences in the everyday lives of people (Kazdin, 1999). Kazdin (1999) suggests that a more meaningful evaluation of progress following psychological intervention would be to assess for improvements in

quality of life, daily functioning, or the impact on others. Moreover, Vittengl, Clark, and Jarrett (2009) reported that a significant number of individuals with depression did not return to pre-morbid levels of functioning even when they achieved full remission of symptoms. While, Dunn et al., (2012) found that reduction in depressive symptom severity occurred earlier than psychosocial functioning. The primary study did look at work and social functioning, but future research should routinely include measures of adjustment and healthy functioning and extended time lines for gathering data.

A shift away from symptom reduction towards a wellness focus might also inform future research activities. Therefore, research studies that evaluate the effectiveness of psychological intervention might use the gratitude questionnaire, to evaluate the acquisition of a grateful disposition, as this is associated with well-being and prosocial behaviours (McCullough, Emmons, & Tsang, 2002). Or they might focus on the acquisition of psychological resilience or the many factors that constitute this psychological quality, e.g., self-belief, optimism, purposeful direction, adaptability, ingenuity or seeking emotional support. There are many resilience questionnaires available, e.g., Resilient Systems Scales (Maltby, Day, Flowe, Vostanis, & Chivers, 2019) the Brief Resilience Scale (Smith et al., 2016) or the Connor Davidson Resilience Scale (Connor & Davidson, 2012). Or they might focus on the development of self-compassion. Gilbert's (2003) psycho-evolutionary model of SAD, focuses on shame as a conditional emotional response logged in autobiographical memory, and argues for the development of self-compassion (self-acceptance and forgiveness) as the antidote to negative self-judgement. Emerging self-compassion could be assessed using the self-compassion questionnaire (Neff, 2003, 2016). This questionnaire evaluates six different components of self-compassion: self-kindness, self-judgement, common humanity, isolation, mindfulness and over-identification. Effective CBGT for SAD should be capable of improving self-kindness, common humanity and mindfulness.

Independent reproduction of the primary study might also be considered with attention to the limitations noted in section 9.3. Multiple group facilitators should be used with the research element independently managed. The mediator and moderator measures used, while deliberately and carefully chosen, did not tap directly into experimental avoidance. The addition of a robust measure like the Multidimensional Experiential Avoidance Questionnaire (MEAQ; Gámez, Chmielewski, Kotov, Ruggero, & Watson, 2011) to facilitate the evaluation of experiential avoidance as a mediator and the underlying role it may play in shame, anger and alexithymia. In addition, the MEAQ would allow a more nuanced evaluation of what aspects of experimental avoidance are more influential: behavioural avoidance, distress aversion, procrastination, distraction and suppression, repression and denial or distress endurance. All of the first five factors would be expected to negatively influence therapeutic gain while distress endurance ideally should improve.

CBT for SAD have been extensively evaluated and numerous meta-analyses attest to its effectiveness (e.g., Acarturk et al., 2009; Canton et al., 2012; Chambless & Hope, 1996; Fedoroff & Taylor, 2001; Feske & Chambless, 1995; Gould et al., 1997; Mayo-Wilson et al., 2014; Powers, Sigmarsson, & Emmelkamp, 2008; Rodebaugh et al., 2004; Taylor, 1996; Wersebe et al., 2013). Other therapeutic models might also be effective in the treatment of SAD, e.g., Acceptance and Commitment Therapy (Hayes et al., 2016). Preliminary comparisons of the effectiveness of individual ACT to individual CBT have demonstrated them to be equally effective (Craske et al., 2014; Herbert et al., 2018). Such studies could be replicated using CBGT for SAD vs a group-based ACT format. Furthermore, some of the core ACT interventions, e.g., cognitive diffusion and practicing willingness, could be incorporated into traditional CBT approaches and evaluated against traditional CBT.

Gilbert's (2010) Compassion Focused Therapy (CFT) seems ideally suited to challenge the problematic patterns of cognitions associated with social anxiety and

especially inner shame. Gilbert (2010) identified three emotional regulation systems: drive, soothing and threat. CBT for SAD tends to focus on the threat system and employs cognitive and behavioural strategies to challenge unhelpful cognitions related to the social world. Gilbert's (2010) fundamental therapeutic technique of CFT is compassionate mind training, designed to disengage from the threat system and engage with soothing system. In Gilbert's (2010) theoretical model, the soothing system once engaged will activate the drive system and the motivation to work towards valued goals. Leaviss and Uttley (2015) conducted a systematic review of CFT based intervention studies (n = 12) and concluded that CFT showed promise as an intervention for mood disorders, particularly those high in shame. Future research should evaluate the effectiveness of CFT for SAD in both an individual and group setting. Comparisons could also be made to Clark and Wells (1995) individual CBT for SAD.

Finally, exploratory analysis using qualitative research methodology (e.g., interpretative phenomenological analysis) of individuals experience of CBGT for SAD might provide insight into the unique aspects of the group experience that participants found helpful in reducing internal shame. The themes identified could then inform further quantitative research.

9.5 Conclusion

This dissertation had a number of objectives. The first objective was to evaluate the effectiveness of an Irish community-based CBGT intervention, based on Clark and Wells' (1995) model, in reducing symptoms and problem areas associated with SAD. This objective was driven by the the aims of IAPT, and the search for cost-effective interventions to facilitate the management of long-waiting lists for services. Previous meta-analyses (e.g., Canton at al. 2012; Mayo-Wilson et al., 2014; Wersebe et al., 2013) had attested to the

effectiveness of CBT for SAD. However, there is much debate in the literature with respect to the relative effectiveness and cost of individual CBG and CBGT for SAD. No other published study on the effectiveness of individual CBT has produced effect sizes equivalent to the magnitude of Clark et al. (2003; 2006). While these findings have proved difficult to replicate in other settings (e.g., Mörtberg et al., 2007; Stangier et al., 2003). The Clark and Wells (1995) model was developed with an individual format in mind. There were some studies that suggested that the Clark and Wells' (1995) individual CBT model for SAD could be replicated in a group setting (e.g., McEvoy, 2007).

The second objective had two elements. The first element was to evaluate the potential moderating influence of trait anger, alexithymia and fear of positive evaluation on the therapeutic progress made by participants in a Clark And Wells' (1995) based CBGT for SAD programme. The second element was to explore the potential mediating role of safety behaviours and internal shame in terms of social anxiety outcome measures in the same programme. Based on theoretical consideration and clinical experience, it was predicted that the identified moderators would impede therapeutic progress, while the identified mediators would be responsible, to some degree, for therapeutic progress.

The first part of this process was to evaluate data ($n = 252$) that had been collected over an eleven-year period. Psychological measures were administered at three time points, pre-intervention (t_1), post-intervention (Time 2) and 12-month post-intervention (t_3). The preliminary study findings were very promising, with significant effect sizes associated with the changes from pre to post-intervention and maintained at 12 months follow up. Moreover, co-morbid depression significantly improved, and the dropout rate was minimal suggesting the CBGT format was acceptable to most participants. However, while rates of clinically significant change achieved in this preliminary study compared favourably with previous literature (e.g., McEvoy, 2007; Mörtberg et al., 2007; Stangier et al., 2003) they still only

range from 33-54% across a range of measures at twelve month follow up. This means that 46-67% did not attain clinically significant change from their participation.

The second part of the process was to design a more methodological rigorous second study to examine if the findings of the preliminary study, could be replicated. Randomization was introduced, and a more robust screening interview was designed. The results of the primary study supported the results of the preliminary study. Therefore, the findings of both studies support the proposition that the Clark and Wells (1995) individual CBT model of SAD can be successfully incorporated into group treatment settings and maintain robust outcomes. However, the optimal model of CBGT for SAD remains to be determined.

While all three moderator variables were significantly elevated at pre-intervention, the primary study failed to find, with a few exceptions, any moderating impact on any of the of the primary or secondary outcome measures. The finding that modest, but significant improvements were achieved, following CBGT for SAD, across each of these moderator variables suggests that they should be subjected to evaluation as potential mediators. In contrast, as predicted, the primary study found that both mediators, internal shame and safety behaviours, had a vigorous significant mediating effect on all outcome measures. Consistent with this finding, both internal shame and safety behaviours were significantly reduced as a consequence of group participation.

The need to continue to identify variables that both hinder and facilitate therapeutic progress should remain an ongoing mandate in psychological research. While symptom reduction is desirable, a shift towards a wellness focused might also inform future research activities. Furthermore, while this dissertation has confirmed that the Clark and Wells (1995) individual CBT model of SAD can be successfully incorporated into group treatment settings and maintain robust outcomes, the evaluation and availability of other treatment models, including ACT, schema-focused therapy, CFT, SSPP and internet CBT self-help

programmes, should be considered. Despite the proven effectiveness of any particular approach, the rationale and meaning behind the approach may simply not achieve buy-in by certain individuals. The provision of alternative approaches can provide greater opportunity for a good fit between intervention and participant.

SAD is a common lifelong disorder associated with significant comorbidity and serious social, occupational and educational impairments. Despite the degree of distress and impairment, many individuals with SAD never seek appropriate treatment. Therefore, the need for better public awareness, reduced stigma and early intervention is paramount.

References

- Abramowitz, J. S., Moore, E. L., Braddock, A. E., & Harrington, D. L. (2009). Self-help cognitive-behavioral therapy with minimal therapist contact for social phobia: A controlled trial. *Journal of Behavior Therapy and Experimental Psychiatry*, *40*(1), 98–105. <https://doi.org/10.1016/j.jbtep.2008.04.004>
- Acarturk, C., Smit, F., de Graaf, R., van Straten, A., ten Have, M., & Cuijpers, P. (2009). Economic costs of social phobia: A population-based study. *Journal of Affective Disorders*, *115*(3), 421–429. <https://doi.org/10.1016/j.jad.2008.10.008>
- Aderka, I. M., Hofmann, S. G., Nickerson, A., Hermesh, H., Gilboa-Schechtman, E., & Marom, S. (2012). Functional impairment in social anxiety disorder. *Journal of Anxiety Disorders*, *26*(3), 393–400. <https://doi.org/10.1016/j.janxdis.2012.01.003>
- Agras, W. S. (1971). Relaxation in Systematic Desensitization. *Archives of General Psychiatry*, *25*(6), 511. <https://doi.org/10.1001/archpsyc.1971.01750180031005>
- Alden, L. E., & Bieling, P. (1998). Interpersonal consequences of the pursuit of safety. *Behaviour Research and Therapy*, *36*(1), 53–64. [https://doi.org/10.1016/S0005-7967\(97\)00072-7](https://doi.org/10.1016/S0005-7967(97)00072-7)
- Alden, L. E., & Wallace, S. T. (1995). Social phobia and social appraisal in successful and unsuccessful social interactions. *Behaviour Research and Therapy*, *33*(5), 497–505. [https://doi.org/10.1016/0005-7967\(94\)00088-2](https://doi.org/10.1016/0005-7967(94)00088-2)
- Alonso, J., Angermeyer, M. C., Bernert, S., Bruffaerts, R., Brugha, T. S., Bryson, H., ... Vollebergh, W. a. M. (2004). Disability and quality of life impact of mental disorders in Europe: Results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project. *Acta Psychiatrica Scandinavica*, *109*(Suppl420), 38–46. <https://doi.org/10.1111/j.1600-0047.2004.00329.x>
- American Psychiatric Association (Ed.). (1987). *Diagnostic and statistical manual of mental disorders: DSM-III-R* (3rd ed., rev). Washington, DC: American Psychiatric Association.
- American Psychiatric Association (Ed.). (1994). *Diagnostic criteria from DSM-IV*. Washington, D.C: The Association.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (Fifth Edition). <https://doi.org/10.1176/appi.books.9780890425596>
- Andrews, B., Qian, M., & Valentine, J. D. (2002). Predicting depressive symptoms with a new measure of shame: The Experience of Shame Scale. *British Journal of Clinical Psychology*, *41*(1), 29–42. <https://doi.org/10.1348/014466502163778>

- Andrews, G., Davies, M., & Titov, N. (2011). Effectiveness randomized controlled trial of face to face versus Internet cognitive behaviour therapy for social phobia. *Australian and New Zealand Journal of Psychiatry*, 45(4), 337–340. <https://doi.org/10.3109/00048674.2010.538840>
- Angélico, A. P., Crippa, J. A. S., & Loureiro, S. R. (2010). Social anxiety disorder and social skills: A critical review of the literature. *International Journal of Behavioral Consultation and Therapy*, 6(2), 95–110. <https://doi.org/10.1037/h0100904>
- Antony, M. M., Rowa, K., Liss, A., Swallow, S. R., & Swinson, R. P. (2005). Social comparison processes in social phobia. *Behavior Therapy*, 36(1), 65–75. [https://doi.org/10.1016/S0005-7894\(05\)80055-3](https://doi.org/10.1016/S0005-7894(05)80055-3)
- Beck, A. T., Emery, G., & Greenberg, R. L. (2005). *Anxiety disorders and phobias: A cognitive perspective*. New York, NY, US: Basic Books.
- Arditte, K. A., Morabito, D. M., Shaw, A. M., & Timpano, K. R. (2016). Interpersonal risk for suicide in social anxiety: The roles of shame and depression. *Psychiatry Research*, 239, 139–144. <https://doi.org/10.1016/j.psychres.2016.03.017>
- Aron, E. (2016). *The highly sensitive person: how to thrive when the world overwhelms you*.
- Aronson, E., Wilson, T. D., & Akert, R. M. (2016). *Social psychology* (Ninth Edition). Boston: Pearson.
- Asher, M., Asnaani, A., & Aderka, I. M. (2017). Gender differences in social anxiety disorder: A review. *Clinical Psychology Review*, 56, 1–12. <https://doi.org/10.1016/j.cpr.2017.05.004>
- Averill, J. R. (1983). Studies on anger and aggression: Implications for theories of emotion. *American Psychologist*, 38(11), 1145–1160. <https://doi.org/10.1037/0003-066X.38.11.1145>
- Bagby, R. M., Parker, J. D. A., & Taylor, G. J. (1994). The twenty-item Toronto Alexithymia Scale: I Item selection and cross-validation of the factor structure. *Journal of Psychosomatic Research*, 38(1), 23–32. [https://doi.org/10.1016/0022-3999\(94\)90005-1](https://doi.org/10.1016/0022-3999(94)90005-1)
- Bagby, R. M., Taylor, G. J., & Parker, J. D. A. (1994). The twenty-item Toronto Alexithymia scale—II. Convergent, discriminant, and concurrent validity. *Journal of Psychosomatic Research*, 38(1), 33–40. [https://doi.org/10.1016/0022-3999\(94\)90006-X](https://doi.org/10.1016/0022-3999(94)90006-X)

- Bandelow, B., Charimo Torrente, A., Wedekind, D., Broocks, A., Hajak, G., & Rather, E. (2004). Early traumatic life events, parental rearing styles, family history of mental disorders, and birth risk factors in patients with social anxiety disorder. *European Archives of Psychiatry and Clinical Neuroscience*, 254(6), 397–405. <https://doi.org/10.1007/s00406-004-0521-2>
- Bandelow, B., & Wedekind, D. (2014). [Social phobia]. *Der Nervenarzt*, 85(5), 635–644; quiz 645–647. <https://doi.org/10.1007/s00115-013-3955-9>
- Bandura, A. (1977). *Social learning theory*. Upper Saddle River: Prentice-Hall.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122–147. <https://doi.org/10.1037/0003-066X.37.2.122>
- Battacchi, M. W., Codispoti, O., & Marano, G. F. (1994). Shame and guilt: Toward a phenomenological and operational definition. In B.de Raad, W. K. B. Hofstee, & G. L. van Heck (Eds.), *Personality Psychology in Europe*, vol. 5 (pp. 41–50). Tilburg: Tilburg University Press
- Baumeister, R. F., & Leary, M. R. (1995). *The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation*. 33.
- Beck, A. T., Emery, G., & Greenberg, R. L. (2005). *Anxiety disorders and phobias: A cognitive perspective*. New York, NY, US: Basic Books.
- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, 56(6), 893–897. <https://doi.org/10.1037/0022-006X.56.6.893>
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *BDI-II, Beck depression inventory: manual* (2nd ed). San Antonio, Tex. : Boston: Psychological Corp. ; Harcourt Brace.
- Beesdo, K., Bittner, A., Pine, D. S., Stein, M. B., Höfler, M., Lieb, R., & Wittchen, H.-U. (2007). Incidence of social anxiety disorder and the consistent risk for secondary depression in the first three decades of life. *Archives of General Psychiatry*, 64(8), 903–912. <https://doi.org/10.1001/archpsyc.64.8.903>
- Beidel, D. C., Alfano, C. A., Kofler, M. J., Rao, P. A., Scharfstein, L., & Wong Sarver, N. (2014). The impact of social skills training for social anxiety disorder: A randomized controlled trial. *Journal of Anxiety Disorders*, 28(8), 908–918. <https://doi.org/10.1016/j.janxdis.2014.09.016>
- Beidel, D. C., & Turner, S. M. (2007). *Shy children, phobic adults: nature and treatment of social anxiety disorder* (2nd ed). Washington, DC: American Psychological Association.

- Biederman, J., Rosenbaum, J. F., Hirshfeld, D. R., Faraone, S. V., Bolduc, E. A., Gersten, M., ... Reznick, J. S. (1990). Psychiatric correlates of behavioral inhibition in young children of parents with and without psychiatric disorders. *Archives of General Psychiatry*, *47*(1), 21–26.
- Bjornsson, A. S., Bidwell, L. C., Brosse, A. L., Carey, G., Hauser, M., Mackiewicz Seghete, K. L., ... Craighead, W. E. (2013). ‘Cognitive–behavioral group therapy versus group psychotherapy for social anxiety disorder among college students: A randomized controlled trial’: Erratum. *Depression and Anxiety*, *30*(11), 1145–1146. <https://doi.org/10.1002/da.22180>
- Blakey, S. M., & Abramowitz, J. S. (2016). The effects of safety behaviors during exposure therapy for anxiety: Critical analysis from an inhibitory learning perspective. *Clinical Psychology Review*, *49*, 1–15. <https://doi.org/10.1016/j.cpr.2016.07.002>
- Blanco, C., Heimberg, R. G., Schneier, F. R., Fresco, D. M., Chen, H., Turk, C. L., ... Liebowitz, M. R. (2010). A Placebo-Controlled Trial of Phenelzine, Cognitive Behavioral Group Therapy, and Their Combination for Social Anxiety Disorder. *Archives of General Psychiatry*, *67*(3), 286–295. <https://doi.org/10.1001/archgenpsychiatry.2010.11>
- Boehme, S., Miltner, W. H. R., & Straube, T. (2015). Neural correlates of self-focused attention in social anxiety. *Social Cognitive and Affective Neuroscience*, *10*(6), 856–862. <https://doi.org/10.1093/scan/nsu128>
- Bögels, S. M., Alden, L., Beidel, D. C., Clark, L. A., Pine, D. S., Stein, M. B., & Voncken, M. (2010). Social anxiety disorder: Questions and answers for the DSM-V. *Depression and Anxiety*, *27*(2), 168–189. <https://doi.org/10.1002/da.20670>
- Bögels, S. M., Rijsemus, W., & De Jong, P. J. (2002). Self-focused attention and social anxiety: The effects of experimentally heightened self-awareness on fear, blushing, cognitions, and social skills. *Cognitive Therapy and Research*, *26*(4), 461–472. <https://doi.org/10.1023/A:1016275700203>
- Borkovec, T. D., Newman, M. G., Pincus, A. L., & Lytle, R. (2002). A component analysis of cognitive-behavioral therapy for generalized anxiety disorder and the role of interpersonal problems. *Journal of Consulting and Clinical Psychology*, *70*(2), 288–298. <https://doi.org/10.1037/0022-006X.70.2.288>
- Borrell-Carrió, F., Suchman, A. L., & Epstein, R. M. (2004). The Biopsychosocial Model 25 Years Later: Principles, Practice, and Scientific Inquiry. *Annals of Family Medicine*, *2*(6), 576–582. <https://doi.org/10.1370/afm.245>

- Bourdon, K. H., Boyd, J. H., Rae, D. S., Burns, B. J., Thompson, J. W., & Locke, B. Z. (1988). Gender differences in phobias: Results of the ECA community survey. *Journal of Anxiety Disorders, 2*(3), 227–241. [https://doi.org/10.1016/0887-6185\(88\)90004-7](https://doi.org/10.1016/0887-6185(88)90004-7)
- Bray, G. A. (1998). *Contemporary diagnosis and management of obesity*. Newtown, PA: Handbooks in Health Care.
- Breen, W. E., & Kashdan, T. B. (2011). Anger suppression after imagined rejection among individuals with social anxiety. *Journal of Anxiety Disorders, 25*(7), 879–887. <https://doi.org/10.1016/j.janxdis.2011.04.009>
- Brown, E. J., Turovsky, J., Heimberg, R. G., Juster, H. R., Brown, T. A., & Barlow, D. H. (1997). Validation of the Social Interaction Anxiety Scale and the Social Phobia Scale across the anxiety disorders. *Psychological Assessment, 9*(1), 21–27. <https://doi.org/10.1037/1040-3590.9.1.21>
- Brown, T. A., Barlow, D. H., & DiNardo, P. A. (1994). *Anxiety disorders interview schedule for DSM-IV: client interview schedule*. Oxford: Oxford University Press.
- Bruce, L. C., Heimberg, R. G., Blanco, C., Schneier, F. R., & Liebowitz, M. R. (2012). Childhood maltreatment and social anxiety disorder: implications for symptom severity and response to pharmacotherapy: Childhood Maltreatment in SAD. *Depression and Anxiety, 29*(2), 132–139. <https://doi.org/10.1002/da.20909>
- Bruce, S. E., Yonkers, K. A., Otto, M. W., Eisen, J. L., Weisberg, R. B., Pagano, M., ... Keller, M. B. (2005). Influence of Psychiatric Comorbidity on Recovery and Recurrence in Generalized Anxiety Disorder, Social Phobia, and Panic Disorder: A 12-Year Prospective Study. *American Journal of Psychiatry, 162*(6), 1179–1187. <https://doi.org/10.1176/appi.ajp.162.6.1179>
- Budman, S. H., Soldz, S., Demby, A., Davis, M., & Merry, J. (1993). What is cohesiveness? An empirical examination. *Small Group Research, 24*(2), 199–216. <https://doi.org/10.1177/1046496493242003>
- Burgoon, J. K., & Jones, S. B. (1976). Toward a theory of personal space expectations and their violations. *Human Communication Research, 2*(2), 131–146. <https://doi.org/10.1111/j.1468-2958.1976.tb00706.x>
- Buss, A. H., & Perry, M. (1992). The Aggression Questionnaire. *Journal of Personality and Social Psychology, 63*(3), 452–459. <https://doi.org/10.1037/0022-3514.63.3.452>

- Butler, G. (1985). Exposure as a treatment for social phobia: Some instructive difficulties. *Behaviour Research and Therapy*, 23(6), 651–657. [https://doi.org/10.1016/0005-7967\(85\)90060-9](https://doi.org/10.1016/0005-7967(85)90060-9)
- Butler, G. (1989). Issues in the application of cognitive and behavioral strategies to the treatment of social phobia. *Clinical Psychology Review*, 9(1), 91–106. [https://doi.org/10.1016/0272-7358\(89\)90049-4](https://doi.org/10.1016/0272-7358(89)90049-4)
- Cairney, J., McCabe, L., Veldhuizen, S., Corna, L. M., Streiner, D., & Herrmann, N. (2007). Epidemiology of social phobia in later life. *The American Journal of Geriatric Psychiatry*, 15(3), 224–233. <https://doi.org/10.1097/01.JGP.0000235702.77245.46>
- Canton, J., Scott, K. M., & Glue, P. (2012). Optimal treatment of social phobia: Systematic review and meta-analysis. *Neuropsychiatric Disease and Treatment*, 8, (2013-08991-001).
- Carleton, R. N., Collimore, K. C., & Asmundson, G. J. G. (2007). Social anxiety and fear of negative evaluation: Construct validity of the BFNE-II. *Journal of Anxiety Disorders*, 21(1), 131–141. <https://doi.org/10.1016/j.janxdis.2006.03.010>
- Carleton, R. N., Collimore, K. C., McCabe, R. E., & Antony, M. M. (2011). Addressing revisions to the Brief Fear of Negative Evaluation scale: Measuring fear of negative evaluation across anxiety and mood disorders. *Journal of Anxiety Disorders*, 25(6), 822–828. <https://doi.org/10.1016/j.janxdis.2011.04.002>
- Carleton, R. N., McCreary, D. R., Norton, P. J., & Asmundson, G. J. G. (2006). Brief Fear of Negative Evaluation Scale-Revised. *PsycTESTS*. <https://doi.org/10.1037/t12831-000>
- Carvalho, S., Dinis, A., Pinto-Gouveia, J., & Estanqueiro, C. (2015). Memories of shame experiences with others and depression symptoms: The mediating role of experiential avoidance. *Clinical Psychology & Psychotherapy*, 22(1), 32–44. <https://doi.org/10.1002/cpp.1862>
- Catalino, L. I., Furr, R. M., & Bellis, F. A. (2012). A multilevel analysis of the self-presentation theory of social anxiety: Contextualized, dispositional, and interactive perspectives. *Journal of Research in Personality*, 46(4), 361–373. <https://doi.org/10.1016/j.jrp.2012.02.006>
- Chambless, D. L., Beck, A. T., Gracely, E. J., & Grisham, J. R. (2000). Relationship of cognitions to fear of somatic symptoms: A test of the cognitive theory of panic. *Depression and Anxiety*, 11(1), 1–9. [https://doi.org/10.1002/\(SICI\)1520-6394\(2000\)11:1<1::AID-DA1>3.0.CO;2-X](https://doi.org/10.1002/(SICI)1520-6394(2000)11:1<1::AID-DA1>3.0.CO;2-X)

- Chambless, D. L., & Hope, D. A. (1996). Cognitive approaches to the psychopathology and treatment of social phobia. In P. M. Salkovskis & P. M. Salkovskis (Ed) (Eds.), *Frontiers of cognitive therapy*. (pp. 345–382). New York, Guilford.
- Chambless, D. L., Tran, G. Q., & Glass, C. R. (1997a). Predictors of response to cognitive-behavioral group therapy for social phobia. *Journal of Anxiety Disorders, 11*(3), 221–240. [https://doi.org/10.1016/S0887-6185\(97\)00008-X](https://doi.org/10.1016/S0887-6185(97)00008-X)
- Chambless, D. L., Tran, G. Q., & Glass, C. R. (1997b). Predictors of Response to Cognitive-Behavioral Group Therapy for Social Phobia. *Journal of Anxiety Disorders, 11*(3), 221–240. [https://doi.org/10.1016/S0887-6185\(97\)00008-X](https://doi.org/10.1016/S0887-6185(97)00008-X)
- Chen, Y. P., Ehlers, A., Clark, D. M., & Mansell, W. (2002). Patients with generalized social phobia direct their attention away from faces. *Behaviour Research and Therapy, 40*(6), 677–687. [https://doi.org/10.1016/S0005-7967\(01\)00086-9](https://doi.org/10.1016/S0005-7967(01)00086-9)
- Cheung, M. S.-P., Gilbert, P., & Irons, C. (2004). An exploration of shame, social rank and rumination in relation to depression. *Personality and Individual Differences, 36*(5), 1143–1153. [https://doi.org/10.1016/S0191-8869\(03\)00206-X](https://doi.org/10.1016/S0191-8869(03)00206-X)
- Chung, Y. S., & Kwon, J.-H. (2008). The Efficacy of Bibliotherapy for Social Phobia. *Brief Treatment and Crisis Intervention, 8*(4), 390–401. <https://doi.org/10.1093/brief-treatment/mhp001>
- Clark, D. M. (1999). Anxiety disorders: Why they persist and how to treat them. *Behaviour Research and Therapy, 37*(Suppl 1), S5–S27. [https://doi.org/10.1016/S0005-7967\(99\)00048-0](https://doi.org/10.1016/S0005-7967(99)00048-0)
- Clark, D. M. (2001). A cognitive perspective on social phobia. In W. R. Crozier, L. E. Alden, W. R. Crozier (Ed), & L. E. Alden (Ed) (Eds.), *International handbook of social anxiety: Concepts, research and interventions relating to the self and shyness*. (pp. 405–430). John Wiley & Sons Ltd.
- Clark, D. M. (2005). A Cognitive Perspective on Social Phobia. In W. R. Crozier & L. E. Alden (Eds.), *The essential handbook of social anxiety for clinicians*. (pp. 193–218). New York, NY: John Wiley & Sons Ltd. (2005-04991-011).
- Clark, D.M., Butler, G., Fennell, M., Hackman, A., McManus, T., and Wells, A. (1995) *The Social Behaviours Questionnaire and The Social Attitudes Questionnaire*. Unpublished manuscript. Oxford University.
- Clark, D. M., Ehlers, A., Hackmann, A., McManus, F., Fennell, M., Grey, N., ... Wild, J. (2006). Cognitive therapy versus exposure and applied relaxation in social phobia: A randomized controlled trial. *Journal of Consulting and Clinical Psychology, 74*(3), 568–578. <https://doi.org/10.1037/0022-006X.74.3.568>

- Clark, D. M., Ehlers, A., McManus, F., Hackmann, A., Fennell, M., Campbell, H., ... Louis, B. (2003). Cognitive Therapy Versus Fluoxetine in Generalized Social Phobia: A Randomized Placebo-Controlled Trial. *Journal of Consulting and Clinical Psychology, 71*(6), 1058–1067. <https://doi.org/10.1037/0022-006X.71.6.1058>
- Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, F. R. Schneier, R. G. Heimberg (Ed), M. R. Liebowitz (Ed), ... F. R. Schneier (Ed) (Eds.), *Social phobia: Diagnosis, assessment, and treatment*. (pp. 69–93). New York: Guilford.
- Coles, M. E., Turk, C. L., Jindra, L., & Heimberg, R. G. (2004). The path from initial inquiry to initiation of treatment for social anxiety disorder in an anxiety disorders specialty clinic. *Journal of Anxiety Disorders, 18*(3), 371–383. [https://doi.org/10.1016/S0887-6185\(02\)00259-1](https://doi.org/10.1016/S0887-6185(02)00259-1)
- Connor, K. M., & Davidson, J. R. . T. (2012). *Connor–Davidson Resilience Scale* [Data set]. <https://doi.org/10.1037/t06346-000>
- Connor, K. M., Davidson, J. R. T., Churchill, L. E., Sherwood, A., Foa, E., & Weisler, R. H. (2000). Psychometric properties of the Social Phobia Inventory (SPIN): New self-rating scale. *The British Journal of Psychiatry, 176*, 379–386. <https://doi.org/10.1192/bjp.176.4.379>
- Cook, David R. (1988). Measuring Shame:: The Internalized Shame Scale. *Alcoholism Treatment Quarterly, 4*(2), 197–215. https://doi.org/10.1300/J020v04n02_12
- Cook, D.R., Kostecki-Dillon, T., Wilson, W., Coccimiglio, J., & Inc, M.-H. S. (2001). *Internalized Shame Scale: Technical Manual*. North Tonawanda, NY : Multi-Health Systems
- Cogle, J. R., Keough, M. E., Riccardi, C. J., & Sachs-Ericsson, N. (2009). Anxiety disorders and suicidality in the National Comorbidity Survey-Replication. *Journal of Psychiatric Research, 43*(9), 825–829. <https://doi.org/10.1016/j.jpsychires.2008.12.004>
- Cox, B. J., Swinson, R. P., Shulman, I. D., & Bourdeau, D. (1995). Alexithymia in panic disorder and social phobia. *Comprehensive Psychiatry, 36*(3), 195–198. [https://doi.org/10.1016/0010-440X\(95\)90081-6](https://doi.org/10.1016/0010-440X(95)90081-6)
- Craske, M. G., Kircanski, K., Zelikowsky, M., Mystkowski, J., Chowdhury, N., & Baker, A. (2008). Optimizing inhibitory learning during exposure therapy. *Behaviour Research and Therapy, 46*(1), 5–27. <https://doi.org/10.1016/j.brat.2007.10.003>

- Craske, M. G., Niles, A. N., Burklund, L. J., Wolitzky-Taylor, K. B., Vildardaga, J. C. P., Arch, J. J., ... Lieberman, M. D. (2014). Randomized controlled trial of cognitive behavioral therapy and acceptance and commitment therapy for social phobia: Outcomes and moderators. *Journal of Consulting and Clinical Psychology, 82*(6), 1034–1048. <https://doi.org/10.1037/a0037212>
- Crozier, W. R., & Alden, L. E. (2001). *International handbook of social anxiety: Concepts, research and interventions relating to the self and shyness.* (W. R. Crozier & L. E. Alden, Eds.), John Wiley & Sons Ltd.
- Cuming, S., Rapee, R. M., Kemp, N., Abbott, M. J., Peters, L., & Gaston, J. E. (2009). A self-report measure of subtle avoidance and safety behaviors relevant to social anxiety: Development and psychometric properties. *Journal of Anxiety Disorders, 23*(7), 879–883. <https://doi.org/10.1016/j.janxdis.2009.05.002>
- Curtis, R. C., & Miller, K. (1986). Believing another likes or dislikes you: Behaviors making the beliefs come true. *Journal of Personality and Social Psychology, 51*(2), 284–290. <https://doi.org/10.1037/0022-3514.51.2.284>
- Dalrymple, K. L. (2012). Issues and controversies surrounding the diagnosis and treatment of social anxiety disorder. *Expert Review of Neurotherapeutics, 12*(8), 993–1009. <https://doi.org/10.1586/ern.12.81>
- Davidson, J. R. T., Foa, E. B., Huppert, J. D., Keefe, F. J., Franklin, M. E., Compton, J. S., ... Gadde, K. M. (2004). Fluoxetine, comprehensive cognitive behavioral therapy, and placebo in generalized social phobia. *Archives of General Psychiatry, 61*(10), 1005–1013. <https://doi.org/10.1001/archpsyc.61.10.1005>
- Davidson, J. R. T., Miner, C. M., De Vaugh-Geiss, J., Tupler, L. A., Colket, J. T., & Potts, N. L. S. (1997). The Brief Social Phobia Scale: A psychometric evaluation. *Psychological Medicine, 27*(1), 161–166. <https://doi.org/10.1017/S0033291796004217>
- de Haan, H. A., Schellekens, A. F. A., van der Palen, J., Verkes, R.-J., Buitelaar, J. K., & De Jong, C. A. J. (2012). The level of alexithymia in Alcohol-Dependent patients does not influence outcomes after inpatient treatment. *The American Journal of Drug and Alcohol Abuse, 38*(4), 299–304. <https://doi.org/10.3109/00952990.2012.668597>
- De Rubeis, S., & Hollenstein, T. (2009). Individual differences in shame and depressive symptoms during early adolescence. *Personality and Individual Differences, 46*(4), 477–482. <https://doi.org/10.1016/j.paid.2008.11.019>

- Del Rosario, P. M., & White, R. M. (2006). The Internalized Shame Scale: Temporal stability, internal consistency, and principal components analysis. *Personality and Individual Differences, 41*(1), 95–103. <https://doi.org/10.1016/j.paid.2005.10.026>
- Dere, J., Falk, C. F., & Ryder, A. G. (2012). Unpacking Cultural Differences in Alexithymia: The Role of Cultural Values Among Euro-Canadian and Chinese-Canadian Students. *Journal of Cross-Cultural Psychology, 43*(8), 1297–1312. <https://doi.org/10.1177/0022022111430254>
- Derogatis, L. R. et al. (1974). The Hopkins Symptom Checklist (HSCL): A measure of primary symptom dimensions. In P. Pichot & R. Olivier-Martin (Eds.), *Psychological measurements in psychopharmacology*. <https://doi.org/10.1159/000395070>
- Desnoyers, A. J., Kocovski, N. L., Fleming, J. E., & Antony, M. M. (2017). Self-focused attention and safety behaviors across group therapies for social anxiety disorder. *Anxiety, Stress, & Coping, 30*(4), 441–455. <https://doi.org/10.1080/10615806.2016.1239083>
- DeWit, D. J., Ogborne, A., Offord, D. R., & MacDonald, K. (1999). Antecedents of the risk of recovery from DSM-III-R social phobia. *Psychological Medicine, 29*(3), 569–582. <https://doi.org/10.1017/S0033291799008399>
- DiGiuseppe, R., & Froh, J. J. (2002). What cognitions predict state anger? *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 20*(2), 133–150. <https://doi.org/10.1023/A:1019835215935>
- Dubi, K., Rapee, R. M., Emerton, J. L., & Schniering, C. A. (2008). Maternal modeling and the acquisition of fear and avoidance in toddlers: Influence of stimulus preparedness and child temperament. *Journal of Abnormal Child Psychology, 36*(4), 499–512. <https://doi.org/10.1007/s10802-007-9195-3>
- Dunn, T. W., Vittengl, J. R., Clark, L. A., Carmody, T., Thase, M. E., & Jarrett, R. B. (2012). Change in Psychosocial Functioning and Depressive Symptoms during Acute-Phase Cognitive Therapy for Depression. *Psychological Medicine, 42*(2), 317–326. <https://doi.org/10.1017/S0033291711001279>
- Edelmann, R. J. (1981). Embarrassment: The state of research. *Current Psychological Reviews, 1*(2), 125–137. <https://doi.org/10.1007/BF02979260>
- Ehlers, A., and Clark, D. M. (1998). *The Fear of Negative Evaluation Questionnaire-Revised*. Unpublished manuscript. Oxford University
- Elster, J. (1999). *Alchemies of the mind: rationality and the emotions*. Cambridge, U.K. ; New York: Cambridge University Press.

- Eng, W., Heimberg, R. G., Hart, T. A., Schneier, F. R., & Liebowitz, M. R. (2001). Attachment in individuals with social anxiety disorder: The relationship among adult attachment styles, social anxiety, and depression. *Emotion, 1*(4), 365–380. <https://doi.org/10.1037/1528-3542.1.4.365>
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science, 196*(4286), 129–136. <https://doi.org/10.1126/science.847460>
- Ertekin, E., Koyuncu, A., Ertekin, B. A., & Özyıldırım, İ. (2015). Alexithymia in social anxiety disorder: Is there a specific relationship or is it a feature of comorbid major depression? *Anadolu Psikiyatri Dergisi, 16*(2), 130–137. (2015-13610-008).
- Erwin, B. A., Heimberg, R. G., Schneier, F. R., & Liebowitz, M. R. (2003). Anger experience and expression in social anxiety disorder: Pretreatment profile and predictors of attrition and response to cognitive-behavioral treatment. *Behavior Therapy, 34*(3), 331–350. [https://doi.org/10.1016/S0005-7894\(03\)80004-7](https://doi.org/10.1016/S0005-7894(03)80004-7)
- Evans, C., Margison, F., & Barkham, M. (1998). The contribution of reliable and clinically significant change methods to evidence-based mental health. *Evidence-Based Mental Health, 1*(3), 70–72.
- Fang, A., & Hofmann, S. G. (2010). Relationship between social anxiety disorder and body dysmorphic disorder. *Clinical Psychology Review, 30*(8), 1040–1048. <https://doi.org/10.1016/j.cpr.2010.08.001>
- Farber, B. A., Berano, K. C., & Capobianco, J. A. (2004). Clients' Perceptions of the Process and Consequences of Self-Disclosure in Psychotherapy. *Journal of Counseling Psychology, 51*(3), 340–346. <https://doi.org/10.1037/0022-0167.51.3.340>
- Farber, B. A., & Hall, D. (2002). Disclosure to therapists: What is and is not discussed in psychotherapy. *Journal of Clinical Psychology, 58*(4), 359–370. <https://doi.org/10.1002/jclp.1148>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). GPower 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Faytout, M., Tignol, J., Swendsen, J., Grabot, D., Aouizerate, B., & Lépine, J. P. (2007). Social phobia, fear of negative evaluation and harm avoidance. *European Psychiatry, 22*(2), 75–79. <https://doi.org/10.1016/j.eurpsy.2005.07.009>
- Fedoroff, I. C., & Taylor, S. (2001). Psychological and pharmacological treatments of social phobia: A meta-analysis. *Journal of Clinical Psychopharmacology, 21*(3), 311–324. <https://doi.org/10.1097/00004714-200106000-00011>

- Fehm, L., Beesdo, K., Jacobi, F., & Fiedler, A. (2008). Social anxiety disorder above and below the diagnostic threshold: prevalence, comorbidity and impairment in the general population. *Social Psychiatry and Psychiatric Epidemiology*, *43*(4), 257–265. <https://doi.org/10.1007/s00127-007-0299-4>
- Fehm, L., Pelissolo, A., Furmark, T., & Wittchen, H.-U. (2005). Size and burden of social phobia in Europe. *European Neuropsychopharmacology*, *15*(4), 453–462. <https://doi.org/10.1016/j.euroneuro.2005.04.002>
- Fehm, L., Schneider, G., & Hoyer, J. (2007). Is post-event processing specific for social anxiety? *Journal of Behavior Therapy and Experimental Psychiatry*, *38*(1), 11–22. <https://doi.org/10.1016/j.jbtep.2006.02.004>
- Fergus, T. A., Valentiner, D. P., McGrath, P. B., Stephenson, K., Gier, S., & Jencius, S. (2009). The Fear of Positive Evaluation Scale: Psychometric properties in a clinical sample. *Journal of Anxiety Disorders*, *23*(8), 1177–1183. <https://doi.org/10.1016/j.janxdis.2009.07.024>
- Feske, U., & Chambless, D. L. (1995). Cognitive behavioral versus exposure only treatment for social phobia: A meta-analysis. *Behavior Therapy*, *26*(4), 695–720. [https://doi.org/10.1016/S0005-7894\(05\)80040-1](https://doi.org/10.1016/S0005-7894(05)80040-1)
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, California : Stanford University Press,.
- First, M. B. (Ed.). (1997). *User's guide for the Structured clinical interview for DSM-IV axis II personality disorders: SCID-II*. Arlington, Va: American Psychiatric Publ.
- First, M. B., New York State Psychiatric Institute, & Biometrics Research Department. (1997). *Structured clinical interview for DSM-IV axis I disorders: SCID-I*. Washington, DC; New York, N.Y.: American Psychiatric Press ; Biometrics Research Dept., New York State Psychiatric Institute.
- Fogarty, C., Hevey, D., & McCarthy, O. (2019). Effectiveness of cognitive behavioural group therapy for social anxiety disorder: long-term benefits and aftercare. *Behavioural and Cognitive Psychotherapy*, 1–13. <https://doi.org/10.1017/S1352465819000079>
- Franzoni, E., Gualandi, S., Caretti, V., Schimmenti, A., Di Pietro, E., Pellegrini, G., ... Pellicciari, A. (2013). The relationship between alexithymia, shame, trauma, and body image disorders: investigation over a large clinical sample. *Neuropsychiatric Disease and Treatment*, *9*, 185–193. <https://doi.org/10.2147/NDT.S34822>

- Fresco, D. M., Coles, M. E., Heimberg, R. G., Leibowitz, M. R., Hami, S., Stein, M. B., & Goetz, D. (2001). The Liebowitz Social Anxiety Scale: A comparison of the psychometric properties of self-report and clinician-administered formats. *Psychological Medicine, 31*(6), 1025–1035.
<https://doi.org/10.1017/S0033291701004056>
- Frost, R. O., Glossner, K., & Maxner, S. (2010). Social Anxiety Disorder and Its Relationship to Perfectionism. In *Social Anxiety* (pp. 119–145).
<https://doi.org/10.1016/B978-0-12-375096-9.00005-5>
- Fukunishi, I., Kikuchi, M., Wogan, J., & Takubo, M. (1997). Secondary alexithymia as a state reaction in panic disorder and social phobia. *Comprehensive Psychiatry, 38*(3), 166–170. [https://doi.org/10.1016/S0010-440X\(97\)90070-5](https://doi.org/10.1016/S0010-440X(97)90070-5)
- Furmark, T. (2002). Social phobia: Overview of community surveys. *Acta Psychiatrica Scandinavica, 105*(2), 84–93. <https://doi.org/10.1034/j.1600-0447.2002.1r103.x>
- Gámez, W., Chmielewski, M., Kotov, R., Ruggero, C., & Watson, D. (2011). Development of a measure of experiential avoidance: The Multidimensional Experiential Avoidance Questionnaire. *Psychological Assessment, 23*(3), 692–713.
<https://doi.org/10.1037/a0023242>
- Gaston, J. E., Abbott, M. J., Rapee, R. M., & Neary, S. A. (2006). Do empirically supported treatments generalize to private practice? A benchmark study of a cognitive-behavioural group treatment programme for social phobia. *British Journal of Clinical Psychology, 45*(1), 33–48.
<https://doi.org/10.1348/014466505X35146>
- George, L., & Stopa, L. (2008). Private and public self-awareness in social anxiety. *Journal of Behavior Therapy and Experimental Psychiatry, 39*(1), 57–72.
<https://doi.org/10.1016/j.jbtep.2006.09.004>
- Gilbert, P. (1992). *Human nature and suffering*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc. (1989-98148-000).
- Gilbert, P. (2000). The relationship of shame, social anxiety and depression: the role of the evaluation of social rank. *Clinical Psychology & Psychotherapy, 7*(3), 174–189.
[https://doi.org/10.1002/1099-0879\(200007\)7:3<174::AID-CPP236>3.0.CO;2-U](https://doi.org/10.1002/1099-0879(200007)7:3<174::AID-CPP236>3.0.CO;2-U)
- Gilbert, P. (2001). Evolution and social anxiety: The role of attraction, social competition, and social hierarchies. *Psychiatric Clinics of North America, 24*(4), 723–751.
[https://doi.org/10.1016/S0193-953X\(05\)70260-4](https://doi.org/10.1016/S0193-953X(05)70260-4)
- Gilbert, P. (2003). Evolution, social roles and the differences in shame and guilt. *Social Research, 70*, 1205–1230.

- Gilbert, P. (2009). Moving beyond cognitive behaviour therapy. *The Psychologist*, 22(5), 400–403. (2009-07844-004).
- Gilbert, P. (2010a). *Compassion focused therapy: distinctive features*. London ; New York: Routledge.
- Gilbert, P. (2010b). *The compassionate mind: a new approach to life's challenges*. Oakland, Calif: New Harbinger Publications.
- Gilbert, P. (2014). The origins and nature of compassion focused therapy. *British Journal of Clinical Psychology*, 53(1), 6–41. <https://doi.org/10.1111/bjc.12043>
- Gilbert, P., & McGuire, M. T. (1998). Shame, status, and social roles: Psychobiology and evolution. In P. Gilbert & B. Andrews (Eds.), *Shame: Interpersonal behavior, psychopathology, and culture*. (pp. 99–125). New York, NY: Oxford University Press. (1999-02191-005).
- Glass, C. R., Arnkoff, D. B., & Shapiro, S. J. (2001). Expectations and preferences. *Psychotherapy: Theory, Research, Practice, Training*, 38(4), 455–461. <https://doi.org/10.1037/0033-3204.38.4.455>
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.
- Goodman, W. K., Price, L. H., Rasmussen, S. A., Mazure, C., Fleischmann, R. L., Hill, C. L., ... Charney, D. S. (1989). The Yale-Brown Obsessive Compulsive Scale. I. Development, use, and reliability. *Archives of General Psychiatry*, 46(11), 1006–1011.
- Gottschalk, M. G., & Domschke, K. (2017). Genetics of generalized anxiety disorder and related traits. *Dialogues in Clinical Neuroscience*, 19(2), 159–168.
- Gould, R. A., Buckminster, S., Pollack, M. H., Otto, M. W., & Yap, L. (1997). Cognitive-behavioral and pharmacological treatment for social phobia: A meta-analysis. *Clinical Psychology: Science and Practice*, 4(4), 291–306. <https://doi.org/10.1111/j.1468-2850.1997.tb00123.x>
- Grant, B. F., Hasin, D. S., Blanco, C., Stinson, F. S., Chou, S. P., Goldstein, R. B., ... Huang, B. (2005). The Epidemiology of Social Anxiety Disorder in the United States: Results From the National Epidemiologic Survey on Alcohol and Related Conditions. *The Journal of Clinical Psychiatry*, 66(11), 1351–1361. <https://doi.org/10.4088/JCP.v66n1102>
- Grisham, J. R., King, B. J., Makkar, S. R., & Felmingham, K. L. (2015). The contributions of arousal and self-focused attention to avoidance in social anxiety. *Anxiety, Stress & Coping: An International Journal*, 28(3), 303–320. <https://doi.org/10.1080/10615806.2014.968144>

- Hackmann, A., Clark, D. M., & McManus, F. (2000). Recurrent images and early memories in social phobia. *Behaviour Research and Therapy*, *38*(6), 601–610.
[https://doi.org/10.1016/S0005-7967\(99\)00161-8](https://doi.org/10.1016/S0005-7967(99)00161-8)
- Hamilton, M. (1960). A rating scale for depression. *Journal of Neurology, Neurosurgery, and Psychiatry*, *23*, 56–62.
- Haug, T. T., Blomhoff, S., Hellstrøm, K., Holme, I., Humble, M., Madsbu, H. P., & Wold, J. E. (2003). Exposure therapy and sertraline in social phobia: 1-year follow-up of a randomised controlled trial. *The British Journal of Psychiatry*, *182*(4), 312–318.
<https://doi.org/10.1192/bjp.182.4.312>
- Haviland, M. G., Louise Warren, W., & Riggs, M. L. (2000). An Observer Scale to Measure Alexithymia. *Psychosomatics*, *41*(5), 385–392.
<https://doi.org/10.1176/appi.psy.41.5.385>
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: a regression-based approach* (Second edition). New York London: The Guilford Press.
- Hayes, A. F., Montoya, A. K., & Rockwood, N. J. (2017). The analysis of mechanisms and their contingencies: PROCESS versus structural equation modeling. *Australasian Marketing Journal (AMJ)*, *25*(1), 76–81.
<https://doi.org/10.1016/j.ausmj.2017.02.001>
- Hayes, A. F., & Rockwood, N. J. (2017). Regression-based statistical mediation and moderation analysis in clinical research: Observations, recommendations, and implementation. *Behaviour Research and Therapy*, *98*, 39–57.
<https://doi.org/10.1016/j.brat.2016.11.001>
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (2016). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. In S. C. Hayes (Ed.), *The act in context: The canonical papers of Steven C. Hayes*. (pp. 171–203). New York, NY: Routledge/Taylor & Francis Group. (2015-53131-011).
- Hedman, E., Mörtberg, E., Hesser, H., Clark, D. M., Lekander, M., Andersson, E., & Ljótsson, B. (2013). Mediators in psychological treatment of social anxiety disorder: Individual cognitive therapy compared to cognitive behavioral group therapy. *Behaviour Research and Therapy*, *51*(10), 696–705.
<https://doi.org/10.1016/j.brat.2013.07.006>

- Hedman, E., Ström, P., Stümel, A., & Mörtberg, E. (2013). Shame and Guilt in Social Anxiety Disorder: Effects of Cognitive Behavior Therapy and Association with Social Anxiety and Depressive Symptoms. *PLoS ONE*, 8(4), e61713. <https://doi.org/10.1371/journal.pone.0061713>
- Heimberg, R. C., Brozovich, F. A., & Rapee, R. M. (2010). A cognitive behavioral model of social anxiety disorder: Update and extension. In S. G. Hofmann, P. M. DiBartolo, S. G. Hofmann (Ed), & P. M. DiBartolo (Ed) (Eds.), *Social anxiety: Clinical, developmental, and social perspectives.*, 2nd ed. (pp. 395–422). <https://doi.org/10.1016/B978-0-12-375096-9.00015-8>
- Heimberg, R. G. (1989). Cognitive and behavioral treatments for social phobia: A critical analysis. *Clinical Psychology Review*, 9(1), 107–128. [https://doi.org/10.1016/0272-7358\(89\)90050-0](https://doi.org/10.1016/0272-7358(89)90050-0)
- Heimberg, R. G. (1995). *Social Phobia: Diagnosis, Assessment, and Treatment*. Guilford Press.
- Heimberg, R. G., & Becker, R. E. (2002). *Cognitive-behavioral group therapy for social phobia: Basic mechanisms and clinical strategies*. New York, NY, US: Guilford Press. (2002-17460-000).
- Heimberg, R. G., Hofmann, S. G., Liebowitz, M. R., Schneier, F. R., Smits, J. A. J., Stein, M. B., ... Craske, M. G. (2014). Social anxiety disorder in DSM-5. *Depression and Anxiety*, 31(6), 472–479. <https://doi.org/10.1002/da.22231>
- Heimberg, R. G., Holt, C. S., Schneier, F. R., Spitzer, R. L., & Liebowitz, M. R. (1993). The issue of subtypes in the diagnosis of social phobia. *Journal of Anxiety Disorders*, 7(3), 249–269. [https://doi.org/10.1016/0887-6185\(93\)90006-7](https://doi.org/10.1016/0887-6185(93)90006-7)
- Heimberg, R. G., Horner, K. J., Juster, H. R., Safren, S. A., Brown, E. J., Schneier, F. R., & Liebowitz, M. R. (1999). Psychometric properties of the Liebowitz Social Anxiety Scale. *Psychological Medicine*, 29(1), 199–212. <https://doi.org/10.1017/S0033291798007879>
- Heimberg, R. G., & Juster, H. R. (1994). Treatment of social phobia in cognitive-behavioral groups. *The Journal of Clinical Psychiatry*, 55(6, Suppl), 38–46. (1995-02661-001).
- Heimberg, R. G., & Juster, H. R. (1995). Cognitive-behavioral treatments: Literature review. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, F. R. Schneier, R. G. Heimberg (Ed), M. R. Liebowitz (Ed), ... F. R. Schneier (Ed) (Eds.), *Social phobia: Diagnosis, assessment, and treatment*. (pp. 261–309). New York, NY, US: Guilford Press. (1995-98887-012).

- Heimberg, R. G., Juster, H. R., Hope, D. A., & Mattia, J. I. (1995). Cognitive-behavioral group treatment: Description, case presentation, and empirical support. In M. B. Stein & M. B. Stein (Ed) (Eds.), *Social phobia: Clinical and research perspectives*. (pp. 293–321). Arlington, VA, US: American Psychiatric Association. (1995-98235-010).
- Heimberg, R. G., Liebowitz, M. R., Hope, D. A., Schneier, F. R., Holt, C. S., Welkowitz, L. A., ... Klein, D. F. (1998). Cognitive behavioral group therapy vs phenelzine therapy for social phobia: 12-week outcome. *Archives of General Psychiatry*, *55*(12), 1133–1141. <https://doi.org/10.1001/archpsyc.55.12.1133>
- Heimberg, R. G., Mueller, G. P., Holt, C. S., Hope, D. A., & Liebowitz, M. R. (1992). Assessment of anxiety in social interaction and being observed by others: The Social Interaction Anxiety Scale and the Social Phobia Scale. *Behavior Therapy*, *23*(1), 53–73. [https://doi.org/10.1016/S0005-7894\(05\)80308-9](https://doi.org/10.1016/S0005-7894(05)80308-9)
- Heimberg, R. G., Salzman, D. G., Holt, C. S., & Blendell, K. A. (1993). Cognitive-behavioral group treatment for social phobia: Effectiveness at five-year followup. *Cognitive Therapy and Research*, *17*(4), 325–339. <https://doi.org/10.1007/BF01177658>
- Helbig-Lang, S., & Petermann, F. (2010). Tolerate or eliminate? A systematic review on the effects of safety behavior across anxiety disorders. *Clinical Psychology: Science and Practice*, *17*(3), 218–233. <https://doi.org/10.1111/j.1468-2850.2010.01213.x>
- Herbert, J. D., Forman, E. M., Kaye, J. L., Gershkovich, M., Goetter, E., Yuen, E. K., ... Marando-Blanck, S. (2018). Randomized controlled trial of acceptance and commitment therapy versus traditional cognitive behavior therapy for social anxiety disorder: Symptomatic and behavioral outcomes. *Journal of Contextual Behavioral Science*, *9*, 88–96. <https://doi.org/10.1016/j.jcbs.2018.07.008>
- Hofmann, S. G. (2000). Self-focused attention before and after treatment of social phobia. *Behaviour Research and Therapy*, *38*(7), 717–725. [https://doi.org/10.1016/S0005-7967\(99\)00105-9](https://doi.org/10.1016/S0005-7967(99)00105-9)
- Hofmann, S. G. (2007). Cognitive factors that maintain social anxiety disorder: A comprehensive model and its treatment implications. *Cognitive Behaviour Therapy*, *36*(4), 193–209. <https://doi.org/10.1080/16506070701421313>
- Hofmann, S. G., & DiBartolo, P. M. (2014). *Social anxiety: Clinical, developmental, and social perspectives*. Elsevier.

- Hogg, M. A. (1993). Group Cohesiveness: A Critical Review and Some New Directions. *European Review of Social Psychology*, 4(1), 85–111.
<https://doi.org/10.1080/14792779343000031>
- Hollon, S. D., & Najavits, L. (1988). Review of empirical studies in cognitive therapy. In *American Psychiatric Press review of psychiatry* (A. J. Frances & R. E. Hales (Eds.), pp. 634–666). Washington, DC: American Psychiatric Press.
- Horley, K., Williams, L. M., Gonsalvez, C., & Gordon, E. (2004). Face to face: visual scanpath evidence for abnormal processing of facial expressions in social phobia. *Psychiatry Research*, 127(1–2), 43–53.
<https://doi.org/10.1016/j.psychres.2004.02.016>
- Hwu, H., Yeh, E.-K., & Chang, L.-Y. (1989). Prevalence of psychiatric disorders in Taiwan defined by the Chinese Diagnostic Interview Schedule. *Acta Psychiatrica Scandinavica*, 79(2), 136–147. <https://doi.org/10.1111/j.1600-0447.1989.tb08581.x>
- Issakidis, C., & Andrews, G. (2004). Pretreatment attrition and dropout in an outpatient clinic for anxiety disorders. *Acta Psychiatrica Scandinavica*, 109(6), 426–433.
<https://doi.org/10.1111/j.1600-0047.2004.00264.x>
- Jacobson, N. S., Follette, W. C., Revenstorf, D., Baucom, D. H., Hahlweg, K., & Margolin, G. (2000). Variability in outcome and clinical significance of behavioral marital therapy: A reanalysis of outcome data. *Prevention & Treatment*, 3(1).
<https://doi.org/10.1037/1522-3736.3.1.315a>
- Jacobson, N. S., Roberts, L. J., Berns, S. B., & McGlinchey, J. B. (1999). Methods for defining and determining the clinical significance of treatment effects: Description, application, and alternatives. *Journal of Consulting and Clinical Psychology*, 67(3), 300–307. <https://doi.org/10.1037/0022-006X.67.3.300>
- Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, 59(1), 12–19. <https://doi.org/10.1037/0022-006X.59.1.12>
- Jakymyn, A. K., & Harris, L. M. (2012). Self-focused attention and social anxiety. *Australian Journal of Psychology*, 64(2), 61–67. <https://doi.org/10.1111/j.1742-9536.2011.00027.x>
- Jazaieri, H., Goldin, P. R., Werner, K., Ziv, M., & Gross, J. J. (2012). A randomized trial of MBSR versus aerobic exercise for social anxiety disorder. *Journal of Clinical Psychology*, 68(7), 715–731. <https://doi.org/10.1002/jclp.21863>
- Joiner, T. (2005). *Why people die by suicide*. Cambridge, MA: Harvard University Press. (2006-06716-000).

- Joormann, J., Dkane, M., & Gotlib, I. H. (2006). Adaptive and Maladaptive Components of Rumination? Diagnostic Specificity and Relation to Depressive Biases. *Behavior Therapy, 37*(3), 269–280. <https://doi.org/10.1016/j.beth.2006.01.002>
- Kachin, K. E., Newman, M. G., & Pincus, A. L. (2001). An interpersonal problem approach to the division of social phobia subtypes. *Behavior Therapy, 32*(3), 479–501. [https://doi.org/10.1016/S0005-7894\(01\)80032-0](https://doi.org/10.1016/S0005-7894(01)80032-0)
- Kagan, J. (1997). Temperament and the reactions to unfamiliarity. *Child Development, 68*(1), 139–143. <https://doi.org/10.2307/1131931>
- Kampman, M., Keijsers, G. P. J., Hoogduin, C. A. L., & Hendriks, G.-J. (2008). Outcome prediction of cognitive behaviour therapy for panic disorder: Initial symptom severity is predictive for treatment outcome, comorbid anxiety or depressive disorder, cluster C personality disorders and initial motivation are not. *Behavioural and Cognitive Psychotherapy, 36*(1), 99–112. <https://doi.org/10.1017/S1352465807004018>
- Kashdan, T. B., Barrios, V., Forsyth, J. P., & Steger, M. F. (2006). Experiential avoidance as a generalized psychological vulnerability: Comparisons with coping and emotion regulation strategies. *Behaviour Research and Therapy, 44*(9), 1301–1320. <https://doi.org/10.1016/j.brat.2005.10.003>
- Kashdan, T. B., Breen, W. E., Afram, A., & Terhar, D. (2010). Experiential avoidance in idiographic, autobiographical memories: Construct validity and links to social anxiety, depressive, and anger symptoms. *Journal of Anxiety Disorders, 24*(5), 528–534. <https://doi.org/10.1016/j.janxdis.2010.03.010>
- Kashdan, T. B., & Collins, R. L. (2010). Social anxiety and the experience of positive emotion and anger in everyday life: an ecological momentary assessment approach. *Anxiety, Stress & Coping, 23*(3), 259–272. <https://doi.org/10.1080/10615800802641950>
- Kashdan, T. B., & Roberts, J. E. (2007). Social anxiety, depressive symptoms, and post-event rumination: Affective consequences and social contextual influences. *Journal of Anxiety Disorders, 21*(3), 284–301. <https://doi.org/10.1016/j.janxdis.2006.05.009>
- Katzelnick, D. J., & Greist, J. H. (2001). Social anxiety disorder: An unrecognized problem in primary care. *The Journal of Clinical Psychiatry, 62*(Suppl1), 11–16. (2001-14407-002).
- Kaufman, J., & Charney, D. (2000). Comorbidity of mood and anxiety disorders. *Depression and Anxiety, 12*(S1), 69–76. [https://doi.org/10.1002/1520-6394\(2000\)12:1+<69::AID-DA9>3.0.CO;2-K](https://doi.org/10.1002/1520-6394(2000)12:1+<69::AID-DA9>3.0.CO;2-K)

- Kawa, S., & Giordano, J. (2012). A brief historicity of the Diagnostic and Statistical Manual of Mental Disorders: Issues and implications for the future of psychiatric canon and practice. *Philosophy, Ethics, and Humanities in Medicine*, 7(1), 2. <https://doi.org/10.1186/1747-5341-7-2>
- Kazdin, A. E. (1999). The meanings and measurement of clinical significance. *Journal of Consulting and Clinical Psychology*, 67(3), 332–339. <https://doi.org/10.1037/0022-006X.67.3.332>
- Kazdin, A. E. (2001). Almost clinically significant ($p < .10$): Current measures may only approach clinical significance. *Clinical Psychology: Science and Practice*, 8(4), 455–462. <https://doi.org/10.1093/clipsy/8.4.455>
- Kelly, A. E., & Yuan, K.-H. (2009). Clients' secret keeping and the working alliance in adult outpatient therapy. *Psychotherapy: Theory, Research, Practice, Training*, 46(2), 193–202. <https://doi.org/10.1037/a0016084>
- Keltner, D., & Haidt, J. (2001). Social functions of emotions at four levels of analysis. In W. G. Parrott & W. G. Parrott (Eds.) (Eds.), *Emotions in social psychology: Essential readings*. (pp. 175–184). New York, NY, US: Psychology Press. (2000-12576-009).
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62(6), 593–602. <https://doi.org/10.1001/archpsyc.62.6.593>
- Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., ... Kendler, K. S. (1994). Lifetime and 12-month prevalence of DSM-III—R psychiatric disorders in the United States: Results from the National Comorbidity Study. *Archives of General Psychiatry*, 51(1), 8–19. <https://doi.org/10.1001/archpsyc.1994.03950010008002>
- Killaspy, H., Banerjee, S., King, M., & Lloyd, M. (2000). Prospective controlled study of psychiatric out-patient non-attendance: Characteristics and outcome. *The British Journal of Psychiatry*, 176(2), 160–165. <https://doi.org/10.1192/bjp.176.2.160>
- Kim, E.-J. (2005). The effect of the decreased safety behaviors on anxiety and negative thoughts in social phobics. *Journal of Anxiety Disorders*, 19(1), 69–86. <https://doi.org/10.1016/j.janxdis.2003.11.002>

- Kim, J. H., Lee, S. J., Rim, H. D., Kim, H. W., Bae, G. Y., & Chang, S. M. (2008). The Relationship between Alexithymia and General Symptoms of Patients with Depressive Disorders. *Psychiatry Investigation*, *5*(3), 179.
<https://doi.org/10.4306/pi.2008.5.3.179>
- Kim, J., Talbot, N. L., & Cicchetti, D. (2009). Childhood abuse and current interpersonal conflict: The role of shame. *Child Abuse & Neglect*, *33*(6), 362–371.
<https://doi.org/10.1016/j.chiabu.2008.10.003>
- Kim, S., Thibodeau, R., & Jorgensen, R. S. (2011). Shame, guilt, and depressive symptoms: A meta-analytic review. *Psychological Bulletin*, *137*(1), 68–96.
<https://doi.org/10.1037/a0021466>
- Kirk, A., Meyer, J. M., Whisman, M. A., Deacon, B. J., & Arch, J. J. (2019). Safety behaviors, experiential avoidance, and anxiety: A path analysis approach. *Journal of Anxiety Disorders*, *64*, 9–15. <https://doi.org/10.1016/j.janxdis.2019.03.002>
- Klein, D. F. (1999). Harmful dysfunction, disorder, disease, illness, and evolution. *Journal of Abnormal Psychology*, *108*(3), 421–429. <https://doi.org/10.1037/0021-843X.108.3.421>
- Knappe, S., Beesdo-Baum, K., Fehm, L., Lieb, R., & Wittchen, H.-U. (2012). Characterizing the association between parenting and adolescent social phobia. *Journal of Anxiety Disorders*, *26*(5), 608–616.
<https://doi.org/10.1016/j.janxdis.2012.02.014>
- Kopelman, S., Rosette, A. S., & Thompson, L. (2006). The three faces of Eve: Strategic displays of positive, negative, and neutral emotions in negotiations. *Organizational Behavior and Human Decision Processes*, *99*(1), 81–101.
<https://doi.org/10.1016/j.obhdp.2005.08.003>
- Koran, L. M. (2010). *Treatment of Patients With Obsessive-Compulsive Disorder*. 96.
- Korte, K. J., Unruh, A. S., Oglesby, M. E., & Schmidt, N. B. (2015). Safety aid use and social anxiety symptoms: The mediating role of perceived control. *Psychiatry Research*, *228*(3), 510–515. <https://doi.org/10.1016/j.psychres.2015.06.006>
- Koyuncu, A., Ertekin, E., Binbay, Z., Özyıldırım, İ., Yüksel, Ç., & Tükel, R. (2014). The clinical impact of mood disorder comorbidity on social anxiety disorder. *Comprehensive Psychiatry*, *55*(2), 363–369.
<https://doi.org/10.1016/j.comppsy.2013.08.016>
- Kring, A. M., & Sloan, D. M. (Eds.). (2010). *Emotion regulation and psychopathology: a transdiagnostic approach to etiology and treatment*. New York, NY: Guilford Press.

- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*(9), 606–613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Krystal, H. (1979). Alexithymia and psychotherapy. *American Journal of Psychotherapy, 33*(1), 17–31. (1979-26525-001).
- Lampe, L., Slade, T., Issakidis, C., & Andrews, G. (2003). Social phobia in the Australian National Survey of Mental Health and Well-Being (NSMHWB). *Psychological Medicine, 33*(4), 637–646. <https://doi.org/10.1017/S0033291703007621>
- Lane, R. D., Sechrest, L., Riedel, R., Shapiro, D. E., & Kaszniak, A. W. (2000). Pervasive emotion recognition deficit common to alexithymia and the repressive coping style. *Psychosomatic Medicine, 62*(4), 492–501. <https://doi.org/10.1097/00006842-200007000-00007>
- Leary, M. R. (1983). A brief version of the Fear of Negative Evaluation Scale. *Personality and Social Psychology Bulletin, 9*(3), 371–375. <https://doi.org/10.1177/0146167283093007>
- Leary, M. R. (1986). The impact of interactional impediments on social anxiety and self-presentation. *Journal of Experimental Social Psychology, 22*(2), 122–135. [https://doi.org/10.1016/0022-1031\(86\)90032-6](https://doi.org/10.1016/0022-1031(86)90032-6)
- Leary, M. R. (2001). Toward a conceptualization of interpersonal rejection. In M. R. Leary (Ed.), *Interpersonal rejection*. (pp. 3–20). New York, NY: Oxford University Press. (2001-06667-001).
- Leary, M. R., Atherton, S. C., Hill, S., & Hur, C. (1986). Attributional mediators of social inhibition and avoidance. *Journal of Personality, 54*(4), 704–716. <https://doi.org/10.1111/j.1467-6494.1986.tb00421.x>
- Leary, M. R., & Kowalski, R. M. (1995). *Social anxiety*. New York: Guilford Press.
- Leary, M. R., Kowalski, R. M., & Campbell, C. D. (1988). Self-presentational concerns and social anxiety: The role of generalized impression expectancies. *Journal of Research in Personality, 22*(3), 308–321. [https://doi.org/10.1016/0092-6566\(88\)90032-3](https://doi.org/10.1016/0092-6566(88)90032-3)
- Leary, M. R., Twenge, J. M., & Quinlivan, E. (2006). Interpersonal Rejection as a Determinant of Anger and Aggression. *Personality and Social Psychology Review, 10*(2), 111–132. https://doi.org/10.1207/s15327957pspr1002_2
- Leaviss, J., & Uttley, L. (2015). Psychotherapeutic benefits of compassion-focused therapy: an early systematic review. *Psychological Medicine; Cambridge, 45*(5), 927–945. <http://dx.doi.org/10.1017/S0033291714002141>

- Lee, J., Kim, M., & Park, M. (2014). The impact of internalized shame on social anxiety in adolescence: The mediating role of experiential avoidance. *Journal of Asia Pacific Counseling, 4*(1), 65–81. <https://doi.org/10.18401/2014.4.1.5>
- Lee, R. M., Dean, B. L., & Jung, K.-R. (2008). Social connectedness, extraversion, and subjective well-being: Testing a mediation model. *Personality and Individual Differences, 45*(5), 414–419. <https://doi.org/10.1016/j.paid.2008.05.017>
- Leichsenring, F., Hoyer, J., Beutel, M., Herpertz, S., Hiller, W., Irle, E., ... Leibing, E. (2008). The social phobia psychotherapy research network: The first multicenter randomized controlled trial of psychotherapy for social phobia: Rationale, methods and patient characteristics. *Psychotherapy and Psychosomatics, 78*(1), 35–41. <https://doi.org/10.1159/000162299>
- Leichsenring, Falk, Beutel, M., & Leibing, E. (2007). Psychodynamic psychotherapy for social phobia: A treatment manual based on supportive-expressive therapy. *Bulletin of the Menninger Clinic, 71*(1), 56–83. <https://doi.org/10.1521/bumc.2007.71.1.56>
- Leichsenring, Falk, Salzer, S., Beutel, M. E., Herpertz, S., Hiller, W., Hoyer, J., ... Leibing, E. (2013). Psychodynamic Therapy and Cognitive-Behavioral Therapy in Social Anxiety Disorder: A Multicenter Randomized Controlled Trial. *American Journal of Psychiatry, 170*(7), 759–767. <https://doi.org/10.1176/appi.ajp.2013.12081125>
- Levinson, C. A., & Rodebaugh, T. L. (2012). Social anxiety and eating disorder comorbidity: the role of negative social evaluation fears. *Eating Behaviors, 13*(1), 27–35. <https://doi.org/10.1016/j.eatbeh.2011.11.006>
- Lewis, M. (1992). *Shame: The exposed self*. New York, NY: Free Press. (1992-97054-000).
- Liebowitz, M. R., Heimberg, R. G., Schneier, F. R., Hope, D. A., Davies, S., Holt, C. S., ... Klein, D. F. (1999). Cognitive-behavioral group therapy versus phenelzine in social phobia: long-term outcome. *Depression and Anxiety, 10*(3), 89–98.
- Liebowitz, Michael R. (1987). Social Phobia. In D.F. Klein (Ed.), *Modern Trends in Pharmacopsychiatry* (Vol. 22, pp. 141–173). <https://doi.org/10.1159/000414022>
- Lievaart, M., Franken, I. H. A., & Hovens, J. E. (2016). Anger assessment in clinical and nonclinical populations: Further validation of the State–Trait Anger Expression Inventory-2. *Journal of Clinical Psychology, 72*(3), 263–278. <https://doi.org/10.1002/jclp.22253>
- Linehan, M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.

- Linehan, M. (2015). *DBT skills training manual* (Second edition). New York: The Guilford Press.
- Lipsitz, J. D., Gur, M., Vermes, D., Petkova, E., Cheng, J., Miller, N., ... Fyer, A. J. (2008). A randomized trial of interpersonal therapy versus supportive therapy for social anxiety disorder. *Depression And Anxiety*, 25(6), 542–553. (17941096).
- Lipsitz, J. D., Markowitz, J., & Cherry, S. (1997). *Manual for interpersonal psychotherapy of social phobia. unpublished manuscript*: Columbia University College of Physicians., New York, NY.
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, 58, 593–614.
<https://doi.org/10.1146/annurev.psych.58.110405.085542>
- 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(2), 159–168.
<https://doi.org/10.1001/archpsyc.1996.01830020077009>
- Malan, D. H. (1976). *The frontier of brief psychotherapy: An example of the convergence of research and clinical practice*. <https://doi.org/10.1007/978-1-4684-2220-7>
- Malan, D. H. (1996). The frontier of brief psychotherapy. In J. E. Groves (Ed.), *Essential papers on short-term dynamic therapy*. (pp. 381–399). New York, NY: New York University Press. (1996-97820-016).
- Maltby, J., Day, L., Flowe, H. D., Vostanis, P., & Chivers, S. (2019). Psychological Trait Resilience Within Ecological Systems Theory: The Resilient Systems Scales. *Journal of Personality Assessment*, 101(1), 44–53.
<https://doi.org/10.1080/00223891.2017.1344985>
- Maner, J. K. (2009). Anxiety: Proximate processes and ultimate functions. *Social and Personality Psychology Compass*, 3(5), 798–811. <https://doi.org/10.1111/j.1751-9004.2009.00211.x>
- Maner, J. K., & Kenrick, D. T. (2010). When adaptations go awry: Functional and dysfunctional aspects of social anxiety. *Social Issues and Policy Review*, 4(1), 111–142. <https://doi.org/10.1111/j.1751-2409.2010.01019.x>
- Marks, I. M., & Gelder, M. G. (1966). Different ages of onset in varieties of phobia. *The American Journal of Psychiatry*, 123(2), 218–221.
<https://doi.org/10.1176/ajp.123.2.218>
- Marks, I. M., & Mathews, A. M. (1979). Brief Standard Self-Rating for Phobic Patients. *PsycTESTS*. <https://doi.org/10.1037/t11849-000>

- Marks, Isaac M. (1975). *Fears and phobias* (Reprint). London: Heinemann.
- Marom, S., Gilboa-Schechtman, E., Aderka, I. M., Weizman, A., & Hermesh, H. (2009). Impact of depression on treatment effectiveness and gains maintenance in social phobia: A naturalistic study of cognitive behavior group therapy. *Depression and Anxiety, 26*(3), 289–300. <https://doi.org/10.1002/da.20390>
- Martin, R. C., & Dahlen, E. R. (2005). Cognitive emotion regulation in the prediction of depression, anxiety, stress, and anger. *Personality and Individual Differences, 39*(7), 1249–1260. <https://doi.org/10.1016/j.paid.2005.06.004>
- Marzillier, J. S., Lambert, C., & Kellett, J. (1976). A controlled evaluation of systematic desensitization and social skills training for socially inadequate psychiatric patients. *Behaviour Research and Therapy, 14*(3), 225–238. [https://doi.org/10.1016/0005-7967\(76\)90015-2](https://doi.org/10.1016/0005-7967(76)90015-2)
- Matos, M., Pinto-Gouveia, J., & Gilbert, P. (2013). The effect of shame and shame memories on paranoid ideation and social anxiety. *Clinical Psychology & Psychotherapy, 20*(4), 334–349. <https://doi.org/10.1002/cpp.1766>
- Mattick, R. P., & Clarke, J. C. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behaviour Research and Therapy, 36*(4), 455–470. [https://doi.org/10.1016/S0005-7967\(97\)10031-6](https://doi.org/10.1016/S0005-7967(97)10031-6)
- Mattick, R. P., Page, A., & Lampe, L. (1995). Cognitive and behavioral aspects. In M. B. Stein (Ed.), *Social phobia: Clinical and research perspectives*. (pp. 189–227). Arlington, VA: American Psychiatric Association. (1995-98235-007).
- Mattick, R. P., & Peters, L. (1988). Treatment of severe social phobia: Effects of guided exposure with and without cognitive restructuring. *Journal of Consulting and Clinical Psychology, 56*(2), 251–260. <https://doi.org/10.1037/0022-006X.56.2.251>
- McCarthy, O., Hevey, D., Brogan, A., & Kelly, B. D. (2013). Effectiveness of a cognitive behavioural group therapy (CBGT) for social anxiety disorder: Immediate and long-term benefits. *The Cognitive Behaviour Therapist, 6*.
<https://doi.org/10.1017/S1754470X13000111>
- McCullough, M. E., Emmons, R. A., & Tsang, J.-A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology, 82*(1), 112–127. <https://doi.org/10.1037/0022-3514.82.1.112>
- McEvoy, P. M. (2007). Effectiveness of cognitive behavioural group therapy for social phobia in a community clinic: A benchmarking study. *Behaviour Research and Therapy, 45*(12), 3030–3040. <https://doi.org/10.1016/j.brat.2007.08.002>

- McEvoy, P. M., Nathan, P., Rapee, R. M., & Campbell, B. N. C. (2012). Cognitive behavioural group therapy for social phobia: Evidence of transportability to community clinics. *Behaviour Research and Therapy*, *50*(4), 258–265. <https://doi.org/10.1016/j.brat.2012.01.009>
- McEvoy, P. M., & Perini, S. J. (2009). Cognitive behavioral group therapy for social phobia with or without attention training: A controlled trial. *Journal of Anxiety Disorders*, *23*(4), 519–528. <https://doi.org/10.1016/j.janxdis.2008.10.008>
- McManus, F., Sacadura, C., & Clark, D. M. (2008). Why social anxiety persists: An experimental investigation of the role of safety behaviours as a maintaining factor. *Journal of Behavior Therapy and Experimental Psychiatry*, *39*(2), 147–161. <https://doi.org/10.1016/j.jbtep.2006.12.002>
- Meesters, C., Muris, P., Bosma, H., & Schouten, E. (1996). Psychometric evaluation of the Dutch version of the Aggression Questionnaire. *Behaviour Research and Therapy*, *34*(10), 839–843. [https://doi.org/10.1016/0005-7967\(96\)00065-4](https://doi.org/10.1016/0005-7967(96)00065-4)
- Mellings, T. M. B., & Alden, L. E. (2000). Cognitive processes in social anxiety: The effects of self-focus, rumination and anticipatory processing. *Behaviour Research and Therapy*, *38*(3), 243–257. [https://doi.org/10.1016/S0005-7967\(99\)00040-6](https://doi.org/10.1016/S0005-7967(99)00040-6)
- Mennin, D. S., Heimberg, R. G., & Jack, M. S. (2000). Comorbid Generalized Anxiety Disorder in Primary Social Phobia: Symptom Severity, Functional Impairment, and Treatment Response. *Journal of Anxiety Disorders*, *14*(4), 325–343. [https://doi.org/10.1016/S0887-6185\(00\)00026-8](https://doi.org/10.1016/S0887-6185(00)00026-8)
- Meyer, V. (1966). Modification of expectations in cases with obsessional rituals. *Behaviour Research and Therapy*, *4*(4), 273–280. [https://doi.org/10.1016/0005-7967\(66\)90023-4](https://doi.org/10.1016/0005-7967(66)90023-4)
- Mezzich, J. E. (2002). International Surveys on the Use of ICD-10 and Related Diagnostic Systems. *Psychopathology*, *35*(2–3), 72–75. <https://doi.org/10.1159/000065122>
- Miller, S. B. (1985). *The shame experience*. Hillsdale, N.J: Analytic Press : Distributed by L. Erlbaum Associates.
- Millon, T. (1969). *Modern psychopathology: a biosocial approach to maladaptive learning and functioning*. Philadelphia, Pa.: W.B. Saunders.
- Mineka, S., & Zinbarg, R. (1996). Conditioning and ethological models of anxiety disorders: Stress-in-Dynamic-Context Anxiety models. In D. A. Hope (Ed.), *Nebraska Symposium on Motivation, 1995: Perspectives on anxiety, panic, and fear*. (pp. 135–210). Lincoln, NE: University of Nebraska Press. (1996-98882-003).

- Mitchell, M. A., & Schmidt, N. B. (2014). General in-situation safety behaviors are uniquely associated with post-event processing. *Journal of Behavior Therapy and Experimental Psychiatry*, 45(2), 229–233.
<https://doi.org/10.1016/j.jbtep.2013.11.001>
- Mohammadi, M.-R., Ghanizadeh, A., Mohammadi, M., & Mesgarpour, B. (2006). Prevalence of social phobia and its comorbidity with psychiatric disorders in Iran. *Depression and Anxiety*, 23(7), 405–411. <https://doi.org/10.1002/da.20129>
- Morgan, H., & Raffle, C. (1999). Does reducing safety behaviors improve treatment response in patients with social phobia? *Australian and New Zealand Journal of Psychiatry*, 33(4), 503–510. <https://doi.org/10.1046/j.1440-1614.1999.00599.x>
- Mörtberg, E., Clark, D. M., Sundin, Ö., & Wistedt, A. Å. (2007). Intensive group cognitive treatment and individual cognitive therapy vs treatment as usual in social phobia: A randomized controlled trial. *Acta Psychiatrica Scandinavica*, 115(2), 142–154.
<https://doi.org/10.1111/j.1600-0447.2006.00839.x>
- Moscovitch, D. A., Hofmann, S. G., Suvak, M. K., & In-Albon, T. (2005). Mediation of changes in anxiety and depression during treatment of social phobia. *Journal of Consulting and Clinical Psychology*, 73(5), 945–952. <https://doi.org/10.1037/0022-006X.73.5.945>
- Moscovitch, D. A., McCabe, R. E., Antony, M. M., Rocca, L., & Swinson, R. P. (2008). Anger experience and expression across the anxiety disorders. *Depression and Anxiety*, 25(2), 107–113. <https://doi.org/10.1002/da.20280>
- Moscovitch, D. A., Rowa, K., Paulitzki, J. R., Ierullo, M. D., Chiang, B., Antony, M. M., & McCabe, R. E. (2013). Self-portrayal concerns and their relation to safety behaviors and negative affect in social anxiety disorder. *Behaviour Research and Therapy*, 51(8), 476–486. <https://doi.org/10.1016/j.brat.2013.05.002>
- Mowrer, O. H. (1960). *Learning theory and behavior*. Hoboken, NJ, US: John Wiley & Sons Inc. <https://doi.org/10.1037/10802-000>
- Mundt, J. C., Marks, I. M., Shear, M. K., & Greist, J. M. (2002). The Work and Social Adjustment Scale: A simple measure of impairment in functioning. *The British Journal of Psychiatry*, 180(5), 461–464. <https://doi.org/10.1192/bjp.180.5.461>
- 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 and Therapy*, 39(9), 1051–1061.
[https://doi.org/10.1016/S0005-7967\(00\)00081-4](https://doi.org/10.1016/S0005-7967(00)00081-4)

- Muris, P., van Zwol, L., Huijding, J., & Mayer, B. (2010). Mom told me scary things about this animal: Parents installing fear beliefs in their children via the verbal information pathway. *Behaviour Research and Therapy*, *48*(4), 341–346. <https://doi.org/10.1016/j.brat.2009.12.001>
- National Collaborating Centre for Mental Health (Great Britain) (Ed.). (2013). *Social anxiety disorder: recognition, assessment and treatment*. Leicester: The British Psychological Society.
- Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity*, *2*(3), 223–250. <https://doi.org/10.1080/15298860309027>
- Neff, K. D. (2016). The Self-Compassion Scale is a Valid and Theoretically Coherent Measure of Self-Compassion. *Mindfulness*, *7*(1), 264–274. <https://doi.org/10.1007/s12671-015-0479-3>
- Nemiah, J. C., Freyberger, H., & Sifneos, P. E. (1976). Alexithymia: A view of the psychosomatic process. In *Modern trends in psychosomatic medicine* (O. W. Hill (Ed.), Vol. 3, pp. 430–439). London: Butterworths.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, *84*(3), 231–259. <https://doi.org/10.1037/0033-295X.84.3.231>
- Nolen-Hoeksema, S., & Morrow, J. (1991). A prospective study of depression and posttraumatic stress symptoms after a natural disaster: the 1989 Loma Prieta Earthquake. *Journal of Personality and Social Psychology*, *61*(1), 115–121.
- Oei, T. P. S., & Boschen, M. J. (2009). Clinical effectiveness of a cognitive behavioral group treatment program for anxiety disorders: A benchmarking study. *Journal of Anxiety Disorders*, *23*(7), 950–957. <https://doi.org/10.1016/j.janxdis.2009.06.004>
- Ogrodniczuk, J. S., Piper, W. E., & Joyce, A. S. (2005). The negative effect of alexithymia on the outcome of group therapy for complicated grief: what role might the therapist play? *Comprehensive Psychiatry*, *46*(3), 206–213. <https://doi.org/10.1016/j.comppsy.2004.08.005>
- Ogrodniczuk, J. S., Piper, W. E., & Joyce, A. S. (2011). Effect of alexithymia on the process and outcome of psychotherapy: A programmatic review. *Psychiatry Research*, *190*(1), 43–48. <https://doi.org/10.1016/j.psychres.2010.04.026>
- Okajima, I., Kanai, Y., Chen, J., & Sakano, Y. (2009). Effects of safety behaviour on the maintenance of anxiety and negative belief social anxiety disorder. *International Journal of Social Psychiatry*, *55*(1), 71–81. <https://doi.org/10.1177/0020764008092191>

- Ollendick, T. H., Öst, L.-G., Reuterskiöld, L., & Costa, N. (2010). Comorbidity in youth with specific phobias: Impact of comorbidity on treatment outcome and the impact of treatment on comorbid disorders. *Behaviour Research and Therapy*, *48*(9), 827–831. <https://doi.org/10.1016/j.brat.2010.05.024>
- O'Sullivan, K., Mc Carthy, O., Hevey, D., & Lowry, D. (2013) Estimating the prevalence of Social Anxiety Disorder in an Irish Community Sample (unpublished paper, Trinity College Dublin)
- Panayiotou, G., Leonidou, C., Constantinou, E., & Michaelides, M. P. (2018). Self-awareness in alexithymia and associations with social anxiety. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*. <https://doi.org/10.1007/s12144-018-9855-1>
- Papachristou, H., Theodorou, M., Neophytou, K., & Panayiotou, G. (2018). Community sample evidence on the relations among behavioural inhibition system, anxiety sensitivity, experiential avoidance, and social anxiety in adolescents. *Journal of Contextual Behavioral Science*, *8*, 36–43. <https://doi.org/10.1016/j.jcbs.2018.03.001>
- Parker, J. D. A., Taylor, G. J., & Bagby, R. M. (2001). The relationship between emotional intelligence and alexithymia. *Personality and Individual Differences*, *30*(1), 107–115. [https://doi.org/10.1016/S0191-8869\(00\)00014-3](https://doi.org/10.1016/S0191-8869(00)00014-3)
- Parker, J. D. A., Taylor, G. J., & Bagby, R. M. (2003). The 20-Item Toronto Alexithymia Scale. III. Reliability and factorial validity in a community population. *Journal of Psychosomatic Research*, *55*(3), 269–275.
- Pélissolo, A., André, C., Moutard-Martin, F., Wittchen, H. U., & Lépine, J. P. (2000). Social phobia in the community: Relationship between diagnostic threshold and prevalence. *European Psychiatry*, *15*(1), 25–28. [https://doi.org/10.1016/S0924-9338\(00\)00214-5](https://doi.org/10.1016/S0924-9338(00)00214-5)
- Penney, E. S., & Abbott, M. J. (2015). The impact of perceived standards on state anxiety, appraisal processes, and negative pre- and post-event rumination in Social Anxiety Disorder. *Cognitive Therapy and Research*, *39*(2), 162–177. <https://doi.org/10.1007/s10608-014-9639-3>
- Perugi, G., Akiskal, H. S., Ramacciotti, S., Nassini, S., Toni, C., Milanfranchi, A., & Musetti, L. (1999). Depressive comorbidity of panic, social phobic, and obsessive-compulsive disorders re-examined: Is there a bipolar II connection? *Journal of Psychiatric Research*, *33*(1), 53–61. [https://doi.org/10.1016/S0022-3956\(98\)00044-2](https://doi.org/10.1016/S0022-3956(98)00044-2)

- Perugi, G., Frare, F., Toni, C., Mata, B., & Akiskal, H. S. (2001). Bipolar II and unipolar comorbidity in 153 outpatients with social phobia. *Comprehensive Psychiatry*, *42*(5), 375–381. <https://doi.org/10.1053/comp.2001.26270>
- Pinto-Gouveia, J., Castilho, P., Galhardo, A., & Cunha, M. (2006). Early Maladaptive Schemas and Social Phobia. *Cognitive Therapy and Research*, *30*(5), 571–584. <https://doi.org/10.1007/s10608-006-9027-8>
- Pinto-Gouveia, J., & Matos, M. (2011). Can shame memories become a key to identity? The centrality of shame memories predicts psychopathology. *Applied Cognitive Psychology*, *25*(2), 281–290. <https://doi.org/10.1002/acp.1689>
- Plasencia, M. L., Alden, L. E., & Taylor, C. T. (2011). Differential effects of safety behaviour subtypes in social anxiety disorder. *Behaviour Research and Therapy*, *49*(10), 665–675. <https://doi.org/10.1016/j.brat.2011.07.005>
- Plomin, R., Chipuer, H. M., & Neiderhiser, J. M. (1994). Behavioral genetic evidence for the importance of nonshared environment. In E. M. Hetherington, D. Reiss, & R. Plomin (Eds.), *Separate social worlds of siblings: The impact of nonshared environment on development*. (pp. 1–31). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc. (1993-98770-001).
- Rabe-Jabłońska, J., Dietrich-Muszalska, A., & Gmitrowicz, A. (2004). The prevalence of social phobia in a representative group of adolescents from Lodz. *Archives of Psychiatry and Psychotherapy*, *6*(1), 15–22. (2004-15446-002).
- Rachman, S., & Hodgson, R. J. (1980). *Obsessions and compulsions*. Englewood Cliffs, N.J: Prentice-Hall.
- Rachman, S. J. (1990). *Fear and courage* (2. ed). New York: Freeman.
- Randall, C. L., Thomas, S., & Thevos, A. K. (2001). Concurrent Alcoholism and Social Anxiety Disorder: A First Step Toward Developing Effective Treatments. *Alcoholism: Clinical and Experimental Research*, *25*(2), 210–220. <https://doi.org/10.1111/j.1530-0277.2001.tb02201.x>
- Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behaviour Research and Therapy*, *35*(8), 741–756. [https://doi.org/10.1016/S0005-7967\(97\)00022-3](https://doi.org/10.1016/S0005-7967(97)00022-3)
- Rapee, R. M., & Melville, L. F. (1997). Recall of family factors in social phobia and panic disorder: Comparison of mother and offspring reports. *Depression & Anxiety* (1091-4269), *5*(1), 7–11.

- Regier, D. A., Rae, D. S., Narrow, W. E., Kaelber, C. T., & Schatzberg, A. F. (1998). Prevalence of anxiety disorders and their comorbidity with mood and addictive disorders. *The British Journal of Psychiatry*, *173*(Suppl 34), 24–28. (1998-10311-004).
- Reno, R. R., & Kenny, D. A. (1992). Effects of self-consciousness and social anxiety on self-disclosure among unacquainted individuals: An application of the Social Relations Model. *Journal of Personality*, *60*(1), 79–94.
<https://doi.org/10.1111/j.1467-6494.1992.tb00266.x>
- Richards, D. A., & Borglin, G. (2011). Implementation of psychological therapies for anxiety and depression in routine practice: Two year prospective cohort study. *Journal of Affective Disorders*, *133*(1), 51–60.
<https://doi.org/10.1016/j.jad.2011.03.024>
- Rizvi, S. L., & Linehan, M. M. (2005). The treatment of maladaptive shame in borderline personality disorder: A pilot study of “opposite action”. *Cognitive and Behavioral Practice*, *12*(4), 437–447. [https://doi.org/10.1016/S1077-7229\(05\)80071-9](https://doi.org/10.1016/S1077-7229(05)80071-9)
- Roark, A. E., & Sharah, H. S. (1989). Factors related to group cohesiveness. *Small Group Behavior*, *20*(1), 62–69. <https://doi.org/10.1177/104649648902000105>
- Rocha, F. L., Vorcaro, C. M. R., Uchoa, E., & Lima-Costa, M. F. (2005). Comparing the prevalence rates of social phobia in a community according to ICD-10 and DSM-III-R. *Revista Brasileira de Psiquiatria*, *27*(3), 222–224.
<https://doi.org/10.1590/S1516-44462005000300011>
- Rodebaugh, T. L., Heimberg, R. G., Brown, P. J., Fernandez, K. C., Blanco, C., Schneier, F. R., & Liebowitz, M. R. (2011). More reasons to be straightforward: Findings and norms for two scales relevant to social anxiety. *Journal of Anxiety Disorders*, *25*(5), 623–630. <https://doi.org/10.1016/j.janxdis.2011.02.002>
- Rodebaugh, T. L., Holaway, R. M., & Heimberg, R. G. (2004). The treatment of social anxiety disorder. *Clinical Psychology Review*, *24*(7), 883–908.
<https://doi.org/10.1016/j.cpr.2004.07.007>
- Roth, D. A., & Heimberg, R. G. (2001). Cognitive-behavioral models of social anxiety disorder. *Psychiatric Clinics of North America*, *24*(4), 753–771.
[https://doi.org/10.1016/S0193-953X\(05\)70261-6](https://doi.org/10.1016/S0193-953X(05)70261-6)
- Rufer, M., Albrecht, R., Zaum, J., Schnyder, U., Mueller-Pfeiffer, C., Hand, I., & Schmidt, O. (2010). Impact of alexithymia on treatment outcome: A naturalistic study of short-term cognitive-behavioral group therapy for panic disorder. *Psychopathology*, *43*(3), 170–179. <https://doi.org/10.1159/000288639>

- Rufer, M., Ziegler, A., Alsleben, H., Fricke, S., Ortmann, J., Brückner, E., ... Peter, H. (2006). A prospective long-term follow-up study of alexithymia in obsessive-compulsive disorder. *Comprehensive Psychiatry*, *47*(5), 394–398. <https://doi.org/10.1016/j.comppsy.2005.12.004>
- Ruscio, A. M., Brown, T. A., Chiu, W. T., Sareen, J., Stein, M. B., & Kessler, R. C. (2008). Social fears and social phobia in the USA: Results from the National Comorbidity Survey Replication. *Psychological Medicine*, *38*(1), 15–28. <https://doi.org/10.1017/S0033291707001699>
- Rybak, C. J., & Brown, B. M. (1996). Assessment of internalized shame: Validity and reliability of the internalized shame scale. *Alcoholism Treatment Quarterly*, *14*(1), 71–83. https://doi.org/10.1300/J020V14N01_07
- Saarijärvi, S., Salminen, J. K., & Toikka, T. (2006). Temporal Stability of Alexithymia Over a Five-Year Period in Outpatients with Major Depression. *Psychotherapy and Psychosomatics*, *75*(2), 107–112. <https://doi.org/10.1159/000090895>
- Saboonchi, F., Lundh, L.-G., & Öst, L.-G. (1999). Perfectionism and self-consciousness in social phobia and panic disorder with agoraphobia. *Behaviour Research and Therapy*, *37*(9), 799–808. [https://doi.org/10.1016/S0005-7967\(98\)00183-1](https://doi.org/10.1016/S0005-7967(98)00183-1)
- Salkovskis, P. M. (1991). The importance of behaviour in the maintenance of anxiety and panic: A cognitive account. *Behavioural Psychotherapy*, *19*(1), 6–19. <https://doi.org/10.1017/S0141347300011472>
- Salkovskis, P. M. (1996). The cognitive approach to anxiety: Threat beliefs, safety-seeking behavior, and the special case of health anxiety and obsessions. In P. M. Salkovskis (Ed.), *Frontiers of cognitive therapy*. (pp. 48–74). New York, NY: Guilford Press. (1996-98507-003).
- Sato, H., & Kawahara, J. (2011). Selective bias in retrospective self-reports of negative mood states. *Anxiety, Stress & Coping: An International Journal*, *24*(4), 359–367. <https://doi.org/10.1080/10615806.2010.543132>
- Saudino, K. J. (2005). Behavioral Genetics and Child Temperament. *Journal of Developmental and Behavioral Pediatrics : JDBP*, *26*(3), 214–223.
- Scaini, S., Belotti, R., & Ogliari, A. (2014). Genetic and environmental contributions to social anxiety across different ages: A meta-analytic approach to twin data. *Journal of Anxiety Disorders*, *28*(7), 650–656. <https://doi.org/10.1016/j.janxdis.2014.07.002>
- Schlenker, B. R., & Leary, M. R. (1982). Social anxiety and self-presentation: A conceptualization model. *Psychological Bulletin*, *92*(3), 641–669. <https://doi.org/10.1037/0033-2909.92.3.641>

- Schneier, F. R., Johnson, J., Hornig, C. D., Liebowitz, M. R., & Weissman, M. M. (1992). Social phobia: Comorbidity and morbidity in an epidemiologic sample. *Archives of General Psychiatry*, *49*(4), 282–288.
<https://doi.org/10.1001/archpsyc.1992.01820040034004>
- Scholing, A., & Emmelkamp, P. M. (1993). Exposure with and without cognitive therapy for generalized social phobia: Effects of individual and group treatment. *Behaviour Research and Therapy*, *31*(7), 667–681. [https://doi.org/10.1016/0005-7967\(93\)90120-J](https://doi.org/10.1016/0005-7967(93)90120-J)
- Scholing, A., & Emmelkamp, P. M. G. (1999). Prediction of treatment outcome in social phobia: A cross-validation. *Behaviour Research and Therapy*, *37*(7), 659–670.
[https://doi.org/10.1016/S0005-7967\(98\)00175-2](https://doi.org/10.1016/S0005-7967(98)00175-2)
- Schore, A. N. (1998). Early shame experiences and infant brain development. In P. Gilbert & B. Andrews (Eds.), *Shame: Interpersonal behavior, psychopathology, and culture*. (pp. 57–77). New York, NY: Oxford University Press. (1999-02191-003).
- Schreiber, F., Heimlich, C., Schweitzer, C., & Stangier, U. (2015). Cognitive therapy for social anxiety disorder: The impact of the ‘self-focused attention and safety behaviours experiment’ on the course of treatment. *Behavioural and Cognitive Psychotherapy*, *43*(2), 158–166. <https://doi.org/10.1017/S1352465813000672>
- Schuermans, J., Comijs, H., Emmelkamp, P. M. G., Weijnen, I. J. C., van den Hout, M., & van Dyck, R. (2009). Long-term effectiveness and prediction of treatment outcome in cognitive behavioral therapy and sertraline for late-life anxiety disorders. *International Psychogeriatrics*, *21*(6), 1148–1159.
<https://doi.org/10.1017/S1041610209990536>
- Segerstrom, S. C., Stanton, A. L., Alden, L. E., & Shortridge, B. E. (2003). A Multidimensional Structure for Repetitive Thought: What’s on Your Mind, and How, and How Much? *Journal of Personality and Social Psychology*, *85*(5), 909–921. <https://doi.org/10.1037/0022-3514.85.5.909>
- Shahar, B., Doron, G., & Szepeswol, O. (2015). Childhood maltreatment, shame-proneness and self-criticism in social anxiety disorder: A sequential mediational model. *Clinical Psychology & Psychotherapy*, *22*(6), 570–579.
<https://doi.org/10.1002/cpp.1918>
- Sheehan, D. V., Harnett-Sheehan, K., & Raj, B. A. (1996). The measurement of disability. *International Clinical Psychopharmacology*, *11 Suppl 3*, 89–95.
- Simon, G. E., & Perlis, R. H. (2010). Personalized Medicine for Depression: Can We Match Patients With Treatments? *Am J Psychiatry*, *11*.

- Skinner, B. F. (1974). *About behaviorism* (1st ed.). New York: Knopf; [distributed by Random House].
- Skocic, S., Jackson, H., Hulbert, C., & Faber, C. (2016). The Maintaining Factors of Social Anxiety: A Three-Group Comparison of a Clinical Sample with Highly Socially Anxious Students and Non-Anxious Students. *Behavioural and Cognitive Psychotherapy*, *44*(04), 385–396. <https://doi.org/10.1017/S1352465815000685>
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2016). *Brief Resilience Scale* [Data set]. <https://doi.org/10.1037/t51423-000>
- Spek, V., Nykliček, I., Cuijpers, P., & Pop, V. (2008). Alexithymia and cognitive behaviour therapy outcome for subthreshold depression. *Acta Psychiatrica Scandinavica*, *118*(2), 164–167. <https://doi.org/10.1111/j.1600-0447.2008.01199.x>
- Spielberger, C. (1999). *Professional Manual for the State-Trait Anger Expression Inventory-2 (STAXI-2)*. Odessa, FL: Psychological Assessment Resources;
- Spielberger, C. D. (1988). *Manual for the state-trait anger expression inventory (STAXI)*. Odessa, FL: Psychological Assessment Resources, Inc.
- Spitzer, Robert L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, *166*(10), 1092–1097. <https://doi.org/10.1001/archinte.166.10.1092>
- Spitzer, Robert Leopold, American Psychiatric Association, & Task Force on Nomenclature and Statistics. (1980). *Diagnostic and statistical manual of mental disorders*. Washington, D.C: American Psychiatric Association.
- Spokas, M., Luterek, J. A., & Heimberg, R. G. (2009). Social anxiety and emotional suppression: The mediating role of beliefs. *Journal of Behavior Therapy and Experimental Psychiatry*, *40*(2), 283–291. <https://doi.org/10.1016/j.jbtep.2008.12.004>
- Spurr, J. M., & Stopa, L. (2002). Self-focused attention in social phobia and social anxiety. *Clinical Psychology Review*, *22*(7), 947–975. [https://doi.org/10.1016/S0272-7358\(02\)00107-1](https://doi.org/10.1016/S0272-7358(02)00107-1)
- Stangier, U., Heidenreich, T., Peitz, M., Lauterbach, W., & Clark, D. M. (2003). Cognitive therapy for social phobia: individual versus group treatment. *Behaviour Research and Therapy*, *41*(9), 991–1007. [https://doi.org/10.1016/S0005-7967\(02\)00176-6](https://doi.org/10.1016/S0005-7967(02)00176-6)
- Stangier, Ulrich, Heidenreich, T., & Schermelleh-Engel, K. (2006). Safety Behaviors and Social Performance in Patients with Generalized Social Phobia. *Journal of Cognitive Psychotherapy*, *20*(1), 17–31. <https://doi.org/10.1891/jcop.20.1.17>

- Stein, M. B., & Kean, Y. M. (2000). Disability and quality of life in social phobia: Epidemiologic findings. *The American Journal of Psychiatry*, *157*(10), 1606–1613. <https://doi.org/10.1176/appi.ajp.157.10.1606>
- Stein, M. B., & Stein, D. J. (2008). Social anxiety disorder. *The Lancet*, *371*(9618), 1115–1125. [https://doi.org/10.1016/S0140-6736\(08\)60488-2](https://doi.org/10.1016/S0140-6736(08)60488-2)
- Stein, M. B., Tancer, M. E., Gelernter, C. S., Vittone, B. J., & Uhde, T. W. (1990). Major depression in patients with social phobia. *The American Journal of Psychiatry*, *147*(5), 637–639. <https://doi.org/10.1176/ajp.147.5.637>
- Steketee, G., & Chambless, D. L. (1992). Methodological issues in prediction of treatment outcome. *Clinical Psychology Review*, *12*(4), 387–400. [https://doi.org/10.1016/0272-7358\(92\)90123-P](https://doi.org/10.1016/0272-7358(92)90123-P)
- Stewart, A. L., Hays, R. D., & Ware, J. E. (1988). The MOS short-form general health survey: Reliability and validity in a patient population. *Medical Care*, *26*(7), 724–735. <https://doi.org/10.1097/00005650-198807000-00007>
- Stravynski, A., Arbel, N., Bounader, J., Gaudette, G., Lachance, L., Borgeat, F., ... Todorov, C. (2000). Social phobia treated as a problem in social functioning: a controlled comparison of two behavioural group approaches. *Acta Psychiatrica Scandinavica*, *102*(3), 188–198. (11008854).
- Stuhldreher, N., Leibing, E., Leichsenring, F., Beutel, M. E., Herpertz, S., Hoyer, J., ... König, H.-H. (2014). The costs of social anxiety disorder: The role of symptom severity and comorbidities. *Journal of Affective Disorders*, *165*, 87–94. <https://doi.org/10.1016/j.jad.2014.04.039>
- Sturmey, P., & Hersen, M. (Eds.). (2012). *Handbook of evidence-based practice in clinical psychology*. Hoboken, N.J: John Wiley & Sons.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York, NY: W W Norton & Co. (1954-01168-000).
- Summers, B. J., & Coughle, J. R. (2018). An experimental test of the role of appearance-related safety behaviors in body dysmorphic disorder, social anxiety, and body dissatisfaction. *Journal of Abnormal Psychology*. <https://doi.org/10.1037/abn0000387>
- Suslow, T., Donges, U.-S., Kersting, A., & Arolt, V. (2000). 20-Item Toronto Alexithymia Scale: Do difficulties describing feelings assess proneness to shame instead of difficulties symbolizing emotions? *Scandinavian Journal of Psychology*, *41*(4), 329–334. <https://doi.org/10.1111/1467-9450.00205>

- Tangney, June P., Wagner, P., Fletcher, C., & Gramzow, R. (1992). Shamed into anger? The relation of shame and guilt to anger and self-reported aggression. *Journal of Personality and Social Psychology*, 62(4), 669–675. <https://doi.org/10.1037/0022-3514.62.4.669>
- Tangney, June Price, & Dearing, R. L. (2004). *Shame and guilt* (Paperback ed. 2004). New York, NY: Guilford Press.
- Taube-Schiff, M., Suvak, M. K., Antony, M. M., Bieling, P. J., & McCabe, R. E. (2007). Group cohesion in cognitive-behavioral group therapy for social phobia. *Behaviour Research and Therapy*, 45(4), 687–698. <https://doi.org/10.1016/j.brat.2006.06.004>
- Taylor, C. T., & Alden, L. E. (2010). Safety behaviors and judgmental biases in social anxiety disorder. *Behaviour Research and Therapy*, 48(3), 226–237. <https://doi.org/10.1016/j.brat.2009.11.005>
- Taylor, C. T., & Alden, L. E. (2011). To see ourselves as others see us: An experimental integration of the intra and interpersonal consequences of self-protection in social anxiety disorder. *Journal of Abnormal Psychology*, 120(1), 129–141. <https://doi.org/10.1037/a0022127>
- Taylor, G. J., Bagby, R. M., & Parker, J. D. A. (1997). *Disorders of affect regulation: Alexithymia in medical and psychiatric illness*. <https://doi.org/10.1017/CBO9780511526831>
- Taylor, S. (1996). Meta-analysis of cognitive-behavioral treatment for social phobia. *Journal of Behavior Therapy and Experimental Psychiatry*, 27(1), 1–9. [https://doi.org/10.1016/0005-7916\(95\)00058-5](https://doi.org/10.1016/0005-7916(95)00058-5)
- Taylor, S., Asmundson, G. J. G., & Jang, K. L. (2011). Etiology of obsessive–compulsive symptoms and obsessive–compulsive personality traits: Common genes, mostly different environments. *Depression and Anxiety*, 28(10), 863–869. <https://doi.org/10.1002/da.20859>
- Tedeschi, J. T., & Felson, R. B. (1994). *Violence, aggression, and coercive actions*. <https://doi.org/10.1037/10160-000>
- The IAPT data handbook : guidance on recording and monitoring outcomes to support local evidence-based practice version 2.0.1. (2011, June 1). Retrieved from <http://webarchive.nationalarchives.gov.uk/20160302154833/http://www.iapt.nhs.uk/silo/files/iapt-data-handbook-v2.pdf>

- Thibodeau, M. A., Welch, P. G., Sareen, J., & Asmundson, G. J. G. (2013). Anxiety disorders are independently associated with suicide ideation and attempts: propensity score matching in two epidemiological samples. *Depression and Anxiety, 30*(10), 947–954. <https://doi.org/10.1002/da.22203>
- Thomas, A., & Chess, S. (1977). *Temperament and development*. New York: Brunner/Mazel.
- Thompson, S., & Rapee, R. M. (2002). The effect of situational structure on the social performance of socially anxious and non-anxious participants. *Journal of Behavior Therapy and Experimental Psychiatry, 33*(2), 91–102. [https://doi.org/10.1016/S0005-7916\(02\)00021-6](https://doi.org/10.1016/S0005-7916(02)00021-6)
- Titov, N., Andrews, G., Choi, I., Schwencke, G., & Johnston, L. (2009). Randomized controlled trial of web-based treatment of social phobia without clinician guidance. *Australian and New Zealand Journal of Psychiatry, 43*(10), 913–919. <https://doi.org/10.1080/00048670903179160>
- Titov, N., Andrews, G., Choi, I., Schwencke, G., & Mahoney, A. (2008). Shyness 3: Randomized controlled trial of guided versus unguided Internet-based CBT for social phobia. *Australian and New Zealand Journal of Psychiatry, 42*(12), 1030–1040. <https://doi.org/10.1080/00048670802512107>
- Tozzi, F., Aggen, S. H., Neale, B. M., Anderson, C. B., Mazzeo, S. E., Neale, M. C., & Bulik, C. M. (2004). The structure of perfectionism: A twin study. *Behavior Genetics, 34*(5), 483–494. <https://doi.org/10.1023/B:BEGE.0000038486.47219.76>
- Trew, J. L., & Alden, L. E. (2009). Predicting anger in social anxiety: The mediating role of rumination. *Behaviour Research and Therapy, 47*(12), 1079–1084. <https://doi.org/10.1016/j.brat.2009.07.019>
- Tschuschke, V., & Dies, R. R. (1997). The contribution of feedback to outcome in long-term group psychotherapy. *Group, 21*(1), 3–15. <https://doi.org/10.1007/BF02872750>
- van Dam-Baggen, R., & Kraaimaat, F. (2000). Group social skills training or cognitive group therapy as the clinical treatment of choice for generalized social phobia? *Journal of Anxiety Disorders, 14*(5), 437–451. [https://doi.org/10.1016/S0887-6185\(00\)00038-4](https://doi.org/10.1016/S0887-6185(00)00038-4)
- van Kleef, G. A., De Dreu, C. K. W., & Manstead, A. S. R. (2004). The Interpersonal Effects of Anger and Happiness in Negotiations. *Journal of Personality and Social Psychology, 86*(1), 57–76. <https://doi.org/10.1037/0022-3514.86.1.57>

- Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., & Joiner, T. E. Jr. (2012). Interpersonal Needs Questionnaire. *PsycTESTS*. <https://doi.org/10.1037/t10483-000>
- VandenBos, G. R., & American Psychological Association (Eds.). (2015). *APA dictionary of psychology* (Second Edition). Washington, DC: American Psychological Association.
- Vassilopoulos, S. P. (2008). Social anxiety and ruminative self-focus. *Journal of Anxiety Disorders*, *22*(5), 860–867. <https://doi.org/10.1016/j.janxdis.2007.08.012>
- Versella, M. V., Piccirillo, M. L., Potter, C. M., Olino, T. M., & Heimberg, R. G. (2016). Anger profiles in social anxiety disorder. *Journal of Anxiety Disorders*, *37*, 21–29. <https://doi.org/10.1016/j.janxdis.2015.10.008>
- Vertue, F. M. (2003). From adaptive emotion to dysfunction: An attachment perspective on social anxiety disorder. *Personality and Social Psychology Review*, *7*(2), 170–191. https://doi.org/10.1207/S15327957PSPR0702_170-191
- Vittengl, J. R., Clark, L. A., & Jarrett, R. B. (2009). Continuation-Phase Cognitive Therapy's Effects on Remission and Recovery from Depression. *Journal of Consulting and Clinical Psychology*, *77*(2), 367–371. <https://doi.org/10.1037/a0015238>
- Vriends, N., Meral, Y., Bargas-Avila, J. A., Stadler, C., & Bögels, S. M. (2017). How do I look? Self-focused attention during a video chat of women with social anxiety (disorder). *Behaviour Research and Therapy*, *92*, 77–86. <https://doi.org/10.1016/j.brat.2017.02.008>
- Wacker, H. R., Müllejans, R., Klein, K. H., & Battegay, R. (1992). Identification of cases of anxiety disorders and affective disorders in the community according to ICD-10 and DSM-III-R by using the Composite International Diagnostic Interview (CIDI). *International Journal of Methods in Psychiatric Research*, *2*, 91–100.
- Wallace, S. T., & Alden, L. E. (1995). Social anxiety and standard setting following social success or failure. *Cognitive Therapy and Research*, *19*(6), 613–631. <https://doi.org/10.1007/BF02227857>
- Wallace, S. T., & Alden, L. E. (1997). Social phobia and positive social events: The price of success. *Journal of Abnormal Psychology*, *106*(3), 416–424. <https://doi.org/10.1037/0021-843X.106.3.416>
- Watanabe, N., Furukawa, T. A., Chen, J., Kinoshita, Y., Nakano, Y., Ogawa, S., ... Noda, Y. (2010). Change in quality of life and their predictors in the long-term follow-up after group cognitive behavioral therapy for social anxiety disorder: a prospective cohort study. *BMC Psychiatry*, *10*, 81. <https://doi.org/10.1186/1471-244X-10-81>

- Watson, D., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology, 33*(4), 448–457.
<https://doi.org/10.1037/h0027806>
- Webb, M., Heisler, D., Call, S., Chickering, S. A., & Colburn, T. A. (2007). Shame, guilt, symptoms of depression, and reported history of psychological maltreatment. *Child Abuse & Neglect, 31*(11–12), 1143–1153.
<https://doi.org/10.1016/j.chiabu.2007.09.003>
- Weber, H., Wiedig, M., Freyer, J., & Gralher, J. (2004). Social Anxiety and Anger Regulation. *European Journal of Personality, 18*(7), 573–590.
<https://doi.org/10.1002/per.528>
- Weeks, D. G., Michela, J. L., Peplau, L. A., & Bragg, M. E. (1980). Relation between loneliness and depression: A structural equation analysis. *Journal of Personality and Social Psychology, 39*(6), 1238–1244. <https://doi.org/10.1037/h0077709>
- Weeks, J. W., Heimberg, R. G., & Rodebaugh, T. L. (2008). The Fear of Positive Evaluation Scale: Assessing a proposed cognitive component of social anxiety. *Journal of Anxiety Disorders, 22*(1), 44–55.
<https://doi.org/10.1016/j.janxdis.2007.08.002>
- Weeks, J. W., Heimberg, R. G., Rodebaugh, T. L., Goldin, P. R., & Gross, J. J. (2012). Psychometric evaluation of the Fear of Positive Evaluation Scale in patients with social anxiety disorder. *Psychological Assessment, 24*(2), 301–312.
<https://doi.org/10.1037/a0025723>
- Weeks, J. W., Heimberg, R. G., Rodebaugh, T. L., & Norton, P. J. (2008). Exploring the relationship between fear of positive evaluation and social anxiety. *Journal of Anxiety Disorders, 22*(3), 386–400. <https://doi.org/10.1016/j.janxdis.2007.04.009>
- Weeks, J. W., & Howell, A. N. (2014). Fear of positive evaluation: The neglected fear domain in social anxiety. In J. W. Weeks (Ed.), *The Wiley Blackwell handbook of social anxiety disorder*. (pp. 433–453).
<https://doi.org/10.1002/9781118653920.ch20>
- Weeks, J. W., Jakatdar, T. A., & Heimberg, R. G. (2010). Comparing and contrasting fears of positive and negative evaluation as facets of social anxiety. *Journal of Social and Clinical Psychology, 29*(1), 68–94. <https://doi.org/10.1521/jscp.2010.29.1.68>
- Wells, A., Clark, D. M., Salkovskis, P., Ludgate, J., Hackmann, A., & Gelder, M. (1995). Social phobia: The role of in-situation safety behaviors in maintaining anxiety and negative beliefs. *Behavior Therapy, 26*(1), 153–161. [https://doi.org/10.1016/S0005-7894\(05\)80088-7](https://doi.org/10.1016/S0005-7894(05)80088-7)

- Wells, A., Clark, D. M., Salkovskis, P., Ludgate, J., Hackmann, A., & Gelder, M. (2016). Social phobia: The role of in-situation safety behaviors in maintaining anxiety and negative beliefs—Republished article. *Behavior Therapy*, 47(5), 669–674. <https://doi.org/10.1016/j.beth.2016.08.010>
- Wells, A., Stopa, L., and Clark, D.M. (1993). *The Social Cognitions Questionnaire*. Unpublished Manuscript, Oxford University
- Werner, K. H., Goldin, P. R., Ball, T. M., Heimberg, R. G., & Gross, J. J. (2011). Assessing Emotion Regulation in Social Anxiety Disorder: The Emotion Regulation Interview. *Journal of Psychopathology and Behavioral Assessment*, 33(3), 346–354. <https://doi.org/10.1007/s10862-011-9225-x>
- Wersebe, H., Sijbrandij, M., & Cuijpers, P. (2013). Psychological group-treatments of social anxiety disorder: A meta-analysis. *PLoS ONE*, 8(11). <https://doi.org/10.1371/journal.pone.0079034>
- Wiltink, J., Ruckes, C., Hoyer, J., Leichsenring, F., Joraschky, P., Leweke, F., ... Beutel, M. E. (2017). Transfer of manualized Short Term Psychodynamic Psychotherapy (STPP) for social anxiety disorder into clinical practice: Results from a cluster-randomised controlled trial. *BMC Psychiatry*, 17.
- Wittchen, H.-U., Stein, M. B., & Kessler, R. C. (1999). Social fears and social phobia in a community sample of adolescents and young adults: Prevalence, risk factors and co-morbidity. *Psychological Medicine*, 29(2), 309–323. <https://doi.org/10.1017/S0033291798008174>
- Wolgast, M., Lundh, L.-G., & Viborg, G. (2013). Experiential avoidance as an emotion regulatory function: An empirical analysis of experiential avoidance in relation to behavioral avoidance, cognitive reappraisal, and response suppression. *Cognitive Behaviour Therapy*, 42(3), 224–232. <https://doi.org/10.1080/16506073.2013.773059>
- Wolpe, J. (1959). Psychotherapy Based on the Principle of Reciprocal Inhibition. In A. Burton (Ed.), *Case studies in counseling and psychotherapy*. (pp. 353–381). <https://doi.org/10.1037/10575-013>
- Wood, J. V. (1996). What is social comparison and how should we study it? *Personality and Social Psychology Bulletin*, 22(5), 520–537. <https://doi.org/10.1177/0146167296225009>
- Woody, S. R., Chambless, D. L., & Glass, C. R. (1997). Self-focused attention in the treatment of social phobia. *Behaviour Research and Therapy*, 35(2), 117–129. [https://doi.org/10.1016/S0005-7967\(96\)00084-8](https://doi.org/10.1016/S0005-7967(96)00084-8)

- Woody, S. R., & Rodriguez, B. F. (2000). Self-focused attention and social anxiety in social phobics and normal controls. *Cognitive Therapy and Research*, 24(4), 473–488. <https://doi.org/10.1023/A:1005583820758>
- World Health Organization (Ed.). (1993). *The ICD-10 classification of mental and behavioural disorders: diagnostic criteria for research*. Geneva: World Health Organization.
- Wunderlich, U., Bronisch, T., & Wittchen, H.-U. (1998). Comorbidity patterns in adolescents and young adults with suicide attempts. *European Archives of Psychiatry and Clinical Neuroscience*, 248(2), 87–95. <https://doi.org/10.1007/s004060050023>
- Yalom, I. D. (1995). *The theory and practice of group psychotherapy* (4th ed.). New York, NY, US: Basic Books.
- Yalom, Irvin D., & Leszcz, M. (2005). *The theory and practice of group psychotherapy* (5th ed). New York: Basic Books.
- Young, J. E. (1999). *Cognitive therapy for personality disorders: A schema-focused approach, 3rd ed.* Sarasota, FL: Professional Resource Press/Professional Resource Exchange. (1999-02395-000).
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2007). *Schema therapy: a practitioner's guide*. Guilford Press.
- Zahra, D., Qureshi, A., Henley, W., Taylor, R., Quinn, C., Pooler, J., ... Byng, R. (2014). The work and social adjustment scale: Reliability, sensitivity and value. *International Journal of Psychiatry in Clinical Practice*, 18(2), 131–138. <https://doi.org/10.3109/13651501.2014.894072>

Appendix 1

Interview

Preliminary Study

Demographic details of age, gender and social economic status (SES) form

Social Anxiety Programme
Screening Interview

Name:

Phone Number:

Mobile Phone:

Address:
.....
.....
.....

Date of Birth:

Occupation:

Occupational Status: Full time Part time
 Retired Job-seeking
 Other

Education (highest level reached i.e. primary, secondary etc.):
.....

Marital Status:

Country of Birth:

Today's Date

History of previous treatment

Are you or have you attended any of the following?

	Details e.g.: through work, group etc., for other disorders	How Long did you attend	When did you Finish
Psychologist			
Counselor			
Psychotherapist			
GP			
Psychiatrist			
Other			

Have you attended or are you attending any specific treatment for social anxiety?

Are you currently taking any medications? _____

How long have you been taking these? _____

If prescribed antianxiety meds how often? e.g.: Xanax, Ativan, Valium, Dalmane, Librium.

- 1) Never
- 2) Some days
- 3) Less than half of the time
- 4) More than half of the time
- 5) Every day

Details of Social Anxiety

When did your Social Anxiety begin?

Have you ever been treated for this or any other mental health problem?

Do you feel you may have an additional mental health problem?

Are you on medication for this or any other problem?

What social situations do you currently have problems in?

Liebowitz Social Anxiety Scale

The questionnaire includes 24 items. Each item consists of a given situation, the rate of anxiety (0 to 3 = none, mild, moderate, severe) and the rate of avoidance (0 to 3 = never, occasionally, often, usually).

Situation	Fear	Avoidance
1. Telephoning in public		
2. Participating in small groups		
3. Eating in public places		
4. Drinking with others in public places		
5. Talking to people in authority		
6. Acting, performing, or giving a talk in front of an audience		
7. Going to a party		
8. Working while being observed		
9. Writing while being observed		
10. Calling someone you don't know very well		
11. Talking with people you don't know very well		
12. Meeting strangers		
13. Urinating in a public bathroom		
14. Entering a room when others are already seated		
15. Being the center of attention		
16. Speaking up at a meeting		
17. Taking a written test		
18. Expressing appropriate disagreement or disapproval to people you don't know very well		
19. Looking at people you don't know very well in the eyes		
20. Giving a report to a group		
21. Trying to pick up someone		
22. Returning goods to a store where returns are normally accepted		
23. Giving an average party		
24. Resisting a high-pressure sales person		

Please rate your ‘physical feelings’ and your fear of experiencing these physical feelings in front of others

Sensations	Intensity	Fear
Racing Heart		
Breathlessness		
Dizziness / lightheadedness		
Difficulty swallowing / lump in throat		
Shakiness		
Blushing		
Nausea – stomach upset		
Sweating		
Shaky voice		
Tearfulness		
Poor concentration		
Blurred vision		
Numbness / tingling sensations		
Muscle tension		
Dry mouth		
Hot flushes / chills		
Chest pain / tightness		
Feeling of unreality		
Others –please list		

Potential questions to consider:

What symptoms bother you most?

When you felt anxious in the situation what symptoms did you notice?

Exclusion Criteria

Screen for the presence of the following:

- Psychotic illness – paranoid, positive symptoms
- Current active addiction problems
- Severe depression (via the BDI)
- Active memory of Trauma (PTSD)
- Panic disorder or Agoraphobia
- Body Dysmorphic Disorder
- Stigma – related to medical illness (e.g., acne) or mental illness (e.g., schizophrenia)
- Autism and Asperger’s Syndrome
- Personality Disorders – Schizoid, Schizotypal & Borderline.

Beliefs, Predictions & Expectations.

Please consider the following questions

What are you afraid will happen in a social situation?

What might people think about you in a social situation?

How noticeable do you think your symptoms of anxiety are?

If people did notice your symptoms of anxiety what would that mean?

Please consider the Behaviours you engage in to make yourself safe

Avoidance Behaviour – What kind of social situations do you ‘refuse’ to enter:

Do you compare yourself to others who you perceived as ‘better’ than you?

Do you do anything to control your symptoms/ improve your performance/ hide your problem? Do you do anything to avoid drawing attention to yourself?

In what ways – if any – do you ‘overcompensate’ for perceived personal deficits?

In what ways –if any – do you engage in ‘excessive’ checking and reassurance seeking?

What variables make your anxiety better or worse?

Aspects related to other people:

Age	<input type="checkbox"/>
Gender	<input type="checkbox"/>
Relationship to you	<input type="checkbox"/>
Attractiveness – physical	<input type="checkbox"/>
Nationality	<input type="checkbox"/>
Level of perceived confidence	<input type="checkbox"/>
Level of perceived aggressiveness	<input type="checkbox"/>
Level of perceived intelligence	<input type="checkbox"/>
Level of perceived wealth	<input type="checkbox"/>
Others – please list	<input type="checkbox"/>

Please Tick appropriate boxes

Aspects of your relationship with other people:

How well other person is known to you	<input type="checkbox"/>
Level of perceived intimacy	<input type="checkbox"/>
History of hostility	<input type="checkbox"/>
Nature of relationship – supervisor, co-worker etc.	<input type="checkbox"/>
Others – please list	<input type="checkbox"/>

Aspects of your feelings:

Tiredness levels	<input type="checkbox"/>
Levels of stress	<input type="checkbox"/>
Familiarity with subject of conversation	<input type="checkbox"/>
Level of prior preparation	<input type="checkbox"/>
Others – please list	<input type="checkbox"/>

Aspects of situation:

Lighting	<input type="checkbox"/>
Formality of situation	<input type="checkbox"/>
Number of people	<input type="checkbox"/>
Your physical position	<input type="checkbox"/>
Alcohol / drug usage	<input type="checkbox"/>
Duration in situation	<input type="checkbox"/>
Activity involved – e.g., eating, writing etc.	<input type="checkbox"/>
Others – please list	<input type="checkbox"/>

Please comment on the Impact that Social Anxiety has had on your life – degree of interference.

How did your social anxiety begin? /What do you think are the cause(s) of your Social Anxiety

Potential questions to consider:

How old were you when you had your first significant episode of Social Anxiety?

What was going on at the time?

When did your Social Anxiety first begin to interfere with your general functioning?

What has been the course of your Social Anxiety over the years – has it improved or deteriorated and if so what factors might have been involved (e.g., changing job, Bullying, rejection experiences)?

What were the original specific events that caused your Social Anxiety to intensify?

Has anyone else in your Family a history of Social Anxiety?

Have you any family members, who have problems with shyness, social anxiety or performance related fears.

Additional Information

Why did you come for treatment now?

Do you believe that recovery is a possibility?

Appendix 2

Preliminary Study Questionnaires

BDI-II

<p>1. Sadness</p> <ul style="list-style-type: none">0 I do not feel sad.1 I feel sad much of the time.2 I am sad all the time.3 I am so sad or unhappy that I can't stand it. <p>2. Pessimism</p> <ul style="list-style-type: none">0 I am not discouraged about my future.1 I feel more discouraged about my future than I used to be.2 I do not expect things to work out for me.3 I feel my future is hopeless and will only get worse. <p>3. Past Failure</p> <ul style="list-style-type: none">0 I do not feel like a failure.1 I have failed more than I should have.2 As I look back, I see a lot of failures3 I feel I am a total failure as a person <p>4. Loss of Pleasure</p> <ul style="list-style-type: none">0 I get as much pleasure as I ever did from the things I enjoy.1 I don't enjoy things as much as I used to.2 I get very little pleasure from things I used to enjoy.3 I can't get any pleasure from the things I used to enjoy. <p>5. Guilty Feelings</p> <ul style="list-style-type: none">0 I don't feel particularly guilty.1 I feel guilty over many things I have done or should have done.2 I feel quite guilty most of the time.3 I feel guilty all of the time.	<p>6. Punishment Feelings</p> <ul style="list-style-type: none">0 I don't feel I am being punished1 I feel I may be punished2 I expect to be punished3 I feel I am being punished <p>7. Self-Dislike</p> <ul style="list-style-type: none">0 I feel the same about myself as ever.1 I have lost confidence in myself2 I am disappointed in myself.3 I dislike myself. <p>8. Self-Criticalness</p> <ul style="list-style-type: none">0 I don't criticize or blame myself more than usual.1 I am more critical of myself than I used to be.2 I criticize myself for all of my faults.3 I blame myself for everything bad that happens. <p>9. Suicidal Thoughts or Wishes</p> <ul style="list-style-type: none">0 I don't have any thoughts of killing myself.1 I have thoughts of killing myself, but I would not carry them out.2 I would like to kill myself.3 I would kill myself if I had the chance. <p>10. Crying</p> <ul style="list-style-type: none">0 I don't cry any more than I used to.1 I cry more than I used to.2 I cry over every little thing.3 I feel like crying, but I can't.
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<p>11. Agitation</p> <p>0 I am no more restless or wound up than usual.</p> <p>1 I feel more restless or wound up than usual.</p> <p>2 I am so restless or agitated that it's hard to stay still.</p> <p>3 I am so restless or agitated that I have to keep moving or doing something.</p> <p>12. Loss of Interest</p> <p>0 I have not lost interest in other people or activities.</p> <p>1 I am less interested in other people or things than before.</p> <p>2 I have lost most of my interest in other people or things.</p> <p>3 It's hard to get interested in anything.</p> <p>13. Indecisiveness</p> <p>0 I make decisions about as well as ever.</p> <p>1 I find it more difficult to make decisions than usual.</p> <p>2 I have much greater difficulty in making decisions than I used to.</p> <p>3 I have trouble making any decisions.</p> <p>14. Worthlessness</p> <p>0 I do not feel I am worthless.</p> <p>1 I don't consider myself as worthwhile and useful as I used to.</p> <p>2 I feel more worthless as compared to other people.</p> <p>3 I feel utterly worthless.</p> <p>15. Loss of Energy</p> <p>0 I have as much energy as ever.</p> <p>1 I have less energy than I used to have.</p> <p>2 I don't have enough energy to do very much.</p> <p>3 I don't have enough energy to do anything.</p> <p>16. Changes in Sleeping Pattern</p> <p>0 I have not experienced any change in my sleeping pattern.</p> <p>1a I sleep somewhat more than usual.</p> <p>1b I sleep somewhat less than usual.</p> <p>2a I sleep a lot more than usual.</p> <p>2b I sleep a lot less than usual</p> <p>3a I sleep most of the day.</p> <p>3b I wake up 1-2 hours early and can't get back to sleep.</p>	<p>17. Irritability</p> <p>0 I am no more irritable than usual.</p> <p>1 I am more irritable than usual.</p> <p>2 I am much more irritable than usual.</p> <p>3 I am irritable all the time.</p> <p>18. Changes in Appetite</p> <p>0 I have not experienced any change in my appetite.</p> <p>1a My appetite is somewhat less than usual.</p> <p>1b My appetite is somewhat greater than usual.</p> <p>2a My appetite is much less than before.</p> <p>2b My appetite is much greater than usual. _____</p> <p>3a I have no appetite at all.</p> <p>3b I crave food all the time.</p> <p>19. Concentration Difficulty</p> <p>0 I can concentrate as well as ever.</p> <p>1 I can't concentrate as well as usual.</p> <p>2 It's hard to keep my mind on anything for very long.</p> <p>3 I find I can't concentrate on anything.</p> <p>20. Tiredness or Fatigue</p> <p>0 I am no more tired or fatigued than usual.</p> <p>1 I get more tired or fatigued more easily than usual</p> <p>2 I am too tired or fatigued to do a lot of the things I used to do.</p> <p>3 I am too tired or fatigued to do most of the things I used to do.</p> <p>21. Loss of Interest in Sex</p> <p>0 I have not noticed any recent change in my interest in sex.</p> <p>1 I am less interested in sex than I used to be.</p> <p>2 I am much less interested in sex now.</p> <p>3 I have lost interest in sex completely.</p>
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BAI

	NOT AT ALL	MILDLY It did not bother me much	MODERATELY It was very unpleasant, but I could stand it	SEVERELY I could barely stand it
1. Numbness or tingling.				
2. Feeling hot.				
3. Wobbliness in the legs.				
4. Unable to relax.				
5. Fear of the worst happening.				
6. Dizzy or light-headed.				
7. Heart pounding or racing.				
8. Unsteady.				
9. Terrified.				
10. Nervous				
11. Feelings of choking.				
12. Hands trembling.				
13. Shaky				
14. Fear of losing control.				
15. Difficulty breathing.				
16. Fear of dying.				
17. Scared.				
18. Indigestion or discomfort in abdomen.				
19. Faint.				
20. Face flushed.				
21. Sweating (not due to heat).				

F.N.E

For each question, please circle a number to indicate the degree to which you feel the statement is characteristic or true of you. The rating scale is as follows:

- 0 = Not at all characteristic or true of me**
- 1 = Slightly characteristic or true of me**
- 2 = Moderately characteristic or true of me**
- 3 = Very characteristic or true of me**
- 4 = Extremely characteristic or true of me**

1	In the company of other people, I am confident about my appearance	0	1	2	3	4
2	I worry that people around me have a low opinion of me	0	1	2	3	4
3	I am afraid that people will not be interested in me once they get to know me	0	1	2	3	4
4	If someone is evaluating me I tend to expect the worst	0	1	2	3	4
5	I am afraid that people will find fault with me	0	1	2	3	4
6	I worry that people don't really care about me	0	1	2	3	4
7	When in the company of other, I feel inferior or inadequate	0	1	2	3	4
8	I am confident that others will think well of me	0	1	2	3	4
9	I am afraid that if I do the wrong thing people won't respect me	0	1	2	3	4
10	When in a social situation, I worry that I may be boring or uninteresting	0	1	2	3	4
11	I worry that people who are close to me will abandon me	0	1	2	3	4
12	I bother about other people's opinion of me	0	1	2	3	4
13	I worry that other people will think that there is something wrong with me	0	1	2	3	4
14	I am confident that I will always have people around me who like me	0	1	2	3	4
15	I am afraid that other people will notice my shortcomings	0	1	2	3	4
16	I am afraid that I may look ridiculous, or make a fool of myself	0	1	2	3	4
17	I worry that I am not a popular person	0	1	2	3	4
18	I am indifferent to criticism	0	1	2	3	4
19	I worry that other people will think I am a nerd	0	1	2	3	4
20	I am afraid that if I make a fool of myself people won't want to know me	0	1	2	3	4
21	I worry about what other people think of me, even when I know it makes no difference	0	1	2	3	4

22	I am upset if I do not please someone	0	1	2	3	4
23	I am confident that other people find me likeable	0	1	2	3	4
24	I am afraid that others will not approve of me	0	1	2	3	4
25	I worry that others will think I am different from other people	0	1	2	3	4
26	If I don't watch what I do or say people will reject me	0	1	2	3	4
27	When talking to someone I worry about what they may be thinking about me	0	1	2	3	4
28	I am unconcerned if I know somebody is judging me	0	1	2	3	4
29	I worry that other people will think I am pathetic	0	1	2	3	4
30	I am afraid that people I know will lose interest in me	0	1	2	3	4
31	I worry that other people will think I am weird	0	1	2	3	4
32	I worry about the kind of impression I make	0	1	2	3	4
33	I am preoccupied with what other people think of me	0	1	2	3	4
34	When I meet new people, I am afraid that they will not like me	0	1	2	3	4
35	I worry that others will think I am not worthwhile	0	1	2	3	4
36	I fear that I will say or do the wrong thing	0	1	2	3	4
37	I am confident that I will make a good impression on people	0	1	2	3	4
38	I worry that other people will think I am stupid	0	1	2	3	4
39	I am afraid that people will not like me unless I try very hard to get on with them	0	1	2	3	4

MATTICK - SPS

For each question, please circle a number to indicate the degree to which you feel the statement is characteristic or true of you. The rating scale is as follows:

0 = Not at all characteristic or true of me

1 = Slightly characteristic or true of me

2 = Moderately characteristic or true of me

3 = Very characteristic or true of me

4 = Extremely characteristic or true of me

1. I become anxious if I have to write in front of other people	0	1	2	3	4
2. I become self-conscious when using public toilets	0	1	2	3	4
3. I can suddenly become aware of my own voice and of others listening to me	0	1	2	3	4
4. I get nervous that people are staring at me as I walk down the street	0	1	2	3	4
5. I fear I may blush when I am with others	0	1	2	3	4
6. I feel self-conscious if I have to enter a room where others are already seated	0	1	2	3	4
7. I worry about shaking or trembling when I am watched by other people	0	1	2	3	4
8. I would get tense if I had to sit facing other people on a bus or a train	0	1	2	3	4
9. I get panicky that others might see me faint, or be sick or ill	0	1	2	3	4
10. I would find it difficult to drink something if in a group of people	0	1	2	3	4
11. It would make me feel self-conscious to eat in front of a stranger at a restaurant	0	1	2	3	4
12. I am worried people will think my behaviour odd	0	1	2	3	4
13. I would get tense if I had to carry a tray across a crowded cafeteria	0	1	2	3	4
14. I worry I'll lose control of myself in front of other people	0	1	2	3	4
15. I worry I might do something to attract the attention of other people	0	1	2	3	4
16. When in an elevator, I am tense if people look at me	0	1	2	3	4
17. I can feel conspicuous standing in a line	0	1	2	3	4
18. I can get tense when I speak in front of other people	0	1	2	3	4
19. I worry my head will shake or nod in front of others	0	1	2	3	4
20. I feel awkward and tense if I know people are watching me	0	1	2	3	4

SIAS

For each question, please circle a number to indicate the degree to which you feel the statement is characteristic or true of you. The rating scale is as follows:

0 = Not at all characteristic or true of me

1 = Slightly characteristic or true of me

2 = Moderately characteristic or true of me

3 = Very characteristic or true of me

4 = Extremely characteristic or true of me

1	I get nervous if I have to speak with someone in authority (teacher, boss)	0	1	2	3	4
2	I have difficulty making eye-contact with others	0	1	2	3	4
3	I become tense if I have to talk about myself or my feelings	0	1	2	3	4
4	I find difficulty mixing comfortably with the people I work with	0	1	2	3	4
5	I find it easy making friends of my own age	0	1	2	3	4
6	I tense up if I meet an acquaintance in the street	0	1	2	3	4
7	When mixing socially, I am uncomfortable	0	1	2	3	4
8	I feel tense if I am alone with just one person	0	1	2	3	4
9	I am at ease meeting people at parties, etc	0	1	2	3	4
10	I have difficulty talking with other people	0	1	2	3	4
11	I find it easy to think of things to talk about	0	1	2	3	4
12	I worry about expressing myself in case I appear awkward	0	1	2	3	4
13	I find it difficult to disagree with another's point of view	0	1	2	3	4
14	I have difficulty talking to an attractive person of the opposite sex	0	1	2	3	4
15	I find myself worrying that I won't know what to say in social situations	0	1	2	3	4
16	I am nervous mixing with people I don't know well	0	1	2	3	4
17	I feel I'll say something embarrassing when talking	0	1	2	3	4
18	When mixing in a group, I find myself worrying I will be ignored	0	1	2	3	4
19	I am tense mixing in a group	0	1	2	3	4
20	I am unsure whether to greet someone I know only slightly	0	1	2	3	4

S B Q

Please circle the word that best describes how often you do the following things when you are anxious in or before a social situation.

Use alcohol to manage anxiety	Always	Often	Sometimes	Never
Try not to attract attention	Never	Sometimes	Often	Always
Make an effort to get your words right	Never	Sometimes	Often	Always
Check that you are coming across well	Always	Often	Sometimes	Never
Avoid eye contact	Never	Sometimes	Often	Always
Talk less	Always	Often	Sometimes	Never
Avoid asking questions	Always	Often	Sometimes	Never
Try to picture how you appear to others	Never	Sometimes	Often	Always
Grip cups or glasses tightly	Never	Sometimes	Often	Always
Position yourself so as not to be noticed	Always	Often	Sometimes	Never
Try to control shaking	Always	Often	Sometimes	Never
Choose clothes that will prevent or conceal sweating	Never	Sometimes	Often	Always
Wear clothes or makeup to hide blushing	Never	Sometimes	Often	Always
Rehearse sentences in your mind	Always	Often	Sometimes	Never
Censor what you are going to say	Always	Often	Sometimes	Never
Blank out or switch off mentally	Never	Sometimes	Often	Always
Avoid talking about yourself	Never	Sometimes	Often	Always
Keep still	Always	Often	Sometimes	Never
Ask lots of questions	Always	Often	Sometimes	Never
Think positive	Never	Sometimes	Often	Always
Stay on edge of groups	Never	Sometimes	Often	Always
Avoid pauses in speech	Always	Often	Sometimes	Never
Hide your face	Never	Sometimes	Often	Always
Try to think about other things	Always	Often	Sometimes	Never
Talk more	Always	Often	Sometimes	Never
Try to act normal	Always	Often	Sometimes	Never
Try to keep tight control of your behaviour	Never	Sometimes	Often	Always
Make an effort to come across well	Always	Often	Sometimes	Never

Social Cognitions Questionnaire

1. Thought never occurs
2. Thought rarely occurs
3. Thought occurs during half of the times when I am nervous
4. Thought usually occurs
5. Thought always occurs when I am nervous

1	2	3	4	5	I will be unable to speak
1	2	3	4	5	I am unlikeable
1	2	3	4	5	I am going to tremble or shake uncontrollably
1	2	3	4	5	People will stare at me
1	2	3	4	5	I am foolish
1	2	3	4	5	People will reject me
1	2	3	4	5	I will be paralysed with fear
1	2	3	4	5	I will drop or spill things
1	2	3	4	5	I am going to be sick
1	2	3	4	5	I am inadequate
1	2	3	4	5	I will babble or talk funny
1	2	3	4	5	I am inferior
1	2	3	4	5	I will be unable to concentrate
1	2	3	4	5	I will be unable to write properly
1	2	3	4	5	People are not interested in me
1	2	3	4	5	People won't like me
1	2	3	4	5	I am vulnerable
1	2	3	4	5	I will sweat/perspire
1	2	3	4	5	I am going red
1	2	3	4	5	I am weird/different
1	2	3	4	5	People will see I am nervous
1	2	3	4	5	People think I am boring

When you feel anxious how much do you believe each thought to be true. On the **RIGHT** hand side of the form please rate each thought by choosing a number from the scale and circling it where 0 = I do not believe this thought and 100 = I am completely convinced this thought is true. For example, if for the first item “I will be unable to speak” you are completely convinced this thought is true then circle 100 on the right of this statement.

I will be unable to speak	0	10	20	30	40	50	60	70	80	90	100
I am unlikeable	0	10	20	30	40	50	60	70	80	90	100
I am going to tremble or shake uncontrollably	0	10	20	30	40	50	60	70	80	90	100
People will stare at me	0	10	20	30	40	50	60	70	80	90	100
I am foolish	0	10	20	30	40	50	60	70	80	90	100
People will reject me	0	10	20	30	40	50	60	70	80	90	100
I will be paralysed with fear	0	10	20	30	40	50	60	70	80	90	100
I will drop or spill things	0	10	20	30	40	50	60	70	80	90	100
I am going to be sick	0	10	20	30	40	50	60	70	80	90	100
I am inadequate	0	10	20	30	40	50	60	70	80	90	100
I will babble or talk funny	0	10	20	30	40	50	60	70	80	90	100
I am inferior	0	10	20	30	40	50	60	70	80	90	100
I will be unable to concentrate	0	10	20	30	40	50	60	70	80	90	100
I will be unable to write properly	0	10	20	30	40	50	60	70	80	90	100
People are not interested in me	0	10	20	30	40	50	60	70	80	90	100
People won't like me	0	10	20	30	40	50	60	70	80	90	100
I am vulnerable	0	10	20	30	40	50	60	70	80	90	100
I will sweat/perspire	0	10	20	30	40	50	60	70	80	90	100
I am going red	0	10	20	30	40	50	60	70	80	90	100
I am weird/different	0	10	20	30	40	50	60	70	80	90	100
People will see I am nervous	0	10	20	30	40	50	60	70	80	90	100
People think I am boring	0	10	20	30	40	50	60	70	80	90	100

Appendix 3

Ethical Approval Letters– Preliminary Study



Mater Misericordiae
University Hospital

Sisters of Mercy

Ospidéal Ollscoile
Mater Misericordiae

Siuracha na Trícaire



Eccles Street, Dublin 7, Ireland.

Tel: +353 1 8032000 Fax: +353 1 8032404 Email: mmli@mater.ie Web: www.mater.ie

Not for prescription purposes

Mr Odhran McCarthy
Senior Clinical Psychologist
Department of Adult Psychiatry
Mater Misericordiae University Hospital
63 Eccles Street
Dublin 7

27th May 2009

Our Ref: 1/378/1245

RE: An audit evaluation of psychometric data collected since 1998 from clients attending a fourteen-week social anxiety programme within the Department of Adult Psychiatry in the Mater Hospital

Dear Mr McCarthy

The Mater Misericordiae University Hospital and Mater Private Hospital Research Ethics Committee at its meeting of Wednesday 27th May 2009 discussed the above research study to be carried out at the Mater Misericordiae University Hospital (MMUH).

Approval to proceed with this research study at the MMUH is granted; this approval is valid until 27th May 2011.

Given that this is a retrospective audit involving information from patient data (with all identifiable personal information removed) that you have already collected as part of normal treatment the committee felt that individual consent is not deemed necessary for the purpose of this research and as such the Opt Out Form and Information Sheet for Participants is not required for this research.

It is your responsibility to adhere to the approved study protocol and ensure that all investigators involved with the research only use the approved documents without deviation (unless they have been approved by the Research Ethics Committee), to submit annual reports setting out the progress of the research and to notify the Research Ethics Committee when the research is concluded.

Yours sincerely

Dr Peter McKenna
Vice-Chairperson Research Ethics Committee

c.c. Dr Brendan Kelly, Consultant Psychiatrist and Senior Lecturer, Department of Adult Psychiatry

Commitment to Excellence

Directors: Mr. Jona Morgan (Chairman), Fr. Kevin Doran, Mr. Eamon Clark, Mr. Don Mahony, Sr. Margherita Rock, Mr. Martin Cowley, Mr. Kevin O'Malley, Mrs. Anne Carrigg, Mr. Brian Conlan, Sr. Eugene Nolan, Dr. Anthony Clarke, Mr. Kevin Murphy, Dr. Nuala Healy

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Coláiste na Tríonóide, Baile Átha Cliath
Trinity College Dublin
Ollscoil Átha Cliath | The University of Dublin

F.A.O. David Hevey

School of Psychology Research Ethics Committee

18th April 2013

Dear David,

I am pleased to inform you that your application entitled “Audit of Cognitive behavioural group therapy (CBGT) for social anxiety disorder” has been approved by the School of Psychology Research Ethics Committee.

Please note that you will be required to submit a completed Project Annual Report Form on each anniversary of this approval, until such time as an End of Project Report Form is submitted upon completion of the research. Copies of both forms are available for download from the Ethics section of the School website.

Adverse events associated with the conduct of this research must be reported immediately to the Chair of the Ethics Committee.

Yours sincerely,

Richard Carson
Chair,
School of Psychology Research Ethics Committee

Scoil na Siceolaíochta

Dámh na nEolaíochtaí Sóisialta agus Daonna,
Áras an Phiarsaigh,
Coláiste na Tríonóide,
Baile Átha Cliath,
Ollscoil Átha Cliath,
Baile Átha Cliath 2, Éire.

School of Psychology

Faculty of Arts, Humanities and Social Sciences,
Trinity College Dublin,
The University of Dublin,
Dublin 2, Ireland.

+353 1 896 1886

psychology@tcd.ie
www.tcd.ie/psychology

Appendix 4

Participant Information Sheet - Primary Study

Participant Information Sheet

Dear Participant,

You are invited to take part in a research project that is been conducted by Mr Odhran Mc Carthy (Senior Clinical Psychologist) under the supervision of Prof. David Hevey, School of Psychology, Trinity College Dublin.

It is important that you read the following information in order to make an informed decision and if you have any questions about any aspects of the study that are not clear to you, do not hesitate to ask me.

Background and Purpose

The proposed study will examine the effects of the group based Social Anxiety Programme. The programme provides a mixture of cognitive behavioural therapy (CBT) interventions, exposure work and social skills training (in a group setting) to participants.

Why I have been invited to take part?

You have been invited to take part in this research project as you are on our waiting list as an applicant to our social anxiety programme. If you choose to take part in this study, you will be asked to complete some pen and paper (or online) questionnaires asking you to think about your levels of anxiety, coping and stress.

What happens if I take part?

If you agree to participate in the research project you will be asked to consent to the completion of a questionnaire pack before and after the programme. In addition, half of the participants will be asked to complete the same series of questionnaires at one additional time point 14 weeks prior to commencing our programme.

The questionnaire pack takes approximately 45 minutes to complete. Seven of these we currently use routinely with our programme to assess and monitor its effectiveness.

Every 40 suitable applicants will be randomly assigned into either

- (a) Immediate group treatment or
- (b) delayed group treatment.

Group (b) will have to wait their turn for the group treatment – an additional 14 weeks – and they are offered the group treatment.

Disadvantages or risks in taking part in the research study

There are no known risks or side effects to you offering your consent

Research Ethics Committee Approval

This research study has been approved by the Mater Misericordiae Hospital Research Ethics Committee and Trinity College Dublin School of Psychology Research Ethics Committee.

What will happen to the results of the study?

The information from the data collected will be used to formally evaluate the effectiveness of our programme (in a more robust way than previous) and the impact of the assessed moderators on the effectiveness of the social anxiety programme. In reporting the results of the study, the data collected may be used and reported in an article for publication. However, all personal identifying information will be removed or edited in order to maintain anonymity

Confidentiality

All the information supplied for the research project will be treated in the strictest of confidence. That means only I or my supervisor will have access to your personal details. Should the study be published all personal identifying information will be removed or edited in order to maintain your anonymity? However, I will be legally obliged to disclose any information you share that may breach the laws of the Republic of Ireland. Your data will be stored in a secure filing system and on a password protected computer for 10 years in accordance with ethical requirements. Under the Freedom of Information (Amendment) Act 2003 you have the legal right to access official records holding your data within the School of Psychology, Trinity College Dublin and the right to have personal information held on them corrected or updated where such information is incomplete, incorrect or misleading.

Voluntary Participation:

Taking part in this research study is entirely up to you. If you agree to take part, you will be required to sign a consent form. However, even if you do decide to take part, you are free to withdraw at any time (prior to publication) and without giving a reason. This will not affect the standard of care you will receive. We will not be upset if you decide not to take part. Your involvement in the Social Anxiety Programme will not be dependent on your involvement in the research project. You can refuse to take part in the research project and you will still be eligible to attend the social anxiety programme. Moreover, your potential involvement in our follow-up support group will not be dependent on your involvement in the research project.

If I decide not to take part?

If you decide not to take part, you remain entitled to attend both our Social Anxiety Programme and our follow-up support group.

Further Information

We very much hope that you will agree to participate in the research. If you require any assistance or have any questions about the research study, please feel free to contact me.

Mr. Odhran Mc Carthy

Senior Clinical Psychologist,

63 Eccles Street,

Dublin 7.

email: omccarthy@mater.ie or info.socialanxietyireland@gmail.com

Ph: 01-8032855

Fax: 8309323

Or my supervisor, Dr. David Hevey

Prof. David Hevey,

School of Psychology,

Áras an Phiarsaigh,

Trinity College Dublin,

Dublin 2.

e-mail: heveydt@tcd.ie

phone : (01) 8962406

Thank you very much for taking part in this research study

Appendix 5

Consent Form for Participants – Primary Study

Consent Form for Participants

Your Name: _____

I confirm that I have read and understood the participant information leaflet for the above research study and received an explanation of the nature, purpose, duration, and foreseeable effects and risks of the research study and what my involvement will be.

I understand that I am being invited to participate due to my participation in the Social Anxiety programme. I understand that my participation in this study will involve completing questionnaires.

I have had time to consider whether to take part in this research study. My questions have been answered satisfactorily and I have received a copy of the Participant Information Leaflet

I understand that my participation is voluntary (my choice) and that I am free to withdraw at any time

I also understand that the information collected about me will be not be used for anything other than this research project. It will be held confidentially, in a locked and encrypted file or in a password protected computer so only the researcher and their supervisor will have access to it. According to the Data Protection Act, it is my right to have access to any information related to me, upon request. If any portion of the study is published or presented in seminars or conferences, my name or other personally identifying information will not be used.

I have read and understand the above. I consent to participate in this study.

.....

Name of Participant (in block letters	Date	Signature
---------------------------------------	------	-----------

.....

Name of Person taking consent	Date	Signature
-------------------------------	------	-----------

(If different from principal researcher)

.....

Principal Researcher	Date	Signature
----------------------	------	-----------

Consent Form for Participants

1 copy for patient, 1 copy for researcher, 1 copy to be inserted in participants notes

Researchers:

- Mr. Odhran Mc Carthy, Senior Clinical Psychologist, Director of Social Anxiety Ireland, C/O Department of Adult Psychology, 63 Eccles Street, Dublin 7.
- Prof. David Hevey, School of Psychology, Áras an Phiarsaigh, Trinity College Dublin, Dublin 2.

Appendix 6

Ethical Approval Letter TCD – Primary Study



F.A.O. Odhran McCarthy

School of Psychology Research Ethics Committee

9th July, 2015

Dear Odhran,

Following receipt of amendments, I am pleased to inform you that your application entitled "Cognitive behavioural group therapy (CBGT) for social anxiety disorder" has been approved by the School of Psychology Research Ethics Committee.

Please note that you will be required to submit a completed Project Annual Report Form on each anniversary of this approval, until such time as an End of Project Report Form is submitted upon completion of the research. Copies of both forms are available for download from the Ethics section of the School website.

Adverse events associated with the conduct of this research must be reported immediately to the Chair of the Ethics Committee.

Yours sincerely,

Richard Carson
Chair,
School of Psychology Research Ethics Committee

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Appendix 7

Screening Interview – Primary Study

Social Anxiety Programme Screening Interview

Demographic Data

Name:

Phone Number:

Mobile Phone:

Address:
.....
.....
.....

Date of Birth: **Age:**

Occupation:

Occupational Status: Full time Part time
Retired Job-seeking
Other

How are you supporting yourself?

Education (highest level reached i.e. primary, secondary etc.):

Marital Status

1. Married or living with someone as if married	<input type="checkbox"/>
2. Widowed	<input type="checkbox"/>
3. Divorced or annulled	<input type="checkbox"/>
4. Separated	<input type="checkbox"/>
5. Never married	<input type="checkbox"/>

Country of Birth:

Today's Date:

Treatment History

When was the first time you saw someone for emotional or psychiatric problems?

Are you or have you attended any of the following?

	Intervention type?	How Long did you attend	When did you Finish
Psychologist			
Counsellor			
Psychotherapist			
GP			
Psychiatrist			
Other			

Have you attended or are you attending any specific treatment for social anxiety?

Are you currently taking any medications?

Yes ____ No ____

If yes, list medications, dose and frequency

Name	Dose	Frequency

How long have you been taking these? _____

Hospitalization History

Have you ever been a patient in a psychiatric hospital?

Yes ____ No ____

If yes, what was that for? (List psychiatric diagnoses)

Name

How many times?

Have you ever been in a hospital for the treatment of a medical problem?

Yes ____ No ____

If yes, what was that for?

.....
.....

How many times?

How has your physical health been? Have you had or have currently any medical problems?

Yes ____ No ____

If yes, list medical diagnoses.

Name

Inclusion Criteria

Social Phobia

Initial Inquiry:

1a. Currently, in social situations where you might be observed or evaluated by others or when you are meeting new people, do you feel fearful, anxious or nervous?

Yes ____ No ____

1b. Currently, are you overly concerned that you may do and/or say something that might embarrass or humiliate yourself in front of others, or that others may think badly of you?

Yes ____ No ____

If NO to 1a. and 1b., continue to 1c.

If YES to either 1a. or 1b., skip to 2.

1c. Have you ever been anxious in a social situation or were you ever overly concerned about embarrassing or humiliating yourself in front of others?

Yes ____ No ____

If NO, continue to 2.

When was the most recent time this occurred?

2. I am going to give you a list of situations of this type. I want you to record how you would feel in each situation and to what extent you avoid these situations.

For each situation, make a separate rating for the level of fear and the degree of avoidance using the following scale.

0-----1-----2-----3-----4-----5-----6-----7-----8

No fear Mild fear Moderate fear Severe fear Very severe fear
 Never avoid Rarely avoids Sometimes avoid Often avoids Always avoids

Situation	Fear	Avoidance
1. Telephoning in public		
2. Participating in small groups		
3. Eating in public places		
4. Drinking with others in public places		
5. Talking to people in authority		
6. Acting, performing, or giving a talk in front of an audience		
7. Going to a party		
8. Working while being observed		
9. Writing while being observed		
10. Calling someone you don't know very well		
11. Talking with people you don't know very well		
12. Meeting strangers		
13. Urinating in a public bathroom		
14. Entering a room when others are already seated		
15. Being the centre of attention		
16. Speaking up at a meeting		
17. Taking a written test		
18. Expressing appropriate disagreement or disapproval to people you don't know very well		
19. Looking at people you don't know very well in the eyes		
20. Giving a report to a group		
21. Trying to pick up someone		
22. Returning goods to a store where returns are normally accepted		
23. Giving an average party		
24. Resisting a high-pressure sales person		

If no evidence of fear /avoidance is obtained - END Interview! Otherwise proceed.

11. Current Episode

Now I want to ask you a series of questions about your current anxiety in social situations.

Complete for current episode of social anxiety that is potentially of clinical severity.

A. List most problematic situations

Problematic Situations

1. What were you concerned will happen in these situations?

2. Do you encounter the anxiety nearly every time you encounter.....?

Yes ____ No ____

3. Does anxiety occur as soon as you enter the situation or are about to enter the situation, or is the anxiety sometimes delayed or unexpected?

Immediate ____ Delayed ____

4a. Are you anxious about these situations because you are afraid that you will have an unexpected panic attack?

Yes ____ No ____

If YES

4b. Other than when you were exposed to, have you experienced an unexpected rush of fear/ anxiety

Yes ____ No ____

If YES, **where has this occurred?**

If YES to 4a. or 4b., consider whether fear could be subsumed into panic disorder.

5. Panic Attack Symptoms (*in italics*)

Do you experience, when you encounter,

0-----1-----2-----3-----4-----5-----6-----7-----8

None Mild Moderate Severe Very severe

	Intensity
<i>Palpitations, pounding heart, increased heart rate</i>	
<i>Shortness of breath, or smothering sensation</i>	
<i>Dizziness, unsteady feelings, lightheadedness</i>	
†Difficulty swallowing / lump in throat	
<i>Trembling or Shaking</i>	
<i>Feelings of choking</i>	
<i>Nausea or stomach distress</i>	
<i>Sweating</i>	
† Shaky voice	
†Tearfulness	
†Poor concentration	
†Blurred vision	
<i>Numbness or tingling sensations</i>	
†Muscle tension	
†Dry mouth	
<i>Chills, Hot flushes or Blushing</i>	
<i>Chest pain or discomfort</i>	
<i>Feeling of unreality or being detached from self</i>	
<i>*Fears of dying</i>	
<i>*Fears of going crazy</i>	
<i>*Fears of doing something uncontrolled</i>	
Others –please list	

- * Key features of panic attacks
- † Additional concerns in social anxiety
- Symptoms in italics are common concerns to both social anxiety and panic disorder

How noticeable do you think your symptoms of anxiety are?

If people did notice your symptoms of anxiety what would that mean?

Do you do anything to control your symptoms/ improve your performance/ hide your problem? Do you do anything to avoid drawing attention to yourself?

What variables make your anxiety better or worse?

Aspects related to other people:

Age	<input type="text"/>
Gender	<input type="text"/>
Relationship to you	<input type="text"/>
Attractiveness – physical	<input type="text"/>
Nationality	<input type="text"/>
Level of perceived confidence	<input type="text"/>
Level of perceived aggressiveness	<input type="text"/>
Level of perceived intelligence	<input type="text"/>
Level of perceived wealth	<input type="text"/>

Others?

.....

.....

Aspects of your relationship with other people:

How well other person is known to you?	<input type="text"/>
Level of perceived intimacy	<input type="text"/>
History of hostility	<input type="text"/>
Nature of relationship – supervisor, co-worker etc	<input type="text"/>

Others?

.....

.....

Aspects of your feelings:

Tiredness levels	<input type="text"/>
Levels of stress	<input type="text"/>
Familiarity with subject of conversation	<input type="text"/>
Level of prior preparation	<input type="text"/>

Others?

.....

.....

Aspects of situation:

Lighting	<input type="text"/>
Formality of situation	<input type="text"/>
Number of people	<input type="text"/>
Your physical position	<input type="text"/>
Alcohol / drug usage	<input type="text"/>
Duration in situation	<input type="text"/>
Activity involved – e.g., eating, writing etc.	<input type="text"/>

Others?

.....

.....

6a. In what ways have these fears interfered with your life (e.g., daily routine, job, social activities)? How much are you bothered by these fears?

6b. Has your current job or educational attainment been influenced by the fears?

Rate interference _____ Distress _____

0-----1-----2-----3-----4-----5-----6-----7-----8

None Mild Moderate Severe Very severe

7a. When did anxiety about begin to be a problem in that it caused a lot of distress or interference in your life? (Note, If client is vague in date of onset, attempt to ascertain more specific information, e.g., by linking onset to objective life events)

.....
.....
.....
.....
.....
.....

Date of Onset: _____ Month _____ Year

7b. Can you recall anything that might have contributed to you feeling anxious about social situations? (What do you think are the cause(s) of your Social Anxiety)

8. Besides this current period of anxiety in social situations, have there been other, separate periods in time before this when you have had the same problems?

Yes ____ No ____

If YES, the clinician should consider inquiring about past episodes, particularly if the clinician determines that this information maybe be important for clinical or diagnostic reasons

Date(s) of prior episodes:

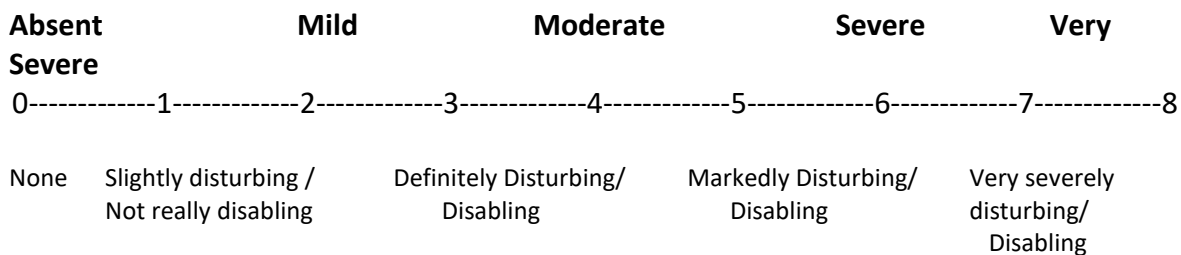
Just before you began having these fears, were you taking any drugs, caffeine, diet pills or other medications?

How much coffee, tea or caffeinated soft drinks (e.g., coke) do you drink a day?

Just before your fears began, were you physically ill?

If yes, what did you doctor say was wrong?

Clinician's Rating



Panic Disorder (Screen)

Initial Inquiry:

1a. Do you currently have times when you feel a sudden rush of intense fear or discomfort?

Yes ____ No ____

If YES, skip to 2a

1b. If NO, Have you ever had times when you have felt a sudden rush of intense fear or discomfort?

Yes ____ No ____

If YES, **When was the most recent time this occurred?**

If YES to either 1a. or 1b or uncertain, continue inquiry into Panic Disorder (1).
Otherwise skip to **Agoraphobia**

Agoraphobia (SCREEN)

Initial Inquiry:

1a. Do you currently feel panicky in any situation or avoid them because you might feel panicky?

Yes ____ No ____

If YES, skip to situation ratings

1b. If NO, Have you ever felt panicky in any situation or avoid them because of panic?

Yes ____ No ____

If NO, continue to 1c

When was the most recent time this occurred?

1c. Are you currently apprehensive about entering situations due to fear that you may develop such symptoms as diarrhoea, vomiting, dizziness, etc.?

Yes ____ No ____

If YES, **What symptoms do you fear will arise in these situations?**

If NO all of the above and no history of Panic Disorder, continue on to PTSD (SCREEN)
Otherwise continue to enquire about Agoraphobia (2)

PTSD/ Acute Stress Disorder (SCREEN)

Initial Inquiry:

1a. Have you ever experienced or witnessed a traumatic or life- threatening event such as an assault, rape, seeing someone badly injured or killed, combat accidents or natural or man-made disasters?

Yes ____ No ____

If YES, specify nature and dates of event(s); specify date of trauma ended if the event persisted (e.g., ongoing physical abuse)

1b. Do you recall any events of this nature occurring when you were a child?

Yes ____ No ____

If YES, specify nature and dates of event(s); specify date of trauma ended if the event persisted (e.g., ongoing physical abuse)

If NO to both 1a. or 1b move on to Mania/Cyclothymia
Otherwise continue to enquire about PTSD (3)

Mania/Cyclothymia (SCREEN)

Initial Inquiry:

1a. Have you ever experienced a period of several days or more when you felt unusually or excessively high or irritable? This is very different from being in good mood or feeling the effects of a substance. What I mean is a period where you felt persistently or abnormally high or irritable, perhaps with such things as a decreased need for sleep, racing thoughts and distractibility, and an unusual increase in the numbers of activities you got involved in?

Yes ____ No ____

If YES, **When was the most recent time this occurred?**

How long did this period last?

If YES to 1a. or uncertain, continue inquiry into Mania/Cyclothymia (4).
Otherwise skip to Major Depressive Disorder

Major Depressive Episode (SCREEN)

Initial Inquiry:

1a. Currently, have you been feeling depressed, sad, empty, or have you lost interest or pleasure in almost all of your usual activities?

Depressed Yes ____ No ____

Lost of Interest Yes ____ No ____

1b. Currently, have other people commented to you that you appear down or tearful or that you seem less interested in your usual activities?

Depressed Yes ____ No ____

Lost of Interest Yes ____ No ____

If No, to 1a. and 1b., continue to 1c.

If YES, to either 1a. or 1b. skip to CURRENT EPISODE

1c. Have you ever experienced a period of two weeks or more when you felt depressed, sad, empty, lost interest or pleasure in almost all of your usual activities?

Depressed Yes ____ No ____

Loss of Interest Yes ____ No ____

If YES, **When was the most recent time this occurred?**

If YES to either 1a. or uncertain, continue inquiry into Major Depressive Disorder(s).
Otherwise skip to next disorder Alcohol Abuse/Dependence (SCREEN)

Alcohol Abuse/Dependence (SCREEN)

Initial Inquiry:

1a. Currently, how much alcohol do you typically drink? (Specify number, type, and the amount of alcoholic beverages used and indicate time period; e.g., 'three 12 oz. Beers per week)

If client currently drinks alcohol skip to 2.

1b. Has there ever been a time in your life when you drank alcohol?

Yes ____ No ____

If YES

How much alcohol did you typically drink? (Specify number, type, and the amount of alcoholic beverages used and indicate time period; e.g., 'three 12 oz. Beers per week)

When was the most recent period of time when you drank?

If no evidence of current (or past) alcohol abuse, skip to Substance Abuse/Dependence (SCREEN)
Otherwise continue inquiry into Alcohol Abuse/Dependence (SCREEN) (6)

Substance Abuse/Dependence (SCREEN)

Initial Inquiry:

1a. Currently, how much caffeine do you typically drink? (Specify number, type, and the amount of caffeinated beverages used and indicate time period; e.g., 'three cups of coffee per day')

1b. Has your caffeine use caused you any difficulties (e.g., anxiety, sleep difficulties, physical difficulties such as GI disturbances, agitation, headaches?).

Yes _____ No _____
If YES, specify

2. Use of other substances

2a. Besides alcohol or caffeine, have you ever used any other substances such as marijuana or cocaine?

Yes _____ No _____

2b. Have you ever used certain prescription or non-prescription medications (e.g., anxiolytics, cough medicines) in excessive amounts or at a frequency or dosage that was higher than that prescribed by your doctor?

Yes _____ No _____

If no evidence of caffeine or other substance abuse, skip to Non-organic Psychosis / Conversion symptoms.
Otherwise continue inquiry into Substance Abuse/Dependence (7)

Non-organic Psychosis / Conversion symptoms

1. Have you ever experienced a loss or change in your physical functioning such as paralysis, seizures, or sever pain.

Yes ____ No ____

If YES, specify details and time periods:

2. Has there ever been a period of time when you had strange or unusual experiences such as:

a. Hearing or seeing things that other people didn't notice?

Yes ____ No ____

b. Hear voices or conversations when no one was around?

Yes ____ No ____

c. Visions that no one else saw?

Yes ____ No ____

d. had the feeling that something odd was going on around you, that people were doing things to test you or antagonise or hurt you so that you felt you had to be on guard constantly?

Yes ____ No ____

If YES to any of the above, specify details and time periods:

Body dysmorphic Disorder

Some people are very bothered by the way they look. Is this a problem for you?

Yes ____ No ____

If yes, **tell me about it.**

How often do you think about it? (Think about a typical day)

If unclear – **How much does this bother you? What effect has this had on your life (has it made it hard for you to do your work or be with friends?)**

How old were you when you first started having these concerns?

Finally, ask interviewee the abbreviated form of the Personality – SCID 11
Questionnaires

1-8 item – Paranoid PD

9-19 items – Schizotypal PD

20-25 items – Schizoid PD

26-40 items – Antisocial PD

Further enquiry needs to happen – using SCID 2 – of any items endorsed yes

Questionnaire

These questions are about the kind of person you are – that is how you have usually felt or behaved over the past several years. Mark YES if the question completely or mostly applies to you, or mark NO if it does not apply to you. If you do not understand a question or are not sure of your answer, ask your psychologist for assistance.

#	Question	Y	N
1	Do you often have to keep an eye out to stop people from using you or hurting you?		
2	Do you spend a lot of time wondering if you can trust your friends or the people you work with?		
3	Do you find that it is best not to let other people know much about you because they will use it against you?		
4	Do you often detect hidden threats or insults in things people say or do?		
5	Are you the kind of person who holds grudges or takes a long time to forgive people who have insulted or slighted you?		
6	Are there many people you can't forgive because they did or said something to you a long time ago?		
7	Do you often get angry or lash out when someone criticizes or insults you in some way?		
8	Have you often suspected that your spouse or partner has been unfaithful?		
9	When you are out in public and see people talking, do you often feel that they are talking about you?		
10	Do you often get the feeling that things that have no special meaning to most people are really meant to give you a message?		
11	When you are around people, do you often get the feeling that you are being watched or stared at?		
12	Have you ever felt you could make things happen just by making a wish or thinking about them?		
13	Have you had personal experience with the supernatural?		
14	Do you believe you have a 'sixth sense' that allows you to know and predict things that others can't?		
15	Does it often seem that objects or shadows are really people or animals or that noises are actually people's voices?		
16	Have you had the sense that some person or force is around you, even though you cannot see anyone?		
17	Do you often see auras or energy fields around people?		
18	Are there few people that you're really close to outside your immediate family?		
19	Do you often feel nervous when you are with other people?		
20	It is NOT important to you whether you have any close relationships?		
21	Would you almost always rather do things alone than with other people?		

22	Could you be content without ever been sexually involved with anyone?		
23	Are there very few things that give you pleasure?		
24	Does it NOT matter to you what people think of you?		
25	Do you find that nothing makes you very happy or very sad?		
26	Before you were 15, would you bully or threaten other kids		
27	Before you were 15, would you start fights?		
28	Before you were 15, did you hurt or threaten someone with a weapon, like a bat, brick, broken bottle, knife or gun?		
29	Before you were 15, did you deliberately torture someone or cause someone physical pain or suffering?		
30	Before you were 15, did you torture or hurt animals on purpose?		
31	Before you were 15, did you rob, mug or forcibly take something from someone by threatening him or her?		
32	Before you were 15, did you force someone to have sex with you, to get undressed in front of you, or to touch you sexually		
33	Before you were 15, did you set fire?		
34	Before you were 15, did you deliberately destroy things that weren't yours?		
35	Before you were 15, did you break into houses, other buildings or cars?		
36	Before you were 15, did you lie a lot or 'con' other people/		
37	Before you were 15, did you sometimes steal or shoplift things or forge someone's signature?		
38	Before you were 15, did you run away from home and stay away overnight?		
39	Before you were 13, did you often stay out very late, long after the time you were supposed to be home?		
40	Before you were 13, did you often skip school?		

Appendix 8

Screening Interview Schedule – Primary Study

Screening Interview Schedule

Screening		Number	Percentage
1	AP	17	10.7
2	AP	3	1.9
3	AP	31	19.5
4	AP	3	1.9
5	AP	26	16.4
6	AP	3	1.9
7	AP	19	11.9
8	AP	20	12.6
9	PiCT	9	5.7
10	PiCT	6	3.8
11	PiCT	3	1.9
12	PiCT	3	1.9
13	PiCT	4	2.5
14	PI	12	7.5
Total		159	100

Note: AP = Assistant Psychologist; PiCT = Psychologist in Clinical Training; PI = Primary Investigator

Appendix 9

Primary and Secondary Outcome Questionnaires - Primary Study

Social Interaction Anxiety Scale - SIAS

Instructions: For each question, please circle a number to indicate the degree to which you feel the statement is characteristic or true of you. The rating scale is as follows:

- 0 = Not at all characteristic or true of me**
- 1 = Slightly characteristic or true of me**
- 2 = Moderately characteristic or true of me**
- 3 = Very characteristic or true of me**
- 4 = Extremely characteristic or true of me**

		Not at all	Slightly	Moderately	Very	Extremely
1	I get nervous if I have to speak with someone in authority (teacher, boss)	0	1	2	3	4
2	I have difficulty making eye-contact with others	0	1	2	3	4
3	I become tense if I have to talk about myself or my feelings	0	1	2	3	4
4	I find difficulty mixing comfortably with the people I work with	0	1	2	3	4
5	I find it easy making friends of my own age	0	1	2	3	4
6	I tense up if I meet an acquaintance in the street	0	1	2	3	4
7	When mixing socially, I am uncomfortable	0	1	2	3	4
8	I feel tense if I am alone with just one person	0	1	2	3	4
9	I am at ease meeting people at parties, etc	0	1	2	3	4
10	I have difficulty talking with other people	0	1	2	3	4
11	I find it easy to think of things to talk about	0	1	2	3	4
12	I worry about expressing myself in case I appear awkward	0	1	2	3	4
13	I find it difficult to disagree with another's point of view	0	1	2	3	4
14	I have difficulty talking to an attractive person of the opposite sex	0	1	2	3	4
15	I find myself worrying that I won't know what to say in social situations	0	1	2	3	4
16	I am nervous mixing with people I don't know well	0	1	2	3	4
17	I feel I'll say something embarrassing when talking	0	1	2	3	4
18	When mixing in a group, I find myself worrying I will be ignored	0	1	2	3	4
19	I am tense mixing in a group	0	1	2	3	4
20	I am unsure whether to greet someone I know only slightly	0	1	2	3	4

Social Phobia Scale - SPS

For each question, please circle a number to indicate the degree to which you feel the statement is characteristic or true of you. The rating scale is as follows:

- 0 = Not at all characteristic or true of me**
- 1 = Slightly characteristic or true of me**
- 2 = Moderately characteristic or true of me**
- 3 = Very characteristic or true of me**
- 4 = Extremely characteristic or true of me**

		Not at all	Slightly	Moderately	Very	Extremely
1	I become anxious if I have to write in front of other people	0	1	2	3	4
2	I become self-conscious when using public toilets	0	1	2	3	4
3	I can suddenly become aware of my own voice and of others listening to me	0	1	2	3	4
4	I get nervous that people are staring at me as I walk down the street	0	1	2	3	4
5	I fear I may blush when I am with others	0	1	2	3	4
6	I feel self-conscious if I have to enter a room where others are already seated	0	1	2	3	4
7	I worry about shaking or trembling when I am watched by other people	0	1	2	3	4
8	I would get tense if I had to sit facing other people on a bus or a train	0	1	2	3	4
9	I get panicky that others might see me faint, or be sick or ill	0	1	2	3	4
10	I would find it difficult to drink something if in a group of people	0	1	2	3	4
11	It would make me feel self-conscious to eat in front of a stranger at a restaurant	0	1	2	3	4
12	I am worried people will think my behaviour odd	0	1	2	3	4
13	I would get tense if I had to carry a tray across a crowded cafeteria	0	1	2	3	4
14	I worry I'll lose control of myself in front of other people	0	1	2	3	4
15	I worry I might do something to attract the attention of others	0	1	2	3	4
16	When in an elevator, I am tense if people look at me	0	1	2	3	4
17	I can feel conspicuous standing in a line	0	1	2	3	4
18	I can get tense when I speak in front of other people	0	1	2	3	4
19	I worry my head will shake or nod in front of others	0	1	2	3	4
20	I feel awkward and tense if I know people are watching me	0	1	2	3	4

Social Phobia Inventory - SPIN

Instructions: Please check how much the following problems have bothered you during the past week. Mark only one box for each problem and be sure to answer all items.

		Not at all	A little bit	Somewhat	Very Much	Extremely
1	I am afraid of people in authority.	0	1	2	3	4
2	I am bothered by blushing in front of people.	0	1	2	3	4
3	Parties and social events scare me.	0	1	2	3	4
4	I avoid talking to people I don't know.	0	1	2	3	4
5	Being criticized scares me a lot.	0	1	2	3	4
6	Fear of embarrassment causes me to avoid doing things or speaking to people.	0	1	2	3	4
7	Sweating in front of people causes me distress.	0	1	2	3	4
8	I avoid going to parties.	0	1	2	3	4
9	I avoid activities in which I am the centre of attention.	0	1	2	3	4
10	Talking to strangers scares me.	0	1	2	3	4
11	I avoid having to give speeches.	0	1	2	3	4
12	I would do anything to avoid being criticized.	0	1	2	3	4
13	Heart palpitations bother me when I am around people.	0	1	2	3	4
14	I am afraid of doing things when people might be watching.	0	1	2	3	4
15	Being embarrassed or looking stupid are my worst fears.	0	1	2	3	4
16	I avoid speaking to anyone in authority.	0	1	2	3	4
17	Trembling or shaking in front of others is distressing to me.	0	1	2	3	4

Brief Fear of Negative Evaluation Scale – Revised (BFNE-R)

		Not at all	Slightly	Moderately	Very	Extremely
1	Sometimes I think I am too concerned with what other people think of me	1	2	3	4	5
2	I worry about what kind of impression I make on people	1	2	3	4	5
3	I am afraid that other people will find fault with me	1	2	3	4	5
4	I am concerned about other people's opinions of me	1	2	3	4	5
5	When I am talking to someone, I worry about what they may be thinking about me	1	2	3	4	5
6	I am afraid that others will not approve of me	1	2	3	4	5
7	I am usually worried about what kind of impression I make	1	2	3	4	5
8	I am frequently afraid of other people noticing my shortcomings	1	2	3	4	5
9	I worry about what other people will think of me even when I know it doesn't make any difference	1	2	3	4	5
10	It bothers me when people form an unfavourable impression of me.	1	2	3	4	5
11	I often worry that I will say or do wrong things	1	2	3	4	5
12	If I know someone is judging me, it tends to bother me	1	2	3	4	5

Patient Health Questionnaire - PHQ - 9

Instructions: Over the last 2 weeks, how often have you been bothered by any of the following problems?

		Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

General Anxiety GAD-7

Instructions: Over the last 2 weeks, how often have you been bothered by any of the following problems?

		Not at all	Several days	More than half the days	Nearly every day
1	Feeling nervous, anxious or on edge	0	1	2	3
2	Not being able to stop or control worrying	0	1	2	3
3	Worrying too much about different things	0	1	2	3
4	Trouble relaxing	0	1	2	3
5	Being so restless that it is hard to sit still	0	1	2	3
6	Becoming easily annoyed or irritable	0	1	2	3
7	Feeling afraid as if something awful might happen	0	1	2	3

Work and Social Adjustment Scale - WSAS

Instructions: People's problems sometimes affect their ability to do certain day-to-day tasks in their lives. To rate your problems, look at each section and determine on the scale provided how much your problem impairs your ability to carry out the activity.

If you're retired or choose not to have a job for reasons unrelated to your problem, tick here

0 1 2 3 4 5 6 7 8
 Not at all Slightly Definitely Markedly Very severely

1	Because of my social anxiety my ability to work is impaired (score if applicable).	0	1	2	3	4	5	6	7	8
2	Because of my social anxiety my home management (cleaning, tidying, shopping, cooking, looking after home or children, paying bills) is impaired.	0	1	2	3	4	5	6	7	8
3	Because of my social anxiety my social leisure activities (with other people e.g. parties, bars, clubs, outings, visits, dating, home entertaining) are impaired	0	1	2	3	4	5	6	7	8
4	Because of my social anxiety, my private leisure activities (done alone, such as reading, gardening, collecting, sewing, walking alone) are impaired.	0	1	2	3	4	5	6	7	8
5	Because of my social anxiety, my ability to form and maintain close relationships with others, including those I live with, is impaired.	0	1	2	3	4	5	6	7	8

Appendix 10

Moderator Questionnaires – Primary Study

Toronto Alexithymia Scale - T A S – 20

Using the scale provided as a guide, indicate how much you agree or disagree with each of the following statements by circling the corresponding number. Give only one answer for each statement.

		Strongly Disagree	Moderately Disagree	Neither Disagree or Agree	Moderately Agree	Strongly Agree
1	I am often confused about what emotion I am feeling	1	2	3	4	5
2	It is difficult for me to find the right words for my feelings.	1	2	3	4	5
3	I have physical sensations that even doctors don't understand.	1	2	3	4	5
4	I am able to describe my feelings easily.	1	2	3	4	5
5	I prefer to analyse problems rather than just describe them.	1	2	3	4	5
6	When I am upset, I don't know if I am sad, frightened, or angry.	1	2	3	4	5
7	I am often puzzled by sensations in my body.	1	2	3	4	5
8	I prefer to just let things happen rather than to understand why they turned out that way.	1	2	3	4	5
9	I have feelings that I can't quite identify.	1	2	3	4	5
10	Being in touch with emotions is essential.	1	2	3	4	5
11	I find it hard to describe how I feel about people.	1	2	3	4	5
12	People tell me to describe my feelings more.	1	2	3	4	5
13	I don't know what's going on inside me.	1	2	3	4	5
14	I often don't know why I am angry.	1	2	3	4	5
15	I prefer talking to people about their daily activities rather than their feelings.	1	2	3	4	5
16	I prefer to watch "light" entertainment shows rather than psychological dramas	1	2	3	4	5
17	It is difficult for me to reveal my innermost feelings, even to close friends.	1	2	3	4	5
18	18. I can feel close to someone, even in moments of silence.	1	2	3	4	5
19	I find examination of my feelings useful in solving personal problems.	1	2	3	4	5
20	Looking for hidden meanings in movies or plays distracts from their enjoyment.	1	2	3	4	5

State Trait Anger Inventory – 2nd Edition - STAXI-2

This questionnaire is divided into two parts. Each part contains a number of statements that people use to describe their feelings and behaviour. Please note that different parts have different directions.

There are no right and wrong answers. In responding to each statement, give the answer that describes you best.

Read each of the following statements that people use to describe themselves, and then blacken the appropriate circle to indicate how you *generally* feel or react. There are no right or wrong answers. Do not spend too much time on any one item. Mark the answer that *best* describes how you *generally* feel or react.

Part One

			Not at all	Somewhat	Moderately so	Very much so
1	16	I am quick tempered	1	2	3	4
2	17	I have a fiery temper	1	2	3	4
3	18	I am a hot-headed person	1	2	3	4
4	19	I get angry when I'm slowed down by other's mistakes	1	2	3	4
5	20	I feel annoyed when I am not given the recognition for doing good work	1	2	3	4
6	21	I fly off the handle	1	2	3	4
7	22	When I get mad I say nasty things	1	2	3	4
8	23	It makes me furious when I'm criticized in front of others	1	2	3	4
9	24	When frustrated, I feel like hitting someone	1	2	3	4
10	25	I feel infuriated when I do a good job and get a poor evaluation	1	2	3	4

Everyone feels angry or furious at times, but people differ in the ways they react when they are angry. A number of statements are listed below which people use to describe themselves when they feel *angry* or *furious*. Read each statement and then blacken the appropriate circle to indicate how *often* you *generally* react or behave in the manner described when you feel angry or furious. There are no right or wrong answers. Do not spend too much time on any one item.

Part Two

		Almost never	Sometimes	often	Almost always
11	I control my temper	1	2	3	4
12	I express my anger	1	2	3	4
13	I take a deep breath and relax	1	2	3	4
14	I keep things in	1	2	3	4
15	I am patient with others	1	2	3	4
16	If someone annoys me, I am apt to tell him or her how I feel	1	2	3	4
17	I try to calm myself as soon as possible	1	2	3	4
18	I pout or sulk	1	2	3	4
19	I control my urge to express my angry feelings	1	2	3	4
20	I lose my temper	1	2	3	4
21	I try to simmer down	1	2	3	4
22	I withdraw from people	1	2	3	4
23	I keep my cool	1	2	3	4
24	I make sarcastic comments to others	1	2	3	4
25	I try to soothe my angry feelings	1	2	3	4
26	I boil inside, but I don't show it	1	2	3	4
27	I control my behaviour	1	2	3	4
28	I do things like slam doors	1	2	3	4
29	I endeavour to become calm again	1	2	3	4
30	I tend to harbour grudges that I don't tell anyone about	1	2	3	4
31	I can stop myself losing my temper	1	2	3	4
32	I argue with others	1	2	3	4

33	I reduce my anger as soon as possible	1	2	3	4
34	I am secretly quite critical of others	1	2	3	4
35	I try to be tolerant and understanding	1	2	3	4
36	I strike out at whatever infuriates me	1	2	3	4
37	I do something relaxing to calm down	1	2	3	4
38	I am angrier than I am willing to admit	1	2	3	4
39	I control my angry feelings	1	2	3	4
40	I say nasty things	1	2	3	4
41	I try to relax	1	2	3	4
42	I'm irritated a great deal more than people are aware of	1	2	3	4

Appendix 11

Mediator Questionnaires – Primary Study

Internal Shame Scale - ISS

Directions: Below is a list of statements describing feelings or experiences that you may have had from time to time or that are familiar to you because you have had these feelings and experiences for a long time. Most of these statements describe feelings and experiences that are generally painful or negative in some way. Some people will seldom or never have many of these feelings. Everyone has had some of these feelings at some time, but if you find that these statements describe the way you feel a good deal of the time, it can be painful just reading them. Try to be as honest as you can in responding.

Read each statement carefully and circle the number to the left that indicates the frequency with which you find yourself feeling or experiencing what is described in the statement. PLEASE, DO NOT OMIT AN ITEM.

		Never	Seldom	Sometimes	Frequently	Almost always
1	I feel like I am never quite good enough	1	2	3	4	5
2	I feel somehow left out.	1	2	3	4	5
3	I think people look down on me.	1	2	3	4	5
4	I scold myself and put myself down	1	2	3	4	5
5	I feel insecure about others opinion of me.	1	2	3	4	5
6	Compared to other people, I feel like I, somehow, never measure up.	1	2	3	4	5
7	I see myself as being very small and insignificant.	1	2	3	4	5
8	I feel intensely inadequate and full of self-doubt	1	2	3	4	5
9	I feel as if I am somehow defective as a person, like there is something wrong with me.	1	2	3	4	5
10	When I compare myself to others, I am not as important.	1	2	3	4	5
11	I have an overpowering fear that my faults will be revealed in front of others.	1	2	3	4	5
12	I see myself striving for perfection only to continually fall short.	1	2	3	4	5
13	I think others are able to see my defects.	1	2	3	4	5
14	I could beat myself over the head with a club when I make a mistake.	1	2	3	4	5
15	I would like to shrink away when I make a mistake.	1	2	3	4	5
16	I replay painful events over and over in my mind until I'm overwhelmed.	1	2	3	4	5
17	At times I feel like I will break into a thousand pieces.	1	2	3	4	5
18	I feel I have lost control over my body functions and my feelings.	1	2	3	4	5
19	Sometimes I feel no bigger than a pea.	1	2	3	4	5
20	At times, I feel so exposed that I wish the earth would open and swallow me.	1	2	3	4	5
21	I have this painful gap within me that I have not been able to fill.	1	2	3	4	5
22	I feel empty and unfulfilled.	1	2	3	4	5
23	My loneliness is more like emptiness.	1	2	3	4	5
24	I always feel like there is something missing	1	2	3	4	5

SAFE

Instructions: Some people do the following things when they feel anxious in social situations. Rate how often you would do these things when you are in a social situation.

The rating scale is as follows:

1 = Never

2 = Occasionally

3 = Sometimes

4 = Often

5 = Always

		Never	Occasionally	Sometimes	Often	Always
1	Before you arrive, excessively rehearse what you might say or how you might	1	2	3	4	5
2	Remain silent	1	2	3	4	5
3	Try to keep tight control of your behaviour	1	2	3	4	5
4	Speak softly	1	2	3	4	5
5	Say 'I'm not usually like this'	1	2	3	4	5
6	Blank out or switch off mentally	1	2	3	4	5
7	Hold your arms still	1	2	3	4	5
8	Spend time thinking of good excuses for escaping	1	2	3	4	5
9	Wear cool clothes to prevent sweating	1	2	3	4	5
10	Avoid eye contact	1	2	3	4	5
11	Wear clothes or makeup to hide blushing	1	2	3	4	5
12	Say 'it's hot' to explain sweating or blushing	1	2	3	4	5
13	Account for poor performance by saying that you didn't have time to prepare	1	2	3	4	5
14	Rehearse sentences in your mind	1	2	3	4	5
15	Spend hours on grooming prior to the situation	1	2	3	4	5
16	Wear clothes that will conceal sweating if it occurs	1	2	3	4	5
17	Say that you are sick/unwell	1	2	3	4	5
18	Look closely at other people and try to gauge their reactions to you	1	2	3	4	5
19	Avoid asking questions	1	2	3	4	5
20	Speak in short sentences	1	2	3	4	5
21	Keep still to avoid drawing attention to yourself	1	2	3	4	5
22	Hide your face	1	2	3	4	5
23	Make excuses about your appearance	1	2	3	4	5
24	Check the redness of your face in a mirror	1	2	3	4	5
25	Try to think about other things	1	2	3	4	5
26	Try to think of reasons why the other person is inferior to you	1	2	3	4	5
27	Avoid pauses in speech	1	2	3	4	5
28	Position yourself so as not to be noticed	1	2	3	4	5
29	Hold your cup or glass tightly	1	2	3	4	5
30	Ask others about your performance	1	2	3	4	5
31	Imagine you are somewhere else	1	2	3	4	5
32	Be reserved about what you say	1	2	3	4	5

Appendix 12

Moderator Results – Primary Study

FPE – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	-.1921	.1041	-1.8448	.0673	-.4641	.0800
SPS	-.2318	.1314	-1.7639	.0800	-.5753	.1116
SPIN	-.1445	.1261	-1.1449	.2543	-.4742	.1853
BFNE-R	-.0321	.1047	-.3069	.7594	-.3057	.2414
PHQ-9	.0302	.0647	.4674	.6410	-.1389	.1993
GAD-7	-.0778	.0572	-1.3603	.1760	-.2274	.0717
WSAS	-.2430	.0853	-2.8501	.0051	-.4659	-.0202

TAS-20 – Total – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	.1646	.1287	1.2789	.2031	-1717	.5009
SPS	.3527	.1660	2.1244	.0355	-.0812	.7865
SPIN	.1153	.1567	.7362	.4629	-.2941	.5248
BFNE-R	.1043	.1294	.8058	.4218	-.2339	.4425
PHQ-9	.0553	.0780	.7086	.4798	-.1485	.2590
GAD-7	.1017	.0703	1.4452	.1508	-.0822	.2855
WSAS	.0352	.1090	.3235	.7468	-.2495	.3200

TAS – Difficulty Describing Feelings – Moderator Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	.0687	.3621	.1896	.8499	-.8776	1.0149
SPS	.8265	.4665	1.7717	.0787	-.3926	2.0456
SPIN	-.1209	.4391	-.2752	.7836	-1.2684	1.0267
BFNE-R	-.1149	.3623	-.3172	.7516	-1.0618	.8320
PHQ-9	.1539	.2198	.7003	.4850	-.4204	.7282
GAD-7	.2821	.1974	1.4292	.1553	-.2338	.7980
WSAS	-.0561	.3046	-.1841	.8542	-.8522	.7401

TAS – Difficulty Identifying Feelings – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	.2530	.2333	1.0841	.2803	-.3568	.8627
SPS	.5658	.3021	1.8792	.0633	-.2237	1.3553
SPIN	.4168	.2825	1.4751	.1425	-.3216	1.1551
BFNE-R	.3680	.2331	1.5788	.1168	-.2411	.9771
PHQ-9	.0610	.1403	.4352	.6641	-.3055	.4276
GAD-7	.1286	.1277	1.0065	.3160	-.2053	.4624
WSAS	.0673	.1976	.3404	.7341	-.4491	.5837

TAS – Externally Oriented Thinking – Moderator Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	.5696	.3437	1.6573	.0998	-.3286	1.4677
SPS	.5361	.4500	1.1913	.2357	-.6400	1.7122
SPIN	.0346	.4203	.0824	.9345	-1.0638	1.1330
BFNE-R	.0517	.3463	.1494	.8815	-.8533	.9568
PHQ-9	.1124	.2110	.5327	.5951	-.4389	.6637
GAD-7	.1842	.1900	.9698	.3339	-.3123	.6807
WSAS	.1577	.2917	.5408	.5896	-.6045	.9200

TraitA – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	.0566	.2365	.2395	.8111	-.5613	.6746
SPS	-.0992	.3093	-.3207	.7490	-.9074	.7090
SPIN	-.0038	.2875	-.0131	.9895	-.7551	.7476
BFNE-R	.3266	.2349	1.3905	.1667	-.2872	.9404
PHQ-9	.0916	.1442	.6350	.5265	-.2853	.4684
GAD-7	.1004	.1300	.7724	.4412	-.2394	.4403
WSAS	-.0126	.1994	-.0630	.9498	-.5338	.5086

Temp – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	.1398	.4487	.3116	.7558	-1.0327	1.3123
SPS	-.3458	.5872	-.5889	.5570	-1.8802	1.1887
SPIN	-.2310	.5469	-.4223	.6735	-1.16602	1.1983
BFNE-R	.4674	.4425	1.0563	.2927	-.6889	1.6237
PHQ-9	.3148	.2729	1.1537	.2507	-.3983	1.0279
GAD-7	.0594	.2479	.2394	.8111	-.5885	.7072
WSAS	-.0505	.3797	-.1330	.8944	-1.0427	.9418

T-Anger Reaction – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	-.1474	.5501	-.2680	.7891	-1.5849	1.2900
SPS	-.2373	.7167	-.3311	.7411	-2.1102	1.6356
SPIN	.1099	.6640	.1655	.8688	-1.6254	1.8452
BFNE-R	.4627	.5504	.8407	.4020	-.9756	1.9010
PHQ-9	-.1850	.3346	-.5530	.5812	-1.0593	.6893
GAD-7	.2333	.3016	.7735	.4406	-.5549	1.0214
WSAS	-.1855	.4595	-.4038	.6870	-1.3864	1.0153

AX-O (Expression Out) – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	.7498	.4182	1.7929	.0753	-.3431	1.8426
SPS	.4720	.5552	.8502	.3968	-.9789	1.9230
SPIN	.6283	.5151	1.2197	.2247	-.7178	1.9744
BFNE-R	.9022	.4146	2.1758	.0313	-.1814	1.9858
PHQ-9	.0982	.2601	.3777	.7063	-.5815	.7780
GAD-7	-.0253	.2353	-.1076	.9144	-.6401	.5895
WSAS	.3076	.3596	.8554	.3939	-.6321	1.2472

AX-I (Expression In) – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	-1.687	.3079	-.5481	.5846	-.9732	.6358
SPS	-.0791	.4012	-.1972	.8440	-1.1277	.9695
SPIN	.4366	.3721	1.1731	.2428	-.5360	1.4091
BFNE-R	.0626	.3087	-.2029	.8395	-.8693	.7440
PHQ-9	-.1133	.1867	-.6068	.5450	-.6014	.3747
GAD-7	-.0868	.1678	-.5171	.6059	-.5252	.3517
WSAS	.0637	.2581	.2470	.8053	-.6106	.7381

AC-O (Control Out) – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	-.5322	.3130	-1.7003	.0914	-1.3501	.2858
SPS	-.3751	.4118	-.9023	.3685	-1.4476	.7045
SPIN	-.2328	.3839	-.6065	.5452	-1.2360	.7703
BFNE-R	-.4069	.3141	-1.2957	.1973	-1.2277	.4138
PHQ-9	-.0989	.1925	-.5136	.6084	-.6020	.4042
GAD-7	-.0807	.1741	-.4636	.6437	-.5358	.3743
WSAS	-.0980	.2665	-.3678	.7136	-.7944	.5984

AC-I (Control In) – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	-.2249	.3052	-.7369	.4625	-1.0225	.5727
SPS	-.3559	.3978	-.8947	.3723	-1.3955	.6837
SPIN	-.1749	.3669	-.4768	.6343	-1.1336	.7838
BFNE-R	-.1100	.3052	-.3605	.7191	-.9077	.6877
PHQ-9	-.1165	.1861	-.6257	.5326	-.6029	.3700
GAD-7	-.2216	.1673	-1.3248	.1875	-.6587	.2155
WSAS	-.1603	.2568	-.6241	.5336	-.8313	.5107

PHQ-9 – Moderator Interaction Results

Dependent Variable	Coeff - <i>b</i>	SE	t	p	LLCI	ULCI
SIAS	-.1747	.2349	-.7434	.4585	-.7885	.4391
SPS	.0781	.3031	.2575	.7972	-.7140	.8702
SPIN	-.0109	.2855	-.0381	.9696	-.7569	.7351
BFNE-R	.1091	.2357	.4627	.6443	-.5070	.7252