Exploring the relationship between Shame Memories, Self-Concept, and Wellbeing

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ABSTRACT

Background: High levels of shame are considered a transdiagnostic experience, and have been associated with early shame memories that contain traumatic features and become central to one's self-concept. Compassion Focused Therapy aims to reduce shame via compassionate exercises. Difficulties, however, can be experienced when these are attempted, and identifying fears around developing compassion might not be helpful for all individuals. Consequently, there is a clinical need to consider alternative constructs. Structural aspects of self-concept are considered to be significant in the experience of psychological distress and wellbeing, but have been largely overlooked in clinical psychology, and have yet to be considered in the experience of shame.

Aim: To explore the relationships between shame memories containing traumatic and centrality features, current experiences of shame, a structural component of self-concept in the form of self-concept clarity, and psychological distress and wellbeing.

Method: Participants (n = 220), ranging from 18-63 years (M = 32.03, SD = 10.82) completed questionnaires online pertaining to the characteristics of a shame memory they recalled, current experiences of external and internal shame, self-concept clarity, self-esteem, psychological distress, and wellbeing. One hundred and five participants (46.47%) had received a range of psychiatric diagnoses, and a further thirty-two (14.54%) experienced self-reported psychological distress.

Results: Shame memories containing traumatic and centrality features were significantly associated with shame and distress. Shame memories containing traumatic features was a significant predictor of psychological distress and wellbeing. Participants who recalled a shame memory involving an attachment figure reported significantly more traumatic and centrality features, higher external and internal shame, and lower self-esteem and wellbeing, compared to those who

recalled a shame memory involving a non-attachment figure. Significant and moderate associations were found between self-concept clarity, shame memories, and shame. Self-concept clarity, however, was not a significant predictor of psychological distress and wellbeing, whilst self-esteem was.

Conclusions: The findings suggested that self-esteem could be more useful to consider than self-concept clarity in the experience of shame. However, this could have been influenced by the measures used. A number of tentative clinical implications can be drawn from the study including the importance of assessing the key details of shame memories (e.g., who the individual felt shamed by), and actively attending to wellbeing and distress within assessments and interventions for high levels of shame. The importance of preventative interventions in reducing shaming experiences within public health initiatives and educational settings was also demonstrated.

ACKNOWLEDGEMENTS

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Within this thesis, the following abbreviations will be used:

AM = Autobiographical Memory

CES = Centrality Event Scale

CET = Centrality Event Theory

DASS-A = Anxiety subscale

DASS-D = Depression subscale

DASS-S = Stress subscale

DASS-T = Total score on the DASS-21

DASS-21 = Depression, Anxiety and Stress Scale

IES-R = Impact of Event Scale Revised

IWMs = Internal Working Models

MANCOVA - Multivariate Analysis of Covariance

MANOVA = Multivariate Analysis of Variance

OAS = Other as Shamer Scale

RES = Rosenberg Self-Esteem Scale

SCC = Self-concept Clarity

SCCS = Self-concept Clarity Scale

SCS = The Social Comparison Scale

SD = Standard Deviation

SDs = Standard Deviations

SE = Self-esteem

SEI = Same Experiences Interview

SMs = Shame Memories

SMS = Self-Memory System

WEMWBS = Warwick-Edinburgh Mental Health Wellbeing Scale

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1. INTRODUCTION

1.1. Overview

This chapter will begin with broad definitions of the constructs of interest, and the terminology that will be used. This will be followed by a consideration of how shame and shame memories have been conceptualised within the increasingly influential biopsychosocial model of shame and Compassion Focused Therapy (Gilbert, 1998; 2010), which emphasise the role of self-concept within these experiences. There has been extensive theorising about self-concept across many fields in psychology, including cognitive, developmental and social psychology. Within social psychology literature, the way information about the self is organised (i.e., structural aspects of self-concept), and how this relates to psychological distress and wellbeing has been investigated. This theorising has been largely overlooked in clinical psychology (Stopa, 2009), and has yet to be considered in the experience of shame memories and shame. To address this gap, it will be argued that a structural aspect of self-concept in the form of self-concept clarity will be useful to explore in the context of Gilbert's (1998) biopsychosocial model on the basis of two literature reviews, which focus on shame memories and self-concept clarity respectively. The clinical utility and the research questions will subsequently be outlined.

1.2. Definitions and terminology

1.2.1. <u>Self-concept</u>

Self-concept is one of the most widely researched constructs within psychology, and is often used interchangeably with 'self-identity' (Hattie, 2014). Although there is no agreed definition, it broadly refers to the way an individual considers, evaluates, and understands who they are (Baumesiter, 1999). According to Baumesiter and Mauraven (1996), these judgments cannot be understood outside of one's social and cultural context.

1.2.2. <u>Psychological distress and wellbeing</u>

According to the Two Continua Model (Keyes, 2002, 2005a, 2007), psychological distress and wellbeing are separate but related dimensional constructs, which vary from mild/low to high/severe respectively. This conceptualisation, which was based on large scale studies conducted in the UK, the US and the Netherlands, is able to take into account the fluidity between the two constructs and the importance of measuring psychological wellbeing in its own right (Payton, 2009; Ryff, 1995).

1.2.2.1. *Psychological distress*: As the researcher is aware of the limitations associated with psychiatric diagnoses (e.g., the experience of stigma and their lack of reliability and validity) (Johnstone, 2013; Kinderman, Read, Moncrieff, & Bentall, 2013; Pilgrim & Bentall, 1999), psychological distress is understood to exist on a continuum. Consequently, distinctions will not be made between clinical and non-clinical groups, and psychiatric diagnoses will be placed in inverted commas when discussed within past literature.

1.2.2.2. *Psychological wellbeing*: Psychological wellbeing is generally considered to be more than the absence of 'illness' (Dodge, Daly, Huyton, & Sanders, 2012). Two perspectives have traditionally been offered; the hedonic perspective, which focused on happiness and satisfaction in one's life, and the eudaemonic perspective, which focused on meaning in one's life and positive psychological functioning, such as working towards one's values (Ryan & Deci, 2001). It has been acknowledged for several years that wellbeing is likely to be a multi-dimensional construct that incorporates elements from both perspectives (Ryan & Deci, 2001). Measuring wellbeing has become more prominent in NHS adult mental health services in response to key political agendas (e.g., Department of Health, 2011; 2014) that have promoted a shift away from focusing solely on reducing 'symptoms' towards a holistic approach, which focuses on improving wellbeing, and quality of life (Connell, O'Cathain, & Brazier, 2014).

1.2.3. <u>Shame</u>

There has been extensive research and theorising about shame that has spanned many fields including; psychology, anthropology and sociology. Given this, it is perhaps not surprising that differences exist in the way shame has been conceptualised. According to Gilbert (1998), shame can be measured in terms of its cognitive, behavioural or interpersonal components, and can be considered a primary, secondary or composite emotion. Through drawing on a functional perspective, Tomkins (1981) considered shame to be an innate emotion that is associated with a unique facial expression and posture. In support, Darwin (1872, 1965) described shame as an adaptive and universal emotion that is charactersied by a downward head tilt and slumped shoulders. Accordingly, Nathanson (1992) and Schore (1994) suggested that shame is experienced during the first few months of life, whereas Lewis (1993, 1995) and Stipek (1995) defined shame as a 'social emotion' that develops around the age of 2-3 years.

To further delineate the experience of shame, attempts have been made to separate it from other emotions including; anxiety, anger, humiliation, and disgust. This, however, has led to debates within the literature. A detailed review is beyond the confines of this chapter, and further information can be found in Gilbert (1998). In response to the huge variability, Gilbert (1998) cautioned that research and theories are at risk of creating subdivisions within psychology. Some commonalities, however, do exist in the way shame has been conceptualised (Blum, 2008).

Within the literature, there is a broad consensus that shame and guilt are distinct emotions. Lewis (1971) postulated that shame involves an evaluation of one's self-concept, which usually involves the perception of the self as flawed and inferior, and a concern with how the self will be perceived by others. In contrast, guilt was associated with a preoccupation about a specific behaviour, which often leads to a confession and/or reparation. This distinction has received empirical support from a number of studies (e.g., Ferguson, Stegge, & Damhuis, 1991; Lindsay-Hertz, 1984).

Shame is generally considered a painful and negative experience that is triggered within social situations, and elicits a desire to hide and conceal (Andrew, Qian, & Valentine, 2002; Gilbert, 1998; Lewis, 1971; Tangney, Miller, Flicker, & Barlow, 1996). As suggested by Lewis (1971), the experience of shame is also believed to have important cognitive components in the form of negative self-evaluations and a concern of how the self will be viewed by others (Blum, 2008). Social comparison and self-evaluations are thus considered integral in the experience of shame. In reviewing the proposed relationships between shame and other emotions, Gilbert (1998) hypothesised that shame is likely to elicit a stress response, whilst blending with other emotions (e.g., anger and anxiety).

Through the development of the biopsychosocial model of shame and Compassion Focused Therapy, Gilbert's (1998; 2010) work has become very influential in the way shame is currently understood and approached within NHS adult mental health services. Each model will thus be reviewed in the following section. The way in which the models informed the current study will also be considered.

1.3. The biopsychosocial model of shame

Gilbert (1998) developed the biopsychosocial model to account for the multi-faceted elements of shame. In keeping with evolutionary psychology, attachment theory (Bowlby, 1969) and neuroscience, the model postulated that humans need support and care from others to survive. To maximise this, humans are motivated to secure relationships through creating positive images of the self in the mind of others to prevent rejection and isolation (Gilbert, 1998; Gilbert, 2010). The model emphasised the importance of social positions and cultural values in influencing who is rejected or accepted within social groups (Gilbert, 2006).

1.3.1. <u>Shame memories</u>
Early social experiences are believed to create "feeling or emotion memories" that influence brain development and shape perceptions of the self and others (Gilbert &

Irons, 2004 p. 507; Schore, 1994). Gilbert (1995) hypothesised that adults who experienced early affiliative relationships are more likely to develop a positive and coherent sense of self underpinned by positive memories of the self in relation to others. Accordingly, it was hypothesised that this process could be disrupted in the absence of such relationships. The importance of developing a coherent sense of self is supported by Erikson's (1968) influential psychosocial model of human development, which suggested that a coherent sense of self is a prerequisite for psychological wellbeing in adulthood. Indeed, Gilbert (2003) proposed that early shaming experiences, whereby the self is experienced as inadequate and worthless in the context of being dismissed, criticised, rejected or abused, can create highly accessible shame memories (SMs), which give rise to negative self-beliefs (e.g., I am inferior) and the experience of psychological distress.

1.3.1.1. Shame memories and self-concept: When theorising about the relationship between SMs and self-concept, Gilbert (1998) drew on the construct of autobiographical memory (AM) as conceptualised within Conway and Pleydell-Pearce's (2000) theory of Self-Memory System (SMS). There is a broad consensus that AM consists of three functions; 1) directive; 2) the self; and 3) communicative (Pillmier, 1992). 'Directive' refers to the role of AM in present and future planning; 'the self' refers to its role within self-concept; and communicative refers to its role in the development and maintenance of social relationships. Current perceptions of the self (defined as working self) are believed to be shaped through knowledge contained in AM (e.g., memories and self-beliefs) interacting with current goals. Accordingly, several 'possible selves' are available at any given time and the working self has some control over how memories and self-beliefs are constructed and recalled (Conway & Pleydell-Pearce, 2000). The SMS was developed further by Conway, Singer and Tagini in 2004. One key development was the proposition that AM has two key demands; 1) encoding on-going experiences that are shaped by current goals (adaptive correspondence), 2) whilst maintaining a coherent sense of self across time (self-coherence). Within this framework, psychological distress is

believed to arise when the two demands are out of balance (Conway & Pleydall-Pearce, 2000; Conway, Singer & Tagini, 2004).

The SMS has informed extensive theorising about self-concept within different disciplines including clinical, developmental, and social psychology. Across these disciplines, and in the same way as Gilbert (1998), self-concept is believed to develop through social interactions with significant others as epitomised through Cooley's 'looking-glass self' (Cooley, 1902). Self-concept is thus considered a dynamic and multi-dimensional construct (Markus & Nurius, 1986; Markus & Wurf, 1987). On the basis of social psychology literature, Stopa (2009) developed the tripartite approach, which postulated that self-concept is constructed through three interrelated process; 1) content; 2) structure; and 3) process. Content refers to the knowledge or information that is used to inform one's self-concept (e.g., self-beliefs); structure refers to the way information is organised within one's self-concept (e.g., sense of coherence); and process refers to the way information about the self is regulated (e.g., self-focused attention). Stopa (2009) argued that theories and research within clinical psychology could benefit from drawing on other fields in psychology, such as social psychology literature, as past work has tended to focus on the content, and to a lesser extent the process of self-concept, whilst the structure has been largely overlooked.

The importance of attending to structural components of self-concept has been emphasised by a number of theorists (McConnell & Strain, 2007; Showers, 1992; Showers, Zeigler-Hill, & Limke, 2006) who have argued that structural aspects of self-concept influence the accessibility of self-beliefs and should thus be considered when understanding the relationship between self-concept, psychological distress and wellbeing. Although an explicit reference to structural aspects of self-concept was not made, it could be argued that Gilbert's (1995) assertion that SMs and the absence of early affiliative relationships can lead to a negative and less coherent sense of self indicated the possible influence of early shaming experiences on the content (negative self-beliefs) and structure (less coherent) of self-concept.

1.3.1.2. *The experience of shame:* Within the biopsychosocial model, SMs are believed to increase shame-proneness, and thus the extent to which shame is experienced across situations (Lewis, 1971). This is in keeping with Kaufman (1989) who suggested that the repeated experience of shame can lead to global and negative self-evaluations around one's worthiness. In contrast, Andrews, Qian and Valentine (2002) conceptualised shame as a multidimensional construct that can be experienced within particular domains, including personal habits (categorical shame), specific behaviours (behavioural shame), and physical appearance (bodily shame). In support of Kaufman, (1989), Gilbert (1998) made a distinction between external and internal shame, which are considered global experiences of shame. External shame is experienced when it is believed others perceive the self as inferior and flawed (e.g., the stigma associated with receiving a psychiatric diagnosis). In contrast, internal shame is experienced when a negative evaluation is turned inwards towards one's self-concept, and the self is experienced as inferior, powerless and flawed.

Gilbert's (1998) postulated that high levels of shame increased the likelihood of psychological distress being experienced and was thus a transdiagnostic experience (i.e., a common experience across multiple 'disorders'). This was supported by high levels of shame being found in the experience of 'depression'; 'psychosis'; 'substance abuse'; 'eating disorders'; 'social anxiety'; 'posttraumatic stress disorder (PTSD);' 'personality disorders'; and 'obsessive-compulsive disorders' (Gilbert & Irons, 2004; Gilbert, Pehl, & Allen, 1994; Gilbert & Trower, 1990; Lee, Scragg, & Turner, 2001; Weingarden & Renshaw, 2015).

1.4. Compassion Focused Therapy

Based on the biopsychosocial model, Gilbert (2010) developed Compassion Focused Therapy (CFT) as a transdiagnostic therapeutic approach to support individuals who experience high levels of shame (Gilbert, 2009; Rector, Bagby, Segal, Joffe, & Levitt, 2000). CFT is considered a 'third-wave' therapeutic approach,

as it incorporates elements from cognitive-behavioural therapy (e.g., cognitions influence feelings and behaviours), whilst introducing new constructs (e.g., compassion) that are applied transdiagnostically.

1.4.1. <u>What is Compassion?</u>

Within CFT, the construct of compassion is drawn from Buddhist traditions, and is defined as the "sensitivity to the suffering of the self and others, with a deep commitment to try and alleviate and prevent it" (Gilbert, 2010 p. 10). In keeping with Gilbert's (1998) model of shame, compassion is understood within an evolutionary and thus secular framework. Three main 'flows of compassion' are believed to create feelings of warmth and kindness; 1) compassion towards others, 2) compassion from others and 3) compassion towards the self (i.e., self-compassion) (Gilbert, 2009). In support, MacBeth and Gumley (2012) conducted a meta-analysis including fourteen studies and found a large and negative association between self-compassion and scores on a measure of depression, anxiety and stress. Furthermore, significant and positive associations have been found between self-compassion and psychological wellbeing including; social connectedness (Neff, Kirkpatrick, & Rude, 2007) and life satisfaction (Neff, 2009).

1.4.2. <u>Emotion regulation systems</u>

According to CFT, three interrelated emotion regulation systems underpin the experience of different affects (Gilbert, 1998).

1.4.2.1. *Threat system:* the threat system has evolved to detect and respond to threats quickly (e.g., freeze, run, attack), through the regulation of serotonin (Caspi & Moffitt, 2006; Gilbert, 2010). The detection of threats gives rise to different emotions, including anger and anxiety (Gilbert, 2009). As shaming experiences challenge the evolved motivation to exist positively in the minds of others, it is hypothesised that these experiences can cause the 'threat system' to become overdeveloped (Gilbert, 2010).

1.4.2.2. *Drive system:* The drive system underpins the motivation to seek rewards and resources through the regulation of dopamine (Gilbert, 2010). A complex interaction is believed to exist between the threat and drive system, as striving towards the acquisition of valued resources can avoid the negative emotions associated with the threat system (Gilbert, 2009).

1.4.2.3. *Soothing system:* Early affiliative relationships are believed to shape the development of the soothing system, which is regulated by oxytocin (Carter, 1998). In contrast to the drive system, the soothing system creates the experience of peacefulness and wellbeing. Accordingly, the soothing system is believed to be underdeveloped in individuals who experience psychological distress (Gilbert, 2010).

1.4.3. Components of CFT

CFT has several components including; psychoeducation around the three emotion regulation systems and developing a formulation where explicit links are made between SMs, current experiences of shame and distress (Gilbert, 2010). To activate the soothing system, CFT also aims to enhance compassion through the use of Compassionate Mind Training (CMT), which is the key intervention within CFT. CMT can be broadly divided into breathing exercises (e.g., soothing rhythm breathing) and imagery work including; creating a safe place; imagining a compassionate colour; and developing a compassionate self.

1.4.4. CFT as a transdiagnostic intervention

Evidence in support of CFT has increased over recent years. Mayhew and Gilbert (2008) conducted a case series design involving three individuals who felt distressed in response to hearing voices. Following a one-to-one CFT intervention, the voices were experienced as less malevolent and the individuals experienced less distress. Similarly, Boersma, Hakanson, Salomonsoon and Johansoon (2014) concluded that CFT is a 'promising intervention' when investigating its effectiveness using a single case experimental design involving six individuals who experienced high anxiety in social situations.

CFT has also been delivered as a group intervention whereby individuals had the opportunity to meet others who shared similar experiences. In support of CFT, higher levels of self-compassion and lower levels of shame were found across a range of diagnoses, including; 'depression'; (Gilbert, & Irons, 2004); 'eating disorders' (Kelly & Carter, 2014; Kelly, Wisniewski, & Martin-Wager, 2016); 'psychosis' (Braehler, Gumley, Harper, Wallace, Norries, & Gilbert, 2012) and 'personality disorder' (Lucre, & Corten, 2012). Similar findings have also been found across clinical settings including; a community mental health team (Judge, Cleghorn, McEwan, & Gilbert, 2012), an inpatient ward (Heriot-Maitland, Vidal, Balls, & Irons, 2014); and a forensic setting (Laithwaite, O'Hanlon, Collins, Doyle, Abraham, & Porter, 2009).

1.4.5. A critique of CFT

1.4.5.1. *The evidence base:* Although the findings are very encouraging, it is difficult to draw clear conclusions due to the variability in the methods used. When focusing on the findings of CFT as a group intervention, there were several key differences across the studies including; the duration and focus of the CFT intervention; the follow-up procedures and the control groups used. Furthermore, a key premise of CFT is greater levels of compassion will be associated with psychological wellbeing (Neff, Kirkpatrick, & Rude, 2007). This, however, was not explored in the studies (Beaumont & Martin, 2015; Leaviss & Uttley, 2012).

These limitations were supported by Leaviss and Uttley (2015) who conducted a systemic review, which included the studies detailed in section 1.4.4. It was concluded that CFT 'shows promise' but large-scale trials are needed to overcome some of the limitations within the existing literature before CFT can be considered an evidence based intervention (e.g., variability in the methods used). According to Leaviss and Uttley (2015), well designed and large scale trials with long-term follow up procedures would enable clearers conclusions to be drawn about the components of CFT that are particularly important and how effective CFT is compared to other interventions (e.g., CBT).

1.4.5.2. *Fears, blocks and resistances in developing compassion:* A common theme that has emerged within the literature and clinical practice is difficulties can be experienced when CMT exercises are attempted. For example, two of the nine participants in the study by Gilbert and Irons (2004) found it difficult to engage in the compassionate imagery exercises. Challenges were also reported in the study conducted by Mayhew and Gilbert (2008) as an image of a more powerful creature was developed by one participant. This was identified by Beaumont and Martin (2015) who conducted a narrative review around the benefits of CFT, and concluded that some individuals "appreciate CFT imagery exercises, whilst others do not" (p. 29). In support, Pauley and McPherson (2010) explored the meaning of compassion for ten individuals who had received a diagnosis of 'depression' or an 'anxiety disorder'. Although the majority of participants recognised the potential benefits, they felt developing compassion would be difficult due to the concept itself seeming challenging and them having limited experience of receiving compassion.

These challenges have primarily been understood as arising from the under-development of the soothing system and the over-development of the threat system, which can result in feelings of warmth and contentment being unfamiliar and even threatening (Gilbert, McEwan, Matos, & Rivis, 2011). In support, Gilbert et al. (2011) found that fears of developing compassion were positively associated with self-criticism, and higher scores on a measure of depression, anxiety and stress (DASS-42; Lovibond & Lovibond, 1995). This was further supported by Gilbert, McEwan, Catarino, Baião and Palmeira (2014) and Kelly and Carter (2014) who found negative associations between fears of developing compassion and self-compassion.

The therapeutic benefits that can arise from identifying and challenging fears around developing compassion was emphasised by Lawrence and Lee (2014) who explored the experience of completing CFT with seven individuals who had received a diagnosis of 'PTSD'. All participants experienced a 'fearful' and 'hopeless' response towards developing greater self-compassion but were able to persist with therapy

and develop greater self-compassion. The authors, however, acknowledged that CFT might not be a suitable intervention for all individuals, as some might not want to continue with the therapy. Furthermore, by focusing on internal factors that might present a barrier in developing compassion (e.g., overdevelopment of the threat system), attention is solely being placed on intra-psychic factors. In doing so, other factors that could pose a challenge in engaging in CMT are not usually attended to. For example, the construct of compassion within CFT has been drawn from Buddhist tradition and has been secularised through the influence of evolutionary psychology. Based on the researcher's clinical experience, this is not always compatible with some religious beliefs. Furthermore, as detailed in section 1.4.5.2, difficulties can be experienced when CMT exercises are attempted as some individuals find it difficult to generate compassionate images possibly due to them having limited experience of receiving compassion from others. This can be particularly challenging as developing and attending to such images form the basis for several CMT exercises.

In response to these challenges, and the ethical responsibility that clinicians have to adapt approaches to suit the needs of service-users (Division of Clinical Psychology, 2011), there appears to be a clinical need to identify other factors that could be useful to consider when compassion, as conceptualised within CFT, is not experienced as a helpful or meaningful construct. As Gilbert (1998) hypothesised that psychological distress is underpinned by SMs, understanding the mechanisms that might influence the relationship between SMs, and the experience of psychological distress and wellbeing in adulthood could provide a useful starting point. This formed the basis for the first literature review.

1.5. Literature Review I: Shame memories

To identify the relevant literature, the following terms; 'early shame experiences' and 'shame memories,' were entered into Psychinfo, Psycharticles, CINALH Plus, and Scopus, alongside terms pertaining to psychological distress and wellbeing (see Appendix A). Grey literature (e.g., Google Scholar) was also searched. A total of 12

studies were retrieved. All studies were published by a group at the University of Coimbra in Portugal who situated their research within Gilbert's (1998) model of shame. A narrative review will now be offered to summarise the studies.

1.5.1. <u>Characteristics of shame memories</u>

1.5.1.1. *Traumatic features:* As shame can arise in the context of abusive experiences, Matos and Pinto-Gouveia (2010) investigated whether SMs can contain traumatic features in the form of intrusions, hyperarousal and avoidance. The study included 811 participants recruited from the student population at the University of Coimbra and staff working at private institutions and schools. Participants completed the Impact of Event Scale-Revised (IES-R; Weiss & Marmar, 1997) whilst recalling a SM from their childhood or adolescence. Participants also completed the Other as Shamer Scale (Allan, Gilbert, & Goss, 1996) as a measure of external shame, and the Experience of Shame Scale (Andrews, Qian, & Valentine, 2002) as a measure of internal scale. Psychological distress was measured using the Depression, Anxiety and Stress Scale (DASS-42; Lovibond & Lovibond, 1995). SMs were found to contain traumatic features and this was positively associated with current feelings of external and internal shame. Furthermore, a positive association was found between traumatic SMs and the three subscales belonging to the DASS-42. Based on these findings, which were strengthened by the large sample size, the importance of assessing the traumatic features of SMs within clinical work was emphasised.

1.5.1.2. *Centrality features:* In response, Pinot-Gouveia and Matos (2011) drew on the Centrality Event Theory (CET; Bernstein & Rubin, 2006), which had been developed to understand the construct of PTSD. The CET argued that self-concept is shaped through the activation of highly accessible memories. The theory proposed three ways in which memories of negative events can become problematic; 1) through becoming a central reference point for everyday inferences; 2) being a significant turning point in one's life story, and 3) becoming central to one's self-concept. To test this, Bertsen and Rubin (2006) developed the centrality of

event scale (CES). In support of the CET, positive associations were found between the CES and measures of depression, anxiety and PTSD in student samples.

Pinto-Gouveia and Matos (2011) investigated the relationship between the centrality of SMs, current levels of shame (external and internal) and measures of depression, anxiety, and stress, in the same sample as Matos and Pinto-Gouveia (2010). In the same way as the IES-R, participants were asked to complete the CES based on a significant SM from their childhood or adolescence. In support of the CET, a positive association was found between the centrality of SMs, current feelings of shame, and scores on the symptom based measures. Pinto-Gouveia and Matos (2011) concluded that SMs can become highly accessible within AM, which can lead to negative self-beliefs (e.g., I am inferior). The importance of assessing how SMs are structured within one's AM was thus emphasised.

1.5.1.3. *Shame and other negative memories:* To investigate their specific impact, Matos, Pinto-Gouveia and Duarte (2012) compared SMs to memories involving sadness and fear across two studies involving students from the University of Coimbra in Portugal. When the centrality of the other memories was controlled, SMs were found to be the best predictor of current feelings of external and internal shame, and the only predictor of paranoid ideation and dissociation. This provided support for Gilbert's (1998) biopsychosocial model, as it indicated that SMs were a significant predictor of external and internal shame.

Despite these studies providing useful clinical implications, it is not possible to draw causal conclusions (e.g., SMs cause negative self-beliefs) due to the use of cross-sectional designs. It might also be difficult to generalise the findings due to the use of convenient sampling. Furthermore, the studies could be critiqued for the lack of reliability associated with asking participants to recall memories about past shaming experiences. Brewin, Andrews, and Gotlib (1993), however, found that the recall of childhood events was generally accurate and stable overtime, and was not negatively impacted by current mood states. Furthermore, the studies were more

interested in exploring the subjective experience of shaming experiences rather than verifying their accuracy.

1.5.2. <u>The differential impact of shame memories</u>

1.5.2.1. *Attachment and non-attachment:* Four studies investigated whether SMs involving an attachment figure (attachment SMs) or another social agent (non-attachment SMs) (e.g., teacher, peers) had a differential impact on current feelings of shame and distress. As children and adolescents can experience security, protection and validation from a range of significant relationships, theories of secondary attachment have questioned the distinction between attachment and non-attachment figures in postulating that relationships (e.g., with teachers) can serve the same function as primary attachment figures (Rhodes, Spencer, Keller, Liang, & Noam, 2006; Ryzin, 2010). Whilst this is acknowledged, a distinction between attachment and non-attachment SMs will be maintained throughout the thesis as it informed a number of studies conducted by the research group in Portugal.

Matos and Pinot-Gouveia (2014) investigated the relationship between SMs, shame, and a measure of depression in a sample of 230 participants living in Portugal. The Shame Experiences Interview (SEI; Matos & Pinto-Gouveia, unpublished) was used to provide an in-depth investigation of the phenomenology of SMs, including their traumatic and centrality features. It was found that the traumatic and centrality features of attachment and non-attachment SMs were associated with current feelings of shame (both external and internal), and scores on the depression scale. Upon closer inspection, there was a stronger association between attachment SMs and internal shame, and between non-attachment SMs and external shame. These findings demonstrated the importance of assessing key aspects of SMs when working therapeutically (e.g., who the individual felt shamed by).

In further support, Matos, Pinto-Gouveia and Costa (2013) investigated whether the relationship between traumatic SMs and scores on a measure of depression was influenced by emotion regulation strategies in the form of rumination, thought

suppression, and dissociation across two studies. The emotion regulation strategies were found to mediate the relationship between non-attachment SMs and depression, whereas attachment SMs had a direct effect on depression. By drawing on attachment theory (Bowlby, 1969), it was hypothesised that attachment SMs had a direct relationship with distress, due to the significance of early attachment relationships in shaping perceptions of the self.

Similarly, Carvalho, Dinis, Pinto-Gouveia and Estanqueiro (2015) investigated whether experiential avoidance influenced the relationship between SMs and scores on a measure of depression in a sample of 161 participants. Experiential avoidance is part of Acceptance and Commitment Therapy (ACT) and is defined as the avoidance of one's internal experiences (e.g., thoughts and feelings) at the expense of moving towards one's values (Hayes, 1994). The centrality of non-attachment SMs was measured using the CES, whereas attachment SMs was measured using the Shame Experiences Scale (Dinis, Matos, Pinto-Gouveia, & Magalhães, unpublished scale). In support of ACT, positive associations were found between SMs and experiential avoidance, and between experiential avoidance and depression scores. Furthermore, the relationship between non-attachment SMs and depression was mediated by experiential avoidance, whereas attachment SMs had a direct impact on depression scores. This supported the assertion that attachment SMs seem to have a more significant and direct relationship with distress. Causal conclusions, however, cannot be drawn from the study due to the cross-sectional design.

In a similar vein, Matos, Ferreira, Duarte and Pinto-Gouveia (2015) investigated non-attachment SMs in 36 individuals who had received a diagnosis of an 'eating disorder'. In keeping with the Gilbert (1998), it was hypothesised that controlling body weight could be driven by a desire to increase one's social position particularly within Western cultures. The SEI was used to assess the phenomenology of SMs, including their traumatic and centrality features. The severity of distress was measured using the Eating Disorder Examination (EDE; Fairburn & Beglin, 2008),

and the way participants perceived their physical appearance was measured using the Social Comparison through Physical Appearance Scale (Ferreira, Pinto-Gouveia, & Duarte, 2013). A significant and positive association was found between the traumatic and centrality features of SMs and scores on the EDE, and this association was mediated by unfavourable social comparisons. In support of Gilbert (1998), these findings demonstrated the influence of social comparisons in the experience of distress. These results, however, need to be interpreted cautiously as the small sample size reduces the generalisaility of the findings.

1.5.3. <u>The experience of shame</u>

Two studies investigated if there were stronger associations between external and internal shame, and specific forms of psychological distress. Pinto-Gouveia, Matos, Castilho, and Xavier (2014) used measures of depression and paranoia in a sample of 255 participants, alongside measures of external and internal shame and the IES-R. In support of previous research, current feelings of shame (both external and internal) were positively associated with scores on the symptom based measures. However, there was a stronger association between internal shame and depression scores and between external shame and paranoia scores. Moreover, path analyses demonstrated that the relationship between early SMs and depression scores was fully mediated by external and internal shame. When focusing on paranoia, traumatic SMs and the recall of threat and submissiveness predicted paranoia through external shame. Although causal conclusions cannot be assumed, these findings suggested that high levels of shame can lead to distress being experienced in different ways depending on whether feelings of inferiority are internalised or attention is focused on how others view the self.

Similarly, Matos, Pinto-Gouveia ad Gilbert (2013) investigated whether SMs and current feelings of shame were differentially associated with measures of social anxiety and paranoia in a sample of 328 participants. Two path analyses demonstrated a stronger association between internal shame and social anxiety scores and between external shame and paranoia scores. Furthermore, a stronger

association was found between the traumatic and centrality features of SMs and paranoia. These findings suggested that the way SMs are organised in AM might influence the way psychological distress is experienced, and current feelings of external and internal shame seem to have a significant role in these associations. However, longitudinal studies would need to be conducted to confirm causal pathways.

1.5.4. <u>Factors that buffer against the impact of shame memories</u>

Three studies investigated factors that might buffer against the negative impact of SMs. In keeping with Gilbert (1988), Matos, Pinto-Gouveia and Duarte (2013) hypothesised that SMs containing traumatic and centrality features would be associated with higher levels of current shame and scores on a measure of depression, whilst memories involving affiliative relationships, measured using the Early Memories of Warmth and Safety Scale (Ritcher, Gilbert, & McEwan, 2009) would be associated with lower levels of shame in a sample of 178 students from the University of Coimbra. In support, a positive association was found between the traumatic and centrality features of SMs and current feelings of shame, whilst the recall of early affiliative relationships was associated with lower levels of shame. This study, however, did not investigate if the experience of affiliative relationships moderated the relationship between SMs and the experience of distress.

This was investigated by Matos, Pinto-Gouveia and Duarte (2015) who found that memories of safety and warmth moderated the relationship between SMs containing centrality features and scores on a measure of depression in a sample of 188 participants recruited from the University of Coimbra. Consequently, individuals reported lower depression scores if they recalled SMs containing centrality features and memories of warmth and safeness. The same relationship was not found for SMs containing traumatic features, which suggested that the threat associated with traumatic SMs might be too strong to be attenuated by early affiliative relationships.

In a similar vein, Ferriera, Matos, Duarte and Pinto-Gouveia (2014) investigated whether self-compassion moderated the impact of SMs for 34 participants who had received a diagnosis of an 'eating disorder'. The phenomenology of SM was investigated using the SEI, the EDE was used to measure the severity of distress, and self-compassion was measured using the Self-Compassion Scale (Neff, 2003). A negative association was found between self-compassion and the traumatic and centrality features of SMs. Furthermore, when the traumatic and centrality features of SMs were reported as low or medium, self-compassion was found to moderate the relationship between SMs and scores on the EDE. In response, the importance of assessing the phenomenology of SMs and supporting individuals to develop greater self-compassion was emphasised.

1.5.5. <u>Summary of literature review I</u>

A key finding that emerged was attachment and non-attachment SMs can contain traumatic and centrality features and become highly accessible within AM. This was consistently associated with higher levels of external and internal shame, and a range of distress predominantly measured using questionnaires. The importance of attending to key aspects of SMs (e.g., who the individual felt shamed by) within research and clinical work was demonstrated, as this influenced the experience of shame and distress in adulthood. Overall, the findings supported the transdiagnostic experience of SMs and shame, and the importance of exploring the relationship between SMs and self-concept.

Psychological wellbeing was considered in the discussion of some studies (e.g., Matos, Pinto-Gouveia, & Duarte, 2012; 2013). This, however, equated wellbeing solely with the reduction of distress, which does not take into account the multi-dimensional nature of wellbeing as detailed in section 1.2.2.2. Consequently, conclusions around the impact that SMs and shame have on wellbeing cannot be drawn from the studies (Beaumont & Martin, 2015).

When exploring factors that might moderate the impact of SMs on distress, Ferriera, Matos, Duarte and Pinto-Gouveia (2014) emphasised the importance of self-compassion. However, as detailed in section 1.4.5.2, difficulties can be experienced when self-compassionate exercises are attempted as some individuals find it difficult to generate compassionate images possibly due to them having limited experience of receiving compassion from others. This can make the process of developing and attending to such images during CMT exercises difficult. Consequently, identifying other factors that could be useful to explore in the context of SMs and shame remained a useful endeavor.

The review demonstrated a clear gap in the literature as previous studies had not investigated the suggestion made by Gilbert (1995) that early shaming experiences can influence the content and structure of self-concept. As detailed in section 1.3.1.1, several theories, particularly within social psychology, have focused on the way information about the self is structured and how this might relate to psychological distress and wellbeing in adulthood. To fill the gap, the following section will review the theories and consider their relevance to Gilbert's (1998) model of shame.

1.6. Structural components of self-concept

Within the literature, the theories are broadly divided into self-concept pluralism and self-concept unity (Campbell, Assanand, & Di Paula, 2003). Theories of self-concept pluralism (e.g., self-complexity; Linville, 1985 and self-concept compartmentalisation; Showers, 1992) hypothesised that having a larger number of distinct self-aspects that are either positive or negative will lead to greater psychological wellbeing, as positive self-beliefs can be readily activated. This was investigated by asking individuals to sort cards containing positive and negative self-descriptions (e.g., confident and unfriendly) into groups that represent important aspects of their lives. A key limitation of this, however, is individuals have to rely on pre-determined self-descriptions instead of defining their own self-concepts.

Theories of self-concept unity, in contrast, asserted that a coherent self-concept leads to greater psychological wellbeing and lower distress. Theories of self-concept unity include self-concept differentiation (Donahue, Robins, Roberts, & John,1993), self-discrepancies (Higgins, Klein & Strauman, 1987) and self-concept clarity (SCC) (Campbell, Trapnell, Heine, Katz, Lavallee, & Lehman, 1996). Self-concept differentiation is typically measured by asking individuals to rate the relevance of 60 pre-determined traits across social roles, whilst self-discrepancies and self-concept clarity are usually measured using the Selves Questionnaire (Higgins, Klein, & Strauman, 1985) and the Self-Concept Clarity Scale (Campbell et al. 1996) respectively.

Given the opposing hypotheses, Campbell, Assand and Di Paula (2003) conducted four studies to examine how the constructs of self-concept pluralism and unity (described above) related to neuroticism, and self-esteem. A significant and positive association was found between the constructs measuring self-concept unitary and self-esteem, and a negative association was found with neuroticism, whilst self-concept pluralism was found to be largely unrelated to psychological distress and wellbeing. Furthermore, when comparing the constructs of self-concept unitary, self-concept clarity was found to be the most significant predictor.

The importance of self-concept clarity (Campbell et al. 1996), was further supported by Bigler, Neimeyer and Brown (2001) who investigated the relationship between self-concept differentiation, self-concept clarity and several measures of psychological distress and wellbeing including; purpose in life, self-esteem, depression and anxiety in students (n = 133) and individuals who had been admitted to an inpatient ward (n = 31). When self-concept clarity was included as a predictor variable, and the effect of self-concept differentiation was controlled, the variance of psychological distress and wellbeing explained significantly increased within both samples.

Overall, these findings tentatively suggested that self-concept clarity could be useful to explore in the context of Gilbert's (1998) model of shame, as it demonstrated the most significant associations with psychological distress and wellbeing, whilst being compatible with Gilbert's (1995) assertion that a less coherent sense of self is associated with psychological distress. The construct of self-concept clarity will thus be explored in more detail below.

1.7. Self-Concept Clarity

Self-concept clarity (SCC) is defined as the extent to which self-concept is "clearly and confidently defined, internally consistent, and stable" (Campbell et al. 1996, p. 141). SCC is considered a stable trait (Campbell et al. 1996; Conley,1984), and a flexible state that can change in response to life experiences (Campbell & Lavallee, 1993; Dehart & Pelham, 2007; Nezlek & Plesko, 2001). As the construct was developed in the USA, the importance of a coherent sense of self seems particularly relevant within Western cultures, which value an independent sense of self (Campbell et al. 1996; Suh, 2002). Indeed, Baumgardner (1990) hypothesised that individuals with higher SCC experience greater feelings of control over future outcomes.

SCC was partly developed due to the inconsistent findings that were found within self-esteem (SE) literature. Although there is no agreed definition, SE is commonly considered a global evaluation of one's worthiness (Baumeister, 1993; Kernis, 2003; Rosenberg, 1979; Stopa, 2009), that occurs consciously and unconsciously (Greenwald & Farnham, 2000), with it being assumed that individuals with lower SE hold more negative self-beliefs (Baumgardner, 1990). A complex relationship is believed to exist between shame and SE, as shame-proneness had been associated with lower SE. This is in keeping with Kaufman (1989) who suggested that the repeated experience of shame can lead to global and negative self-evaluations around one's worthiness. The direction of this relationship, however, remains unclear (Tangney, & Dearing, 2002; Velotti, Garofalo, Bottazzi, & Caretti, 2016).

A wealth of literature has demonstrated an association between lower SE and negative outcomes including; 'eating disorders' and 'substance misuse' (Silverstone & Salsali, 2003), and a strong relationship has been found between SE and 'depression' (Orth & Robbins, 2013; Sinclair, Blais, Gansler, Sandberg, Bistis, & LoCicero, 2010). In contrast, higher SE has been associated with positive outcomes, including; psychological wellbeing (Paradise and Kernis, 2002), and job satisfaction (Judge, Heller, & Mount, 2002). Higher SE, however, has also been associated with negative outcomes, including aggression and interpersonal challenges (Neff & Vonk, 2009), when it is fragile or unstable. This has led to the conceptualisation of optimal SE, which refers to high SE that is authentic and stable (Kernis, 2003).

The traditional SE literature was challenged by Baumgardner (1990) who found that individuals with lower SE held neutral views about themselves instead of wholly negative views, and Brockner (1984) who found that individuals with lower SE attended to a broad range of information (positive and negative), rather than focusing solely on negative information. In response, Campbell (1990) investigated the relationship between SE and SCC across four studies. The findings elucidated a complex relationship, as individuals with lower SE were found to have less consistent and clearly defined self-beliefs (i.e., lower SCC).

Campbell et al. (1996) extended this research by developing the 12-item Self-Concept Clarity Scale (SCCS). The scale was used to explore the relationship between SCC, SE, personality constructs from the Big Five Personality Inventory (Costa & McCrae, 1989), self-focused attention, and private and public self-consciousness. A significant and negative association was found between SCC and neuroticism, with the opposite pattern being found for agreeableness and conscientiousness. Furthermore, a significant and negative relationship was found between SCC and self-focused attention and public self-consciousness. In response, Campbell (1990) hypothesised that those with lower SCC might rely more on external sources of information as a means of increasing SCC. In support of SE and SCC being distinct yet related constructs, a positive association was found

between SCC and SE, and the association between SCC and the other constructs remained significant when the effects of SE were controlled. Campbell et al. (1996) emphasised that it was not possible to delineate the causal mechanisms, and the relationship between SCC and SE was likely to be reciprocal. In support of the relationship between SE and SCC, a positive association has consistently been found between the constructs (e.g., DeMarre & Rios, 2014; Nezlek & Plesko, 2001; Stopa, Brown, Luke & Hirsch; 2010; Vartanian, 2009). In response, Stopa et al. (2010) emphasised the importance of controlling for SE when exploring the unique influence of SCC (e.g., through conducting hierarchical multiple regressions).

To further consider the relevance of SCC to Gilbert's (1998) biopsychosocial model of shame, a second literature review was conducted to explore the relationship between SCC, psychological distress and wellbeing in more detail.

1.8. Literature Review II: Self-concept clarity

The following search terms; 'self-concept clarity,' 'coherent sense of self,' and 'stable self-beliefs' were entered into Psychinfo, Psycharticles, CINALH Plus, and Scopus, alongside the terms pertaining to psychological distress and wellbeing that were used in literature review I (see Appendix B). Grey literature (e.g., Google Scholar) was also searched. A total of 13 pieces of relevant literature were retrieved. A narrative review will now be offered to summarise the studies. Unless otherwise specified, SCC was measured using the SCCS.

1.8.1. <u>Psychological distress</u>
Eight studies explored the relationship between SCC and psychological distress. Richman, Pond, Dewall, Kumashiro, Slotter and Luchies (2016) explored the relationship between perceived loneliness, SCC, and scores on a depression measure across three studies. One study utilised a cross-sectional design involving 154 students attending a Southeastern university in America, whilst two studies utilised a longitudinal design involving 98 students and individuals from the local

community who were in romantic relationships, and 75 dating couples and 120 married couples respectively. A negative association was found between SCC and scores on the depression measure across the studies, and SCC was found to mediate the relationship between loneliness and depression. Specific conclusions around the role of SCC cannot be drawn, however, as a measure of SE was not included (Stopa et al. 2010). This limitation was addressed by Lee-Flynn, Pomaki, DeLongis, Biesanz and Puterman (2011) who controlled for SE, and found a negative association between SCC and scores on a depression measure across a two-year period in individuals living within stepfamilies.

Kusec, Tallon and Koerner (2016) investigated the relationship between SCC and generalised anxiety scores in a community sample of 235 participants residing in Canada. When intolerance of uncertainty was controlled, lower SCC was found to be a unique and significant predictor of generalised anxiety scores. Similarly, Butzer and Kuiper (2006) investigated the relationship between intolerance of uncertainty, social comparisons and scores on measures of anxiety and depression in an undergraduate student sample in Canada. A positive association was found between intolerance of uncertainty and the frequency of social comparisons, and higher levels of SCC were associated with fewer social comparisons. Path analyses demonstrated that the relationship between social comparisons, depression and anxiety scores was fully mediated by intolerance of uncertainty and SCC. This supported Campbell's (1996) assertion that individuals with lower SCC would be likely to seek external feedback as a means of increasing SCC. Importantly, the findings suggested that higher SCC could serve a protective function in reducing social comparisons. However, in the same way as Richman et al. (2016) a measure of SE was not included, which limits the conclusions that can be drawn about the specific role of SCC.

Stopa et al. (2010) investigated the relationship between structural aspects of self-concept (SCC, self-complexity and self-concept compartmentalisation) and scores on the Social Interaction and Anxiety Scale (SIAS; Mattick & Clarke, 1998) in an

undergraduate student sample across two studies (n = 198 and 14) respectively. SCC was measured using the SCCS and the 'me-not me self-description task' (Markus, 1977), which involved participants deciding whether 60 pre-determined adjectives (e.g., mean or nice) described aspects of their self-concept as quickly as possible, with lower scores indicating lower SCC. When controlling for SE, SCC was found to be the only structural aspect of self-concept that was a unique predictor, with lower scores being predictive of higher social anxiety scores. In response, Stopa et al. (2010) recommended that it could be helpful for SCC to be attended to within assessments, and to be increased during therapy. The therapeutic strategies that could be used, however, were not specified.

The relationship between SCC, SE, body dissatisfaction and dieting concerns was investigated by Vartanian (2009) across two studies. One study involved 322 participants who accessed an online survey and the second involved 175 undergraduates from New York. The study was interested in exploring intrapersonal factors that might buffer against the internalisation of thin body ideals within Western cultures (i.e., thinness for women and muscular/athletic body shape for men). For women, SCC and SE were negatively associated with the internalisation of body ideals, and SCC was found to be the only significant predictor. For men, significant associations between SCC, SE and the internalisation of body ideals were not found. This could have been influenced by the measures used as some were biased towards the internalisation of thinness (e.g., the Sociocultural Attitudes Toward Appearance Questionnaire; SATAQ-3; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2003). In both men and women, however, the internalisation of body ideals was positively associated with body dissatisfaction and this predicted dieting behaviours. In the same way as Butzer and Kuiper (2006), this suggested that higher SCC could buffer against the internalisation of body ideals, particularly for women.

To extend this research, Vartian and Dey (2013) investigated the relationship between SCC, the internalisation of thin body ideals, social comparisons and body

dissatisfaction in 278 undergraduate females residing in Australia. In support of Campbell et al. (1996), a negative association was found between SCC, the internalisation of thin body ideals and the frequency of social comparisons. Furthermore, the internalisation of thin body ideals was found to mediate the relationship between SCC and body dissatisfaction. In response, it was suggested that SCC could be a useful factor to target when working therapeutically, as it might help to reduce social comparisons and the internalisation of body ideals. However, due to the cross-sectional design, a linear relationship between the variables cannot be assumed, and the findings also demonstrated the importance of challenging wider discourses around body image ideals.

1.8.2. Psychological wellbeing

Three studies explicitly measured psychological wellbeing. Ritchie, Sedikides, Wildschut, Arndt, and Gidron (2011) examined whether SCC mediated the relationship between stressful life events and wellbeing, which was measured using the Life Satisfaction Scale (Diener, Emmons, Larson, & Griffin, 1985). This was investigated across three studies whereby stress was operationalised as recent hassles, the perception of life as meaningless, and the discontinuity between past and present selves. The first study involved 221 participants who responded to an online survey in the UK, the US, and Canada, whilst the second and third studies included undergraduate students from the University of Missauri and the University of Southampton (n = 127 and 77) respectively. In support of SCC serving a protective function, a significant and positive correlation was found between SCC and wellbeing, and SCC was found to fully or partially mediate the relationship between stressful life events and wellbeing across the studies. These findings suggested that higher SCC might play an important role in buffering the negative impact of stressful experiences. It was suggested that future research could build on the findings by exploring the associations using broader conceptualisations of wellbeing (e.g., focusing on both hedonic and eudaemonic aspects).

In a similar vein, Hasson-Ohayon, Mashiac-Eizenberg, Elhasid, Yanos, Lysaker, and Roe (2014) explored the relationship between SCC and subjective 'recovery' in 180 individuals who had received a diagnosis of 'schizophrenia' in Israel. Subjective recovery was measured using the Recovery Assessment Scale (Giffort, Schmook, Woody, Vollendorf, & Gervain, 1995), which measured quality of life, hope and empowerment. The subjective meaning in one's life and self-stigma was also measured. Self-stigma was defined as the extent to which stigmatising attitudes surrounding psychiatric diagnoses are internalised, which overlaps with the construct of internal shame. A negative association was found between SCC and self-stigma. Furthermore, self-stigma was negatively associated with meaning in life, whilst SCC was positively associated with meaning in life. Moreover, a positive association was found between meaning in life and 'recovery,' and the relationship between SCC and 'recovery' was mediated by self-stigma and meaning in life. These findings were replicated by Hasson-Ohayon, Mashiac-Eizenberg, Lysaker and Roe (2016) who found a negative association between self-stigma, SCC, hope and 'recovery' in 170 individuals who had received a diagnosis of 'schizophrenia' in Israel. In response, it was recommended that individuals could be supported to develop a more coherent self-concept as a way of increasing quality of life, hope and empowerment. The findings also suggested that interventions aimed at tackling stigma and promoting alternative conceptualisations of diagnoses are of equal importance.

1.8.3. Early life experiences

Three studies explored the relationship between early life experiences and SCC. In undergraduate student samples from the US (n = 166) and Norway (n = 233), Perry, Silvera, Neilands, Rosenvinge, and Hanssen (2008) investigated the relationship between SCC and scores on the Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979) and the Eating Disturbance Scale (EDS; Rosenvinge, Perry, BjØrgum, Bergersen, Silvera, & Holte, 2001). Locus of control was also investigated using the Internal, Powerful Others and Chance Scale (Levenson, 1974). A negative association was found between SCC and early experiences of low warmth and high levels of overprotectiveness. Furthermore, SCC was found to mediate the

relationship between early life experiences and scores on the EDS. This supported Vartian and Dey's (2013) assertion that SCC could be useful to consider when working therapeutically. When explaining the findings, the researchers drew on the hypothesis by Campbell et al. (1996) that individuals with a confused sense of self might be more inclined to draw on external information to increase SCC (e.g., thin body ideals in Western cultures).

To investigate this, Vartanian, Froreich and Smyth (2016) investigated associations between early adverse experiences using the Risky Families Questionnaire (RFQ; Taylor, Lerner, Sage, Lehman, & Seeman, 2004), SCC, the internalisation of body thin ideals, and body dissatisfaction in female participants residing in Australia (n = 355) and America (n = 442). Across both samples, a negative association was found between early adverse experiences and SCC. In the same way as Vartanian (2009) and Vartanian and Dey (2013), SCC was found to be negatively associated with the internalisation of thin body ideals, and a positive association was found between the internalisation of thin body ideals and body dissatisfaction. Furthermore, SCC mediated the relationship between early adverse experiences and body dissatisfaction in both samples.

Similarly, Evans, Reid, Preston, Palmier-Claus and Sellwood (2015) examined the association between childhood trauma as measured using the Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998), SCC and dissociation in a sample of 29 individuals who had received a diagnosis of 'psychosis', and 31 individuals who had never received a psychiatric diagnosis. Participants who had received a diagnosis reported significantly more childhood trauma in the form of emotional abuse, physical abuse and emotional neglect, and this was associated with lower SCC. Furthermore, when the data from the two groups was merged, SCC was found to mediate the relationship between total childhood trauma and psychosis. It was concluded that childhood trauma disrupted the development of a coherent sense of self, and this was related to higher levels of distress. Linear assumptions, however, cannot be drawn from the study and the relationship between the variables is likely

to be complex and reciprocal (e.g., the experience of distress labelled as 'psychosis' could also contribute to lower SCC).

1.8.4. Summary of Literature Review II

Lower SCC was consistently found for those who had received a psychiatric diagnosis and those who scored higher on symptom based measures. This supported the importance of measuring structural aspects of self-concept within clinical research (Stopa, 2009). In contrast to the studies investigating SMs, three studies explicitly measured psychological wellbeing. Across these studies, a positive association was found between SCC and wellbeing.

An important finding that emerged was higher SCC served a protective function for the experience of distress and wellbeing. This resulted in a number of studies recommending that SCC could be a useful factor to consider when working therapeutically (e.g., with individuals who experience body dissatisfaction and high anxiety in social situations). The association between lower SCC and other symptom based measures (e.g., GAD, depression) suggested it could be useful to consider across a range of psychological distress. Furthermore, three studies found a significant and negative association between adverse childhood experiences and SCC. Reviewing these studies demonstrated a clear gap in the literature, as the association between early shaming experiences and SCC had not been investigated.

1.9. Rationale for the study

The two reviews identified clear gaps within the current literature. A consistent finding within the first review was SMs are associated with higher levels of shame and distress, when the memory contained traumatic features and became central to one's self-concept. The review also demonstrated the integral role of self-concept in the experience of shame, and the importance of attending to key aspects of SMs (e.g., who the individual felt shamed by) in research and clinical work.

According to Stopa (2009), structural aspects of self-concept have been largely overlooked within clinical psychology, and have yet to be considered in the experience of shame memories and shame. Within the literature, SCC demonstrated the most significant associations with psychological distress and wellbeing. SCC was also consistent with Gilbert's (1995) assertion that a less coherent sense of self would be associated with psychological distress.

The second literature review provided further support for the usefulness of exploring SCC in the context of Gilbert's (1998) model of shame. In the same way that shame is considered a transdiagnostic process, lower SCC was found to be an important construct across psychiatric diagnoses and higher scores on a range of symptom based measures. Furthermore, Gilbert's (1998) model of shame and SCC both emphasised the importance of social comparisons in shaping one's self-concept and the potential problems associated with this (e.g., experience of external and internal shame, and the internalisation of societal ideals). Finally, in the same way as compassion, SCC was found to serve a protective function when focusing on measures of distress and wellbeing. This resulted in a number of studies recommending that SCC could be a useful factor to consider within a therapeutic context.

To fill the gaps in the literature, this study aimed to replicate and extend past research by exploring the relationship between the traumatic and centrality features of SMs, current experiences of shame, SCC, and psychological distress and wellbeing.

1.10. Clinical Implications

Through exploring SCC within Gilbert's (1998) model of shame, this study hoped to further elucidate the associations between SMs, self-concept, psychological distress and wellbeing. This holds strong clinical utility given the transdiagnostic nature of early shaming experiences and high levels of shame. Furthermore, this study hoped

to begin the process of exploring whether SCC could be useful to consider when working therapeutically with individuals who experience high levels of shame, particularly when compassion is not experienced as a meaningful or helpful construct.

1.11. Research Questions

The study will be based on the following research questions. Please note that the majority of variables have been grouped under three headings (shame memories, shame and self-concept) on the basis that they are measuring different aspects of the same overarching construct.

To replicate previous research:

Research Question 1: Are the following variables significantly associated with psychological distress?

-Shame memories: a) traumatic features b) centrality features
-Shame: a) external b) internal
-Self-concept: a) self-concept clarity b) self-esteem

To extend previous research:

Research Question 2: Are the following variables significantly associated with psychological well-being?

-Shame memories: a) traumatic features b) centrality features
-Shame: a) external b) internal
-Self-concept: a) self-concept clarity b) self-esteem

Research Question 3: Is there a significant association between self-concept clarity and the following variables?

-Shame memories: a) traumatic features b) centrality features

-Shame: a) external b) internal

Research Question 4: Are there significant group differences between attachment and non-attachment SMs on the following variables?

-Shame memories: a) traumatic features b) centrality features

-Shame: a) external b) internal

-Self-concept: a) self-concept clarity b) Self-esteem

-Psychological distress

-Psychological wellbeing

Research Question 5: Does self-concept clarity independently predict psychological distress beyond the following variables?

-Shame memories: a) traumatic features, b) centrality features

-Shame a) external b) internal

-Self-esteem

Research Question 6: Does self-concept clarity independently predict psychological wellbeing beyond the following variables?

-Shame memories: a) traumatic features, b) centrality features

-Shame: a) external b) internal

-Self-esteem

2. METHOD

2.1. Overview

This chapter will firstly consider the epistemological position underpinning the study. This will be followed by details about the design, and the key ethical issues. A detailed outline of the methodology will be provided, and the chapter will close with a synopsis of the analytic strategy that will be employed.

2.2. Epistemology

Epistemology is defined as "the study of the nature of knowledge and the methods of obtaining it" (Burr, 2003 p. 92). Epistemological positions are considered to fall on a continuum from a realist to a social constructionism position. Realist knowledge is underpinned by ontological realism, as it attempts to explore processes, which are assumed to exist independently from the researcher. Direct realists assume knowledge can be directly gathered through scientific inquiry (e.g., through observation). This perspective is part of positivism, which attempts to discover universal facts. An example is the medical conceptualisation of psychological distress, which continues to dominate psychiatric and clinical psychology practice. A 'strong' social constructionism position, in contrast, is underpinned by relativism, which attempts to understand how reality is constructed through discursive actions (Burr, 2003).

Critical realism falls between a direct realist and social constructionism perspective (Pilgrim 2015; Pilgrim & Bentall, 1999). This position was introduced by Bhasker during the 1970's, and has since been adopted by many theorists (e.g., Elder-Vass, 2010; Sayer, 1997). In the same way as direct realists, it assumes that a material world exits independently from the researcher and can be investigated. However, it is acknowledged that scientific enquiry is not a direct reflection of 'reality' but is

influenced by the social, historical, political and cultural context in which the activity is situated.

The current study adopted a critical realist epistemological position as it assumed that the experience of participants was 'real' (e.g., early shaming experiences and the experience of psychological distress), and can be measured (e.g., through self-reported questionnaires). However, it was acknowledged that the measures used to investigate the experiences had emerged within a particular historical, social and cultural context. This informed the critical approach that was adopted towards psychiatric diagnoses, and the decision to adopt a dimensional conceptualisation of distress whilst including self-reported psychological distress (as detailed in sections 1.2.2.1 and 2.6.1) respectively. Furthermore, as detailed in sections 1.2.1 and 1.3, it was acknowledged that the experience of participants' could not be understood outside of their cultural and social contexts (e.g., social comparisons in the experience of shame, and self-concept being shaped by wider social and cultural contexts).

2.3. Design

Based on the epistemological position and the aims of the study, a cross-sectional quantitative design was utilised. In the same way as the research that was reviewed in the Introduction chapter, self-report questionnaire measures were used. To maximise recruitment potential, the questionnaires were formatted to allow for online completion. To strengthen the design of the study by reducing order effects, the questionnaires were formatted to appear in a random order. Additionally, the researcher gave participants the opportunity to pause the survey and return to it to minimise missing data.

LimeService (2016) was chosen as the hosting platform for the online survey as it contained the necessary features detailed above, whilst ensuring the data was collected in a secure way. It also provided a free platform to develop the survey, and

the responses could be easily exported to other applications for the purpose of data analysis. Other platforms were considered, such as Google Forms and SurveyMonkey. Google Forms, however, had less robust security settings and SurveyMonkey had high cost implications for which there were no funds.

2.4. Ethical Considerations

The details of the study were submitted to the University of East London Ethics Committee on 23rd April 2016. The reviewer asked for further information regarding the recruitment process, the questionnaires and the prize draw (see Appendix C & D). The study was approved on 22nd June 2016 (see Appendix E) and was designed to ensure it was compatible with the Code of Human Research Ethics (BPS, 2010).

2.4.1. <u>Informed Consent</u>

To ensure participants were provided with sufficient information to provide informed consent, the survey began with an information sheet (see Appendix F), which the participants were encouraged to save and/or print for their records. The contact details of the researcher and their Director of Studies (DoS) were included, and participants were encouraged to make contact if they wanted to find out further information. Participants were also informed they could withdraw from the study at any time without providing a reason by closing the survey.

The information sheet was followed by a consent form (see Appendix G). The participants could not continue with the online survey unless they indicated their consent to participate. In keeping with BPS guidance (2017), participants needed to press a 'submit' button at the end of the survey to ensure their responses were recorded. This gave participants another opportunity to withdraw from the study and was explicitly communicated on the information sheet as implying consent to use their data.

2.4.2. Psychological Distress

As detailed in the information sheet, participants were aware that taking part in the study would involve recalling and answering questions about a shaming experience (a shame memory) from their own childhood or adolescence via a secure online survey. They were also aware that taking part would involve answering questions about their current experiences, emotions, and how they view themselves (i.e., self-concept). The participants were informed of the potential risks associated with this (e.g., becoming aware of thoughts and feelings they might not have previously attended to). It was hoped this would enable potential participants to decide if taking part in the study would be too upsetting or distressing.

In recognition of the potential distress, 'sources of support,' including 24 hour helplines (see Appendix H) were provided at the start (straight after the consent form) and end (as part of the debrief sheet) of the online survey to ensure it was available to participants who did not complete the survey. Participants were encouraged to use the 'sources of support' and thus seek support if they felt distressed. They were also encouraged to save and/or print the information to enable them to refer to it at a later time if needed. Additionally, participants were given the option of contacting the researcher and/or their DoS if they felt distressed. In the same way as face-to-face contact, this relied on participants communicating that they were feeling distressed and would like to be supported in some way.

2.4.3. Confidentiality

To ensure anonymity, each participant was assigned an identification number, which was used in the database where the responses from the online survey were recorded. If participants wanted to be included in the prize draw (see section 2.8.3), they were asked to provide a contact detail (e.g., email address). This information was stored in a separate database to ensure the responses to the online survey could not be linked to a specific individual. All information was stored on password protected files that was only accessible by the researcher and their DoS. The personal data collected (e.g., email addresses) was deleted after the winner of the

prize draw was identified and contacted. In accordance with the Data Protection Act (1998), the anonymous questionnaire data will be destroyed after five years.

2.4.4. Debriefing

The online survey ended with a debrief sheet (Appendix I). This summarised the nature of the study and contained the 'sources of support' and contact details for the researcher and their DoS.

2.5. Materials

A number of factors were considered when the measures were selected including their psychometric properties, length and cost. Furthermore, the majority of measures selected had been used by the research group in Portugal. The same measures were used as the study aimed to replicate and extend their research.

2.5.1. Priming for a Shame Memory

The construct of shame was introduced using the descriptions contained in the Shame Experiences Interview (SEI; Matos & Pinto-Gouvevia, 2006). The SEI is a semi-structured interview, which assesses the cognitive, behavioural, motivational and contextual components of shame, in addition to the autobiographical and traumatic elements of a shame memory. The interview begins with a general description of shame, including external and internal shame. Three examples of shaming experiences from childhood and adolescence are then provided. Following this, the SEI is divided into three sections.

In the first section, a significant SM from childhood or adolescence that involved peers, teachers, strangers, or other social agents (a non-attachment SM) is elicited and questions are asked about its phenomenological and memory characteristics. In the second section, a significant shame memory from childhood or adolescence involving an attachment figure (e.g., father, mother or another caregiver) is elicited (an attachment SM) and questions are asked about its phenomenological and

memory characteristics. In the third section, participants are asked to select and describe a positive memory involving attachment figures from their childhood or adolescence, for the purpose of assessing the accessibility of positive memories with attachment figures.

As the current study was interested in exploring shame memories from childhood or adolescence, only the descriptions and examples of shaming experiences contained in the introduction of the SEI were used, and permission was granted from the authors of the SEI to do this. To reduce participant burden, participants were asked to recall one shame memory. Based on the distinction within the SEI, participants were asked to indicate whether the memory involved an attachment figure (e.g., primary caregiver) or non-attachment figure (e.g., peer, teacher). This formed the group analyses that were conducted to answer question 4 (comparing participants who recalled an attachment SM with those who recalled a non-attachment figure). Due to the aims of the study, the third aspect of the SEI was not used in the current study (e.g., asking participants to recall a positive memory involving attachment figures). Consequently, this information will not be reported or analysed in the Results chapter.

As the current study consisted of an online survey, the information from the SEI (i.e., the general description of shame including external and internal shame, and the three examples of early shaming experiences) was provided in a written format instead of the information being communicated as part of an interview. For dissemination purposes, the Portuguese research group had the information translated into English. For the current study, the research group provided the version that had been translated into English. Small grammatical changes, which did not alter the content or meaning of the information were made (see Appendix J).

The information from the SEI always appeared before the questionnaires, as some questionnaires were completed based on the shame memory that was recalled (as

detailed in 2.5.2). The ethical issues associated with the study being completed online and how this was managed is detailed in section 2.4.2.

2.5.2. <u>Shame Memories</u>

Following the same procedure as the research group in Portugal, participants were asked to answer the following two questionnaires using the shame memory they recalled as an anchor for their responses (see Appendix K for the instructions used).

2.5.2.1 *The Impact of Event Scale-Revised (IES-R; Weiss & Marmar, 1997):* This 22-item scale measures distress related to a specific life event and is based on the construct of 'PTSD'. The scale consists of three sub-scales, which measure the main 'symptoms' of 'PTSD' as defined in the Diagnostic and Statistical Manual V (DSM: American Psychiatric Association, 2013). These include: avoidance (e.g., 'I tried not to think about it.'), intrusions (e.g., 'pictures about it popped into my mind'), and hyperarousal (e.g., 'I felt irritable and angry'). Participants are asked to answer the questions based on their experiences over the past week. The scale is an adapted version of the Impact of Event Scale (IES; Horowitz, Wilner, & Alvarez, 1979) and was developed as the IES did not contain a hyperarousal subscale. Scores are rated on a 5 point-likert scale ranging from 0 (not at all) to 4 (extremely), with higher scores indicating greater distress. In the same way as previous studies (e.g., Pinto-Gouveia & Matos, 2011), the total mean score was used in this study. In previous research, the scale has demonstrated good test-retest reliability (r = .89 to .94) and high internal consistency for the total mean score (Cronbach's α = .96) and each subscale (avoidance = .84 to .97; intrusions = .87 to .94; hyperarousal = .79 to .91) (Pinto-Gouveia & Matos, 2011; Weiss & Marmar, 1997).

2.5.2.2. *The Centrality of Event Scale-Short Version (CES-S; Berntsen & Rubin, 2006):* This seven-item scale measures the extent to which a memory of a negative event becomes a key reference point for an individual's self-concept and other experiences in their life. This is the shorter version of the original scale, which consists of 20 items. The scale measures the extent to which the negative event

has: 1) become a reference point for everyday inferences (e.g., 'this event has coloured the way I think and feel about other experiences), 2) become a turning point in life stories (e.g., 'I feel this event has become a central part of my life story'), and 3) become a key component of one's self-concept (e.g., 'I feel that this event has become part of my identity'). Items are rated on a 5-point likert scale ranging from 1 (totally disagree) to 5 (totally agree). Higher scores indicate greater centrality, and no specific time period is offered in the instructions. The scale demonstrated good reliability (α = .88) (Berntsen & Rubin, 2006) and high internal consistency (Cronbach's α = .96) (Pinto-Gouveia & Matos, 2011). The shorter version of the scale was used to reduce participant burden. In the same way as previous research (e.g., Pinto-Gouveia & Matos, 2011), the total score was used.

2.5.3. <u>Current Feelings of Shame</u>

2.5.3.1. *External Shame: Other as Shamer Scale (OAS; Allan, Gilbert & Goss, 1994):* This 18-item scale was developed to measure the construct of external shame. Participants are asked to consider how they believe others view them. Items (e.g., 'others look out for my faults') are rated on a 5-point likert scale ranging from 0 (never) to 4 (almost always), with higher scores indicating greater external shame. No specific time period is offered in the instructions. In the same way as previous research (e.g., Pinto-Gouveia & Matos, 2011), the total score was used in the study. In its original study, the scale demonstrated high internal consistency (Cronbach's α = .93). High internal consistency was also found by Pinto-Gouveia and Matos (2011) and Matos and Pinto-Gouveia (2014) (Cronbach's α = .91 and .93) respectively.

2.5.3.2. *Internal Shame: The Social Comparison Scale (SCS; Allan & Gilbert, 1995):* This 11-item scale measures self-perceptions of social rank using a semantic differential technique. Participants are asked to compare themselves to others using a 10-point scale (e.g., 'In relationship to others I feel: 1= inferior and 10 = superior'). No specific time period is offered in the instructions. The scale was used to measure the construct of internal shame and the total score was used, with lower scores indicating higher internal shame. The scale has demonstrated high internal

consistency in studies that included participants who had received a psychiatric diagnosis (Cronbach's α of .88, .90 and .96) and students (Cronbach's α of .91, .90, and .89) (Allan & Gilbert, 1995; Gilbert, Irons, Olsen, Gilbert, & McEwan, 2005; Gilbert & Miles, 2000).

2.5.4. Self-Concept

2.5.4.1. *The Self-Concept Clarity Scale (SCCS; Campbell et al. 1996):* This 12-item scale was developed to measure the construct of self-concept clarity. Items (e.g., 'my beliefs about myself often conflict with one another') are rated on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree), and some items are reverse scored. Higher scores indicate greater self-concept clarity and no specific time period is offered in the instructions. The scale had demonstrated high internal consistency (Cronbach's α = .80 to .94) (Campbell et al. 1996; Stopa et al. 2010; Vartanian, Froreich & Smyth, 2016) and good test re-test reliability (r = .79) (Campbell et al. 1996).

2.5.4.2. *Rosenberg Self Esteem Scale (RES; Rosenberg, 1965):* This 10-item scale was developed to measure the construct of self-esteem. Items (e.g., 'on the whole I am satisfied with myself') are rated on a 4-point scale ranging from 0 (strongly disagree) to 3 (strongly agree), and some items are reverse scored. Higher scores indicate greater self-esteem and no specific time period is offered in the instructions. The scale had demonstrated good reliability (α ranged from .88 to .90) and high convergent validity (Robbins, Hendin, & Trzesniewski, 2001).

2.5.5 Distress and Well-being

2.5.5.1. *The Depression, Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995):* This 21-item scale consists of three sub-scales, which measure distress based on the constructs of depression (e.g., 'I couldn't seem to experience any positive feeling at all'), anxiety (e.g., 'I was aware of dryness of my mouth') and stress (e.g., 'I found myself getting agitated'). Items are rated on a 4-point likert scale ranging from 0 (did not apply) to 3 (most of the time), with higher scores indicating

greater distress. Participants are asked to answer the questions based on their experiences over the past week.

To enable a more sensitive analysis of the data, scores on each subscale were used in the current study in addition to the total score. The depression, anxiety and stress subscales have demonstrated high internal consistency (Cronbach's α = .97, .92 and .95) respectively. The total score has also demonstrated high internal consistency (α = .93) (Henry & Crawford, 2005). Furthermore, the scale has demonstrated acceptable to excellent concurrent validity (Antony, Bieling, Cox, Enns & Swinson, 1998).

This scale was selected as it is considered a dimensional measure of psychological distress, and the original 42-item scale had been used extensively in the research conducted in Portugal. The shorter version (DASS-21) was used to reduce participant burden. Furthermore, Anthony et al. (1998) found the shorter version had a cleaner factor structure and lower inter factor correlations, compared to the longer version.

2.5.5.2. *The Warwick-Edinburgh Mental Health WellBeing Scale (WEMWBS; Tennant, Hiller, Fishwick, Plat, Joseph, Weich, Parkinson, Secker, & Stewart-Brown, 2007):* This 14-item scale measures the construct of psychological well-being. Items (e.g., 'I've been feeling optimistic about the future') are rated on a 5-point likert scale ranging from 1 (none of the time) to 5 (all of the time), with higher scores indicating greater well-being. The total score was used in the study. The scale has demonstrated good content validity and high internal consistency in student and community samples (Cronbach's α = .89, .91 and .90) respectively (Stewart-Brown & Jonmohamed, 2008; Taggart, Friede, Weich, Clarke, Johnson & Stewart-Brown, 2013; Tennant, Fishwick, Plat, Joseph, Weich, Parkinson, Secker, & Stewart-Brown, 2007). This scale was selected as it covers both hedonic and eudaemonic perspectives of well-being.

2.5.6. <u>Alternative Questionnaires</u>

2.5.6.1. *Internal Shame*: The Experience of Shame Scale (Andrews, Qian, & Valentine, 2002) was considered. However, the scale was used and subsequently critiqued by Matos and Pinto-Gouveia (2010), Pinto-Gouveia and Matos (2011) and Matos, Pinto-Gouveia and Gilbert (2013), as some items seem more relevant to the construct of external shame (e.g., 'have you worried about what other people think of the sort of person you are?') The Internalised Shame Scale (Cook, 1994, 2001) was also considered but it had high cost implications.

2.5.6.2. *Psychological Wellbeing:* The Psychological Wellbeing Scale (Ryff & Keyes, 1995) and the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) were reviewed. However, these scales focused only on eudaemonic and hedonic wellbeing respectively. Furthermore, the Psychological Wellbeing Scale (Ryff & Keyes, 1995) consisted of 54-items, which was deemed too long for the current study. The 29-item Oxford Happiness Questionnaire (Hills & Argyle, 2002) was also considered. However, the measure was critiqued by Kashdan (2004) who argued the items were not underpinned by a clear definition of happiness.

2.6. Participants

2.6.1. <u>Inclusion Criteria</u>

The inclusion criteria aimed to be as broad and inclusive as possible. The inclusion criteria and the rationale underpinning it are provided below.

➢ As the study aimed to explore the impact of SMs recalled from childhood or adolescence, adults of a working age (18-65) were recruited. This age range was chosen as the study aimed to replicate and extend past research, which had focused on working aged adults.

➢ As the study aimed to explore the relationship between SMs, SCC, psychological distress and well-being, individuals who experience and who

did not experience psychological distress were recruited. Psychological distress could be identified through a psychiatric diagnosis (e.g., depression) or through self-report (i.e., an individual experiences distress but has not received a psychiatric diagnosis). Self-reported distress was included as part of the demographic information as the researcher recognised the limitations associated with psychiatric diagnoses and thus adopted a dimensional approach (as detailed in sections 1.2.2.1 and 2.2).

➢ As high levels of shame are considered a transdiagnostic process, restrictions were not placed on the form of distress participants could experience.

➢ Participants needed to have some fluency in English to understand and respond to the information contained in the survey (e.g., providing informed consent), as it was not feasible to get the information translated into different languages.

2.6.2. <u>Recruitment</u>

Participants were recruited via opportunity sampling. Based on the broad inclusion criteria, a range of forums were used to ensure the recruitment process was as exhaustive as possible. Social media platforms (e.g., Facebook, Twitter and Reddit) were the main sources of recruitment and participants were encouraged to 'share' the survey with others in their social network. The study was also advertised on websites that post information about research studies (e.g., online psychology research).

As the study hoped to recruit individuals experiencing psychological distress, it was also advertised on online mental health charity forums. This involved contacting the charities and writing a brief description about the study to be placed on their websites (see Appendix L & M). The researcher also hoped to recruit participants from the student population at the University of East London (see Appendix D). Difficulties, however, were experienced around establishing a clear recruitment

strategy. Attention was thus focused on recruiting participants more widely (e.g., via social media).

2.7. Pilot Phase

The researcher completed a pilot phase with five participants (3 females and 2 males) ranging from 27 to 63 years ($M = 45$ years) in their social network. One participant indicated they experienced psychological distress in the form of high anxiety. To check its accessibility, the survey was completed on a range of devices (1 = smartphone; 1 = tablet 1 = laptop; 2 = PCs). As the items on the standardised questionnaires could not be changed, participants were asked to comment on the way the online survey was formatted and whether the instructions were clear.

It took participants approximately 30 minutes to complete the survey and no difficulties were experienced with accessing or completing the questionnaires. Based on the feedback received, changes were made to the way the survey was formatted (e.g., font size). All participants felt the questions in the survey were appropriate and thought the stop/start function was a particularly useful option.

2.8. Procedure

All participants accessed the same online survey. The protocol as experienced by the participants is detailed below.

2.8.1. Informed Consent

As detailed in section 2.4.1, the online survey began with an information sheet, which was followed by a consent form. After indicating their consent, participants were asked if they would like to be included in a prize draw for the opportunity to win a £20 Amazon voucher in appreciation of their time. Participants indicated their consent by providing a contact detail (e.g., email address). An Amazon voucher was

chosen as this gave participants the opportunity to choose from a variety of items instead of the voucher being confined to purchasing specific items.

2.8.2. Information Collected

After participants indicated their consent and provided a contact detail if applicable, demographic information was collected (see Appendix N). This was followed by the description of shame contained in the SEI (Matos & Pinto-Gouveia, 2006) (see section 2.5.1). The participants were then asked to recall a SM and indicate whether the memory involved an attachment figure or another person (e.g., a teacher, friend). As detailed in section 2.5.1, this was based on the distinction between attachment and non-attachment SMs contained in the SEI and previous research (e.g., Matos & Pinto-Gouveia, 2014). This formed the group analyses that were conducted to answer question 4 (comparing participants who recalled an attachment SM with those who recalled a non-attachment SM). Following the description of shame, all questionnaire measures appeared in a random order to minimise order effects. The online survey ended with a debrief sheet, which contained the 'sources of support' that participants could access if needed.

2.8.3. Prize Draw

The participants who wanted to be included in the prize draw were assigned a number, and a random number generator function was used to identify the winner of the £20 Amazon voucher. The winner of the voucher was contacted via the contact detail provided.

2.9. Analytic strategy and sample size requirements

The data was analysed using the Statistical Package for the Social Sciences (SPSS) version 23 (IBM, 2016). Descriptive statistics were computed for the demographic information and each questionnaire measure. Correlational analyses were conducted to explore the relationship between the constructs. This was informed by questions 1, 2, and 3 (see section 1.11). According to G*Power (Erdfelder, Faul, &

Buchner, 1996), 88 participants were required for moderate relationships to be detected at a power of .90. To answer question 4, a Multivariate Analysis of Variance (MANOVA) was conducted. According to G*Power (Erdfelder, Faul, & Buchner, 1996), 200 participants were required to detect group differences at a power of .90.

Two hierarchical multiple regressions were subsequently conducted, which included six predictor variables in each analysis. This was based on research questions 5 and 6. Cohen and Cohen (1975) suggested 10 participants per variable is sufficient when there are at least six predictor variables and Park and Dudycha (1974) suggested 15 participants per variable is sufficient. This would equate to a minimum sample of 60 and 90 participants respectively. To detect a moderate effect size when testing the overall fit of the model, Green (1991) suggested that the minimum sample size should be $50 + 8k$, where k is the number of predictor variables. When testing individual predictor variables, Green (1991) argued that a minimum sample size should be $104 + k$. This equated to a minimum sample of 98 and 110 participants respectively. However, based on the sample size required for the MANOVA, the study aimed to recruit a minimum of 200 participants.

3. RESULTS

3.1. Overview

This chapter will focus on the sample characteristics and the data screening procedures that were conducted. This will be followed by the statistical analyses and research findings being considered for each research question in turn.

3.2. Sample characteristics

3.2.1. 'Completers' and 'non-completers'

Four hundred and fifty-two participants accessed the online survey. Sixty-five participants (14.38%) closed the survey after reading the information page, whilst eighty-one participants (20.93%) consented to take part but did not provide demographic information or complete any questionnaire measures. Of the remaining three hundred and six participants, two hundred and twenty-seven (74.18%) completed the online survey. Seventy-nine participants (26.30%) closed the survey before reaching the end, out of which thirty-six (45.57%) completed some questionnaire items.

To reduce the likelihood of biased conclusions, the demographic information for 'completers' (n = 227) and 'non-completers' (n = 79) was compared to identify potential relationships between observed variables and the likelihood of participants completing or not completing the survey (Graham, 2009; Schafer, 1999; Sinhary, Stern, & Russell, 2001). When comparing age, the non-parametric Mann Whitney U Test was conducted as the variable consisted of interval data that was not normally distributed (see Appendix O) (Field, 2009). Chi-Square tests of independence were used to compare the remaining variables as the data was categorical (Field, 2009). A summary of the information is presented below.

➢ The median age for 'completers' and 'non-completers' was 29 years and 28 years respectively, and the difference between the groups was non-significant (U = 8949.50, p = .98, r = -.001).

➢ The majority of participants were female across both groups (81.5% of 'completers' and 83.54% of 'non-completers') and a non-significant association was found between gender and the completion of the survey ($\chi2(1)$ = .35, p = .56, phi = .03).

➢ A higher proportion of 'completers' identified as White British (70.04% of 'completers' compared to 62.03% of 'non-completers'). However, the association between ethnicity and the completion of the survey was non-significant ($\chi2(1)$ = 1.09, p = .30, phi = .06).

➢ A higher proportion of 'completers' indicated they had received a psychiatric diagnosis (47.58% of 'completers' compared to 35.44% of 'non-completers'). However, a non-significant association was found between participants having a psychiatric diagnosis and the survey being completed ($\chi2(1)$ = 2.92, p = .09, phi = -.10).

➢ A similar proportion of 'completers' and 'non-completers' indicated they had experienced psychological distress in the absence of a psychiatric diagnosis (28.19% of 'completers' and 27.85% of 'non-completers'), and a non-significant association was found between the experience of psychological distress and the completion of the survey ($\chi2(1)$ = .004, p = .95, phi = .004).

➢ A similar proportion of participants were currently taking psychotropic medication (35.9% of 'completers' and 38.3% of 'non-completers), and a non-significant association was found between the use of psychotropic medication and the completion of the survey ($\chi2(1)$ = .09, p = .76, phi = .02).

> A similar proportion of participants indicated they were currently accessing therapy (14.54% of 'completers' and 15.19% of 'non-completers'), whilst a higher proportion of 'completers' indicated they had accessed therapy in the past (46.70% of 'completers' compared to 34.18% of 'non-completers'). Non-significant associations were found between the survey being completed and the current access of therapy ($\chi2(1)$ = .36, p = .55, phi = .04) and the access of therapy in the past ($\chi2(1)$ = 1.83, p = .18, phi = -.08).

3.2.2. Missing data

Missing data was handled using list wise deletion, which involved data being removed for participants who had one or more missing values (Enders, 2010). Whilst there are limitations associated with this technique (Allison, 2001; Enders, 2010; Graham, 2009; Sinharay, Stern, & Russell, 2001), it was deemed the most appropriate method as participants were informed they had the right to withdraw from the study at any point by closing the online survey or not submitting their responses, which meant their data would be deleted. Furthermore, the cases that were removed had information missing from every item on at least two questionnaire measures, which resulted in the use of imputation methods being unfeasible.

The use of list wise deletion resulted in the data from the thirty-six participants who had completed some questionnaire items being removed. The complete data from seven participants was also removed as they did not meet the inclusion criteria (five participants were under the age of eighteen, and two were over the age of sixty-five). Two hundred and twenty participants were thus included in the final sample.

3.2.3. Demographic Information

As detailed in table 1, the participants ranged from 18-63 years (*M* = 32.03, *SD* = 10.82), and the majority of participants identified as being female and White British. Table 2 contains information about the experience of psychological distress within the sample. As illustrated, there was a roughly even spread of participants who had received a psychiatric diagnosis and those who had not.

Information pertaining to the psychiatric diagnoses and the self-reported distress are contained in appendix P. In summary, the participants reported a wide range of psychiatric diagnoses that could be categorised under mood, anxiety, eating, psychotic and personality 'disorders'. Forty-four participants (42%) indicated they had received one formal diagnosis, thirty-seven (35%) had received two formal diagnoses, and eighteen (17%) had received three or more diagnoses. The most frequently reported diagnoses were depression (24%) and depression and anxiety (25%). Similarly, high anxiety (23%) and depression/low mood (16%) were the most frequently self-reported distress.

Table 1. Demographic information (n = 220)

Characteristic	N	%
Age (in years) _M_ = 32.03 _SD_ = 10.82		
18-24	61	27.73
25-34	92	41.82
35-44	27	12.27
45-54	31	14.09
55-65	9	4.09
Gender		
Female	177	80.41
Male	38	17.27
Female with male traits	1	0.45
Gender-queer	1	0.45
Mostly female	1	0.45
Transgender	1	0.45
Not specified	1	0.45
Ethnicity		
African	1	0.45
Bangladeshi	3	1.36
Caribbean	2	0.91
Chinese	6	2.73
Indian	6	2.73
Irish	13	5.91
Pakistani	3	1.36
White and Asian	5	2.27
White and Black African/Caribbean	4	1.82
White British	155	70.45
Any other background	22	10

Table 2. Experience of psychological distress

Experience	N	%
Psychiatric diagnosis		
No	115	52.27
Yes	105	47.73
Self-reported psychological distress		
No	188	85.46
Yes	32	14.54
Received diagnosis/distress started (n = 137)		
Within the last 12 months	7	5.11
1-3 years ago	15	10.95
4-6 years ago	16	11.68
7-10 years ago	13	9.49
Over 10 years ago	55	40.15
Unable to categorise	15	10.95
Not specified	16	11.68
Taking medication for psychological distress		
No	94	42.73
Yes	56	25.45
Not answered/not applicable	70	31.82
Currently accessing therapy		
No	169	76.82
Yes	31	14.09
Not applicable	20	9.09
Accessed therapy in the past		
No	103	46.82
Yes	105	47.73
Not applicable	12	5.45

3.3. Data distribution

3.3.1. Reliability of the questionnaire measures

The reliability of the questionnaire measures for the current sample was assessed using Cronbach's alpha (α) as a measure of internal consistency. As detailed in table 3, high internal consistency was found for all of the measures, which suggested they were reliable.

Table 3. Cronbach's α for each questionnaire measure

Measure	Cronbach's α
Impact of event	.97
Centrality event	.94
External shame	.95
Internal shame	.94
Self-concept clarity	.90
Self-esteem	.91
DASS: Anxiety	.89
DASS: Depression	.93
DASS: Stress	.87
DASS: Total	.95
WEMWBS	.91

Note. WEMWBS = Warwick-Edinburgh Mental Wellbeing Scale

3.3.2. Parametric assumptions

Exploratory data analyses were conducted to confirm whether parametric tests could be used to analyse the data. This included the mean, standard deviation, skewness, and kurtosis being examined for each variable for the sample as a whole (Field, 2009; Tabachnick & Fidell, 2007). The Shapiro-Wilk test was also conducted, which compared the mean and standard deviation of scores to normally distributed scores. A skewness and kurtosis value of zero demonstrates a variable is normally distributed, whilst a non-significant finding (p >.05) in the Shapiro-Wilk test indicates the sample is not significantly different from a normal distribution (Field, 2009). The scores are presented in table 4.

Table 4. Exploratory data analysis

Variable	M	SD	Skewness	Kurtosis	Shapiro Wilk
Impact of event	1.16	22.35	3.80	2.08	.00
Centrality event	19.90	8.41	0.23	-3.52	.00
External shame	31.94	14.61	1.74	-0.97	.05
Internal shame	50.51	19.69	-0.32	-1.46	.06
Self-concept clarity	33.13	10.64	1.77	-2.04	.00
Self-esteem	15.61	6.46	-0.60	-1.34	.13
DASS: Anxiety	5.47	5.21	5.84	0.03	.00
DASS: Depression	8.01	6.24	2.77	-2.95	.00
DASS: Stress	9.07	5.04	1.63	-1.53	.00
DASS: Total	22.55	14.86	3.27	-1.75	.00
WEMWBS	42.62	10.36	-2.27	-1.04	.00

Note. WEMWBS = Warwick-Edinburgh Mental Wellbeing Scale

The Shapiro-Wilk test suggested that all variables apart from internal shame and self-esteem were significantly different from the normal distribution. However, Field (2009) recommended that the Shapiro-Wilk should be used alongside measures of skewness, kurtosis, and graphical representations (e.g., histograms, Q-Q plots) as small deviations from the normal distribution in larger samples (n = 200 or above) can result in the Shapiro-Wilk test being significant. For a sample size of two hundred and twenty participants, Field (2005) and Kim (2013) recommended that skewness and kurtosis scores below a threshold of 3.29 are acceptable. On this basis, the impact of event and the anxiety subscale belonging to the DASS-21 would be considered positively skewed.

When examining skewness, Tabachnick and Fidell (2013) emphasised the importance of detecting possible univariate outliers, which are considered extreme scores on one variable. Univariate outliers can be examined by the scores on each variable being converted to Z-scores, with scores greater than 3.29 (p <.001) being considered outliers (Tabachnick & Fidell, 2013). Following this process, no significant outliers were found (see Appendix Q). In support, the histograms suggested that the degree of skewness for the impact of event and the anxiety

subscale was influenced by the range of scores instead of extreme scores (see appendix R).

Wilcox (2013) recommended that attempts should be made to transform skewed variables as this can lead to the standard error of the sample mean becoming inflated. Transformation techniques, however, have been criticised as they can lead to difficulties when interpreting research findings (Feng, Wang, Chen, Lu, & Tu, 2014). The use of non-parametric tests was also considered but not opted for as they are deemed less sensitive compared to parametric tests, and the majority of variables in the study did not pose a problem for normality (Field, 2009).

To mitigate against the impact of skewed variables, the technique of bootstrapping was used (Field; 2009, Mooney & Duval, 1993; Stine, 1989). Bootstrapping calculates standard errors and confidence intervals, which enables conclusions to be drawn about the sampling distribution (Efron & Tibshirini, 1993; Field, 2009). Within the study, the technique of bootstrapping (based on 1000 bootstrap samples and 95% confidence intervals) was used across all analyses.

3.4. Data Analysis

Pearson's correlation coefficients were conducted to explore the strength, direction and significance of the relationships between the variables. This was informed by the first three research questions. The correlations between the variables are contained in table 5, whilst Appendix S contains the confidence intervals that were derived using the method of bootstrapping. As several correlations were being examined, Bonferroni correction was used to reduce the likelihood of type I errors being made (Field, 2009; Field, Miles & Field, 2012). Consequently, a correlation coefficient was deemed significant if p was $< .001$. This was based on a p value of .05 being divided by the number of tests, which was 66 correlation coefficients in this case.

Theoretically, the age of participants might have significantly influenced how vivid the SMs were, with younger participants recalling more vivid memories due to the shaming experience they recalled from childhood or adolescence being more recent. The previous research conducted in Portugal (e.g., Matos and Pinto-Gouveia; 2010; Pinto-Gouveia & Matos, 2011), however, found that the age of participants was not significantly associated with the variables of interest, including how traumatic and central the SMs were rated on the IES-R (Weiss & Marmar, 1997) and the CES (Berntsen & Rubin, 2006). Age was thus not controlled for during statistical analyses. To verify that the age of participants did not significantly alter the correlations between the variables of interest within the current study, partial correlation coefficients that controlled for age were conducted (see Appendix T). This supported the hypothesis that the age of participants was not a significant factor, as the significance of the correlation coefficients remained the same when age was and was not controlled (as detailed in Appendix T and table 5 respectively).

The strength of the relationships within the current study was determined using Cohen's (1988) distinction between weak (r = +/- .10- to +/- 2.9), moderate (r =+/- .3 to +/- 4.9) and strong (r = +/- .50 to +/- 1.0) correlations (Field, 2009). Each research question will be considered in turn below.

3.4.1. <u>Research Question 1: Are the following variables significantly associated with psychological distress?</u>

-Shame memories containing: a) traumatic features b) centrality features
-Shame: a) external b) internal
-Self-concept: a) self-concept clarity b) self-esteem

The bivariate correlations indicated a significant relationship between psychological distress and the variables measuring SMs, shame and self-concept.

3.4.1.1. Shame memories: Strong and positive relationships were found between SMs containing traumatic elements and the anxiety (r = .68), depression (r = .58), stress (r = .63), and total (r = .69) DASS scores. Similarly, SMs containing centrality features demonstrated a positive and moderate association with the four measures belonging to the DASS (r = .40, .38, .40, and .43) respectively.

3.4.1.2. Shame: Strong and positive correlations were found between external shame and the four measures belonging to the DASS (r = .62, .70, .63, and .72) respectively. Significant negative associations were found between internal shame and the four measures belonging to the DASS (r = -.39, -.61, -.48, and -.56) respectively. This indicated that higher levels of internal shame (as indicated by lower scores on the measure) was associated with higher distress, with the strongest association being found for the depression subscale.

3.4.1.3. Self-concept: Moderate to strong negative correlations were found between SCC and the four measures belonging to the DASS (r = -.44, -.50, -.50, and -.53) respectively. Strong negative associations were found between SE and the four measures, and the strongest association was found with the depression subscale (r = -.50, -.76, -.51, and -.67) respectively.

Table 5. Correlations between the variables

Variables	IES-R	CES	ES	IS	SCC	SE	DASS_A	DASS_D	DASS_S	DASS_T	WEMWBS
IES-R	1										
CES	.67**	1									
ES	.61**	.47**	1								
IS	-.39**	-.34**	-.74**	1							
SCC	-.46**	-.40**	-.57**	.53**	1						
SE	-.50**	-.45**	-.76**	.76**	.58**	1					
DASS_A	.68**	.40**	.62**	-.39**	-.44**	-.50**	1				
DASS_D	.58**	.38**	.70**	-.61**	-.50**	-.76**	.67**	1			
DASS_S	.63**	.40**	.63**	-.48**	-.50**	-.51**	.77**	.72**	1		
DASS_T	.69**	.43**	.72**	-.56**	-.53**	-.67**	.89**	.90**	.91**	1	
WEMWBS	-.45**	-.29**	-.66**	.70**	.51**	.75**	-.50**	-.76**	-.57**	-.69**	1

** Correlation is significant at $p < .001$.

Note. IES-R = Impact of event, CES = Centrality event, ES = External shame, IS = Internal shame, SCC = Self-concept clarity, SE = Self-esteem, DASS_A =Anxiety subscale, DASS_D = Depression subscale, DASS_S = Stress subscale, DASS_T = DASS Total, WEMWBS = wellbeing (Warwick-Edinburgh Mental Wellbeing Scale)

3.4.2. Research Question 2: Are the following variables significantly associated with psychological wellbeing?

-Shame memories containing: a) traumatic features b) centrality features

-Shame: a) external b) internal

-Self-concept: a) self-concept clarity b) self-esteem

The bivariate correlations indicated a significant relationship between psychological wellbeing and the variables measuring SMs, shame and self-concept.

3.4.2.1. Shame memories: A moderate and negative relationship was found between SMs containing traumatic elements and wellbeing ($r = -.45$). SMs containing centrality features were also found to be negatively associated with wellbeing, and this association was weak ($r = -.29$).

3.4.2.2. Shame: A strong and negative association was found between external shame and wellbeing ($r = -.66$). Furthermore, a strong and positive association was found between internal shame and wellbeing ($r = .70$). This indicated that lower levels of internal shame were associated with higher wellbeing. When comparing the correlations, internal shame demonstrated a slightly stronger association with wellbeing.

3.4.2.3. Self-concept: A strong and positive correlation was found between SCC and wellbeing ($r = .51$), and between SE and wellbeing ($r = .75$). When comparing the correlations, SE demonstrated a stronger association.

3.4.3. <u>Research Question 3: Is there a significant association between self-concept clarity and the following variables?</u>

-Shame memories containing: a) traumatic features b) centrality features
-Shame: a) external b) internal

The bivariate correlations indicated a significant association between self-concept clarity and the variables measuring SMs and shame.

3.4.3.1. Shame memories: A negative and moderate relationship was found between SCC and SMs containing traumatic elements (r = -.46). SMs containing centrality features was also found to be negatively and moderated associated with self-concept clarity (r = -.40). When comparing the correlations, SMs containing traumatic features demonstrated a stronger association.

3.4.3.2. Shame: A strong and negative association was found between SCC and external shame (r = -.57), and a strong and positive association was found between SCC and internal shame (r = -.53). This indicated that lower levels of internal shame were associated with higher SCC. When comparing the correlations, external shame demonstrated a slightly stronger association.

3.4.4. Research Question 4: Are there significant group differences between attachment and non-attachment SMs on the following variables?

-Shame memories containing: a) traumatic features b) centrality features

-Shame: a) external b) internal

-Self-concept: a) self-concept clarity b) self-esteem

-Psychological distress

-Psychological wellbeing

A multivariate analysis of variance (MANOVA) was conducted to explore possible group differences between participants who recalled an attachment or non-attachment SM. A MANOVA was conducted as it enabled the dependent variables to be explored within one analysis, which reduced the likelihood of type I errors (Stevens, 2001).

The type of SM (attachment or non-attachment) was the independent variable, and the variables measuring SMs, shame, self-concept, psychological distress and psychological wellbeing were the dependent variables. Based on the recommendation by Stevens (1980), Field, Miles and Field (2012) advised that fewer than ten dependent variables should be used as a larger number of variables is likely to reduce the power of the test. In response, the total score on the DASS-21 was used as the measure of psychological distress instead of the individual subscales.

When conducting a MANOVA, a number of assumptions need to be examined (Field, 2009). Information pertaining to the assumptions and how these were examined are summarised below.

3.4.4.1. MANOVA: test assumptions

3.4.4.1.1. *Independence:* Participants should not be part of more than one group as observations within each group must be independent. This assumption was met as

participants were asked to recall one SM and indicate whether the SM involved an attachment or non-attachment figure.

3.4.4.1.2. *Interval measurement:* The dependent variables must consist of an interval measurement, whereby distances between values are of equal measurement. This assumption was met as all measures consisted of interval scales.

3.4.4.1.3. *Sample Size:* As detailed in section 2.9 in the Methods chapter, G*Power was utilised to estimate the minimum sample size required to perform the MANOVA (n = 200). The study met the minimum sample size as n = 220.

3.4.4.1.4. *Linearity and multicollinearity:* A linear but non-perfect relationship between the dependent variables is assumed. As illustrated in table 5, this assumption was met as all dependent variables were significantly correlated with one another and the correlations were below r = .8 (Field, 2009).

3.4.4.1.5. *Multivariate normality:* Tabachnick and Fidell (2013) recommended that Mahaolonabis Distance can be used to detect possible multivariate outliers. Mahaolonabis Distance compares each case against the mean of the remaining cases across all dependent variables. Tabachnick and Fidell (2013) advised that a conservative probability should be used when detecting multivariate outliers (p < .001) as Mahaolonabis Distance can under or overestimate the possibility of outliers. Within the study, two possible multivariate outliers were identified using this method.

Several authors (e.g., Agnuis, Gottfredson, & Joo, 2013; Field, 2009; Ghost & Vogt, 2012; Tabachnick & Fidell, 2013) have argued against the deletion of outliers that are deemed to be part of the intended population. The absence of univariate outliers (see section 3.3) suggested that the scores were part of the intended population instead of the data being entered in error. Tabachnick and Fidell (2013) recommended that the impact of outliers can be assessed through the analyses

being conducted with and without the outliers to assess their influence. Repeating the MANOVA whilst excluding the two possible multivariate outliers did not significantly alter the findings. The two cases were thus included in the analysis.

3.4.4.1.6. *Homogeneity of covariance:* This assumes the correlations between any two variables is the same across both groups. Field (2009) recommended this can be checked through the Levene's and Box's M Tests. The Levene's test examines the null hypothesis that the variance within dependent variables are equal, whilst the Box's M test assesses the assumption that the variance-covariance matrices are equal. Both tests should be non-significant for the assumption to be met. Several authors (e.g., Field, 2009; Nimon, 2012; Tabachnick & Fidell, 2013) have recommended that a conservative probability ($p < .001$) should be used when interpreting Box's M as it is considered a very sensitive test.

Within the study, the Levene's Test was non-significant across all eight variables (with p ranging from .10 to .97). The Box's M test was found to be significant at $p = .002$. However, this was above the conservative probability, which indicated this assumption was tentatively met.

3.4.4.2. MANOVA: Findings

The SPSS output is contained in Appendix U, and the descriptive statistics are presented in table 6.

Table 6. Descriptive statistics

Variables	Attachment (n = 98)			Non-Attachment (n = 122)		
	Mean	SE	CI	Mean	SE	CI
Impact of event	1.98	.16	1.67-2.29	1.35	.14	1.07-1.63
Centrality event	22.52	.82	20.19-24.13	17.80	.73	16.36-19.25
External shame	35.08	1.45	32.22-37.94	29.42	1.30	26.85-31.98
Internal shame	45.88	1.95	42.04-49.72	54.24	1.75	50.80-57.68
Self-concept clarity	31.34	1.07	29.24-33.44	34.57	.95	32.69-36.45
Self-esteem	13.97	.64	12.71-15.23	16.93	.57	15.81-18.06
DASS_Total	25.23	1.49	22.31-28.16	20.39	1.33	17.76-23.01
WEMWBS	39.97	1.02	37.96-41.98	44.75	.92	42.94-46.55

Note. WEMWBS = Warwick-Edinburgh Mental Wellbeing Scale

3.4.4.2.1. Group Differences: The Wilk's Lambda statistic demonstrated a significant multivariate difference between the two groups Wilk's λ = .89 $F(1, 218)$ = 3.28, p = .002, η^2 = .11. Follow-up independent samples t-tests indicated that the groups significantly differed on a number of variables. Bonferroni correction was used to reduce the likelihood of type I errors being made. The group differences were thus deemed significant when the p value was < .006. This was based on the standard *p* value of .05 being divided by the number of follow-up tests, which was 8 in this case (Field, 2009). The term 'conservative p value' will be used to denote the p value of < .006 that was used to interpret whether the group differences could be deemed significant.

When focusing on SMs, significant group differences were found for SMs containing traumatic features $t(218)$ = 2.95, $p < .005$, SE = .21, CI = .21-1.05 and centrality features $t(218)$ = 4.30, $p < .001$, SE = 1.10, CI = 2.55 – 6.88. Examining the means in Table 6 indicated that participants who recalled an attachment SM reported higher

traumatic features (*M* = 1.45) and higher centrality features (*M* = 22.52) compared to those who recalled a non-attachment SM (*M* = .93 and 17.80) respectively.

Significant group differences were also found for external shame *t*(218) = 2.91, *p* = .002, SE = 1.97, CI = 1.82 – 9.50 and internal shame *t*(218) = -3.20, *p* = .004, SE = 2.69, CI = -13.54 - -2.81. Examining the means indicated that participants who recalled an attachment SM reported higher levels of external and internal shame (*M* = 35.08 and *M* = 45.88) respectively, compared to those who recalled a non-attachment SM (*M* = 29.42 and *M* = 54.24) respectively.

When focusing on self-concept, significant group differences were not found for self-concept clarity when using the more conservative p-value (*p* = .03). However, those who recalled a non-attachment SM reported higher self-concept clarity (*M* = 34.57) compared to those who recalled an attachment SM (*M* = 31.34). In contrast, significant group differences were found for SE *t*(218) = -3.47, *p* = .001, SE = .84, CI = -4.57 – -1.37. Examining the means indicated that those who recalled an attachment SM reported lower SE (*M* = 13.97), compared to those who recalled a non-attachment SM (*M* = 16.93).

Significant group differences were not found for psychological distress using the more conservative p-value (*p* = .02). However, those who recalled an attachment SM reported higher levels of distress (*M* = 25.25) compared to those who recalled a non-attachment SM (*M* = 20.39). In contrast, significant group differences were found for psychological wellbeing *t*(218) = -3.49, *p* = .001, SE = 1.39, CI = -7.46 – -1.98, with those who recalled a non-attachment SMs reporting higher levels of wellbeing (*M* = 44.75) compared to those who recalled an attachment SM (*M* = 39.97).

In the same way as the correlation coefficients, the age of participants was subsequently controlled to verify whether it significantly altered the findings of the MANOVA. This was verified by a Multivariate analysis of covariance (MANCOVA)

being conducted whereby age was included as the covariate (see Appendix V). The findings from the MANCOVA demonstrated that the age of participants did not significantly influence the findings, as the Wilk's Lambda statistic continued to be significant when age was controlled Wilk's λ = .89 F(1, 217) = 3.34, p = .001, η^2 = .11.

3.4.5. <u>Research Question 5: Does self-concept clarity independently predict psychological distress beyond the following variables?</u>

-Shame memories: containing a) traumatic features, b) centrality features
-Shame: a) external b) internal
-Self-esteem

A hierarchical multiple regression was conducted to explore this question. Psychological distress (criterion variable) was measured using the total score on the DASS-21 and four steps were used within the analysis.

The order in which the predictor variables were added to the analysis was informed by Gilbert's (1998) biopsychosocial model of shame and past research findings and methodologies (Field, 2009). Based on Gilbert's (1998) hypothesis that SMs lead to current experience of shame (both external and internal), the variables measuring SMs (IES-R and CES) were entered in the first step of the model, and the variables measuring shame (OAS and SCS) were entered in the second step. As the study wanted to explore the unique influence of SCC beyond SE, SE was added to step three, and SCC was added to step four.

Age was not controlled for in the hierarchical multiple regressions as the partial bivariate correlations demonstrated that the age of participants did not have a significant impact on the variables of interest, including psychological distress and wellbeing (as detailed in section 3.4).

3.4.5.1. *Hierarchical multiple regression I: test assumptions*

Multiple regressions rely on a number of assumptions (Field, 2009). Information pertaining to the assumptions and how these were examined are summarised below.

3.4.5.1.1. *Sample Size*: As detailed in section 2.9. in the Methods chapter, a minimum sample size of 110 participants was needed. The study exceeded the minimum sample size as n = 220.

3.4.5.1.2. *Multicollinearity:* It is assumed that the predictor variables measure related but distinct constructs (i.e., no perfect multicollinearity). Using the recommendations of Field (2009), multicollinearity was assessed using the variance inflation factor (VIF) and the tolerance statistic. Myers (1990) cautioned that a VIF value above ten is problematic and Field (2009) recommended that a tolerance value below .1 is indicative of multicollinearity. Multicollinearity was not deemed an issue as the VIF values were all below the value of ten and the tolerance statistics were above .1.

3.4.5.1.3. *Homoscedasticity, independent and normally distributed errors:* This assumption was met as a graph plot of the standardised residuals and predicted values indicated that the residuals were evenly dispersed, and the majority of the points were within the -2 to 2 range, which indicated a normal distribution (see Appendix W). Furthermore, the Durbin Watson test was close to the value of two (2.02), which indicated the residuals were uncorrelated.

3.4.5.1.4. *Outliers:* Casewise diagnostics were examined to detect possible outliers. Field (2009) advised that for a sample size of 200 or more participants, 5% of cases are expected to fall out of the +/- 2 range, and 1% are expected to fall out of the +/- 2.5 range, with cases above three being a cause of concern. Within the study, eight cases (3.36%) were found to have standardised residuals outside of the +/- 2 range, two cases (0.91%) were outside of +/- 2.5, and two cases (0.91%) were above 3. Tabachnick and Fidell (2013) recommended using mahaolonabis distance to detect

possible outliers. For a model containing six predictors, a cut-off score of 20.57 was recommended, with higher scores indicating the presence of outliers. Within the study, three cases had a score above 20.57.

To examine whether the potential outliers were having a large influence on the regression model and parameters, the Cook's distance and DFBeta were examined. Both values were below 1 for all cases, which suggested that no case was having a large and undue influence on the model (Field, 2009). All cases were thus included in the analysis.

3.4.5.2. *Hierarchical Multiple Regression I: Findings*
The findings from the multiple regression are presented in table 7 and are summarised below. The SPSS output is contained in Appendix X.

The characteristics of SMs that were entered in step one contributed significantly to the model $F(2,217)$ = 101.44, $p < .001$, and accounted for 48% of the variance in psychological distress. SMs containing traumatic features was found to be a unique and significant predictor of psychological distress ($p < .001$), whilst SMs containing centrality features was not a unique predictor ($p = .45$).

Step two of the model, which included current feelings of external and internal shame, was found to be significant $F(4,215)$ = 95.21, $p < .001$, and accounted for an additional 15% of the variance in psychological distress. The additional variance accounted for was significant ($p < .001$). External and internal shame were found to be a unique and independent predictor of psychological distress ($p < .01$ and $p < .05$) respectively, with external shame demonstrating greater significance.

Step three of the model, which included SE, was also found to be significant $F(5,214)$ = 84.06, $p < .001$. SE accounted for an additional 3% of the variance in psychological distress, which was significant ($p < .001$). Similarly, when SCC was added in step four, the model was significant $F(6,213)$ = 70.78, $p < .001$. SCC,

however, did not significantly account for any additional variance in psychological distress ($p = .15$).

These findings suggested that SMs containing traumatic features and current feelings of shame, particularly external shame, were significant predictors of higher distress. SE as an evaluative component of self-concept was a significant predictor of lower distress, whilst SCC as a structural component of self-concept did not account for any additional variance in psychological distress beyond the influence of SMs, shame and SE.

Table 7. Hierarchical multiple regression for psychological distress

Model	Variables	R^2	R^2 (Adj)	p value	F Change	B	Beta	Bias	SE	Lower-upper CI
1		.48	.48	.00						
	Constant			.00		12.04		-.02	2.09	7.94-16.32
	Impact of event			.00		.49	0.73	.001	.04	.40-.57
	Centrality event			.45		-.09	-.05	.002	.12	-.32-.16
2		.64	.63		.00					
	Constant			.02		9.74		-.21	4.04	1.60-17.48
	Impact of event			.00		.32	.49	.001	.04	.23-.41
	Centrality event			.06		-.20	-.12	.004	.11	-.41- -.003
	External shame			.00		.41	.40	.001	.07	.27-.54
	Internal shame			.04		-.09	-.11	.002	.04	-.16-.004
3		.66	.66		.00					
	Constant			.00		19.21		-.35	4.71	8.76-27.77
	Impact of event			.00		.32	.47	-.001	.04	.24-.40
	Centrality event			.02		-.25	-.14	.003	.10	-.46- -.04
	External shame			.00		.31	.03	.003	.07	.17-.46
	Internal shame			.91		.004	.006	.001	.04	-.91-.30
	Self-esteem			.00		-.62	-.27	.007	.15	-.91-.30
4		.67	.66		.00					
	Constant			.00		22.47		-.35	5.24	11.38-32.19
	Impact of event			.00		.31	.46	.001	.04	.23-.39
	Centrality event			.01		-.26	-.15	.002	.11	-.47- -.05
	External shame			.00		.29	.29	.005	.07	.16-.45
	Internal shame			.78		.01	.02	.001	.05	.08-.11
	Self-esteem			.00		-.58	-.25	.01	.16	-.87- -.24
	Self-concept clarity			.15		-.11	-.08	-.002	.07	-.27-.03

3.4.6. Research Question 6: Does self-concept clarity independently predict psychological wellbeing beyond the following variables?

-Shame memories: containing a) traumatic features, b) centrality features
-Shame: a) external b) internal
-Self-esteem

In the same way as research question five, a hierarchical multiple regression was conducted. The same procedure was used, and the variables were added to the model in the same way. The DASS-21 total score was replaced with the WEMWBS as a measure of psychological wellbeing.

3.4.6.1. *Hierarchical Multiple Regression II: test assumptions*
The same assumptions were examined, and are briefly summarised below.

3.4.6.1.1. *Sample Size:* As detailed in section 3.4.5.1.1 the study exceeded the minimum sample size required to obtain sufficient power.

3.4.6.1.2. *Multicollinearity:* Multicollinearity was not deemed a problem as all VIF values were below the value of ten and the tolerance statistics were above .1 (Field, 2009).

3.4.6.1.3. *Homoscedasticity, independent and normally distributed errors:* A graph plot of the standardised residuals and predicted values indicated that this assumption was met as the residuals were evenly dispersed and the majority of the points were within the -2 to 2 range (Field, 2009) (see appendix Y). Furthermore, the Durbin Watson test was close to the value of two (2.04).

3.4.6.1.4. *Outliers:* Seven cases (3.18%) were found to have a standardised residual outside of the +/- 2 range, and three cases (1.36%) were outside of +/- 2.5. No case was above 3. Three cases had a mahaolonabis distance score above 20.57, which

indicated the possible presence of outliers. However, the Cook's distance and DFBeta values were below 1 for all cases, which suggested that no case was having a large and undue influence on the model (Field, 2009). All cases were thus included in the analysis.

3.4.6.2. *Hierarchical Multiple Regression II: Findings*

The findings from the multiple regression are presented in table 8, and are summarised below. The SPSS output is contained in Appendix Z.

The characteristics of SMs entered in step one contributed significantly to the model $F(2,217) = 27.93$, $p < .001$, and accounted for 20% of the variance in psychological wellbeing. SMs containing traumatic features was a unique and significant predictor of lower wellbeing ($p < .001$), whilst SMs containing centrality features was not a unique predictor ($p = .88$).

Step two of the model, which included current feelings of external and internal shame, was found to be significant $F(4,215) = 65.74$, $p < .001$, and accounted for an additional 34% of the variance in psychological wellbeing. The additional variance was found to be significant ($p < .001$). Both external and internal shame were unique and independent predictors of psychological wellbeing, with internal shame showing a slightly stronger and positive relationship, whilst external shame demonstrated an inverse relationship.

Step three of the model, which included SE, was also significant $F(5,214) = 70.01$, $p < .001$. SE accounted for an additional 7% of the variance in psychological wellbeing, which was significant ($p < .001$). When SCC was added in step four, the model was significant $F(6,213) = 58.56$, $p < .001$. However, SCC did not significantly account for any additional variance in psychological wellbeing ($p = .33$).

These findings suggested that SMs containing traumatic features and current feelings of external and internal shame were significant predictors of lower

wellbeing. SE as an evaluative component of self-concept was a significant predictor of higher wellbeing, whilst SCC as a structural component of self-concept did not account for any additional variance in psychological wellbeing beyond the influence of SMs, shame and SE.

Table 8. Hierarchical multiple regression for psychological wellbeing

Model	Variables	R^2	R^2 (Adj)	p value	F Change	B	Beta	Bias	SE	Lower-upper CI
1		.21	.20	.00						
	Constant			.00		47.77		.05	1.73	44.45-51.26
	Impact of event			.00		-.21	-.46	.004	.04	-.29- -.13
	Centrality event			.88		.06	.01	-.006	.11	-.20-.21
2		.55	.54		.00					
	Constant			.00		34.01		-.44	3.60	27.42-41.11
	Impact of event			.00		-.09	-.20	.001	.04	-.17- -.02
	Centrality event			.13		.13	.11	-.004	.08	-.05-.30
	External shame			.01		-.15	-.22	.002	.06	-.27- -.04
	Internal shame			.00		.26	.50	.001	.04	.19-.34
3		.62	.61		.00					
	Constant			.00		22.57		.05	3.51	15.97-29.65
	Impact of event			.02		-.08	-.18	.00	.03	-.14- -.02
	Centrality event			.01		.19	.15	-.01	.08	.03-.32
	External shame			.01		-.03	-.22	.002	.05	-.14-.07
	Internal shame			.00		.15	.29	.002	.04	.07-.24
	Self-esteem			.00		.75	.47	-.006	.12	.50-.10
4		.62	.61		.00					
	Constant			.00		20.82		-.17	3.88	13.48-28.48
	Impact of event			.02		-.08	-.17	.002	.03	-.14- -.01
	Centrality event			.01		.19	.16	-.005	.08	.04-.32
	External shame			.62		-.03	-.04	.003	.06	-.13-.09
	Internal shame			.00		.15	.28	.001	.04	.06-.23
	Self-esteem			.00		.73	.46	-.009	.13	.47-.97
	Self-concept clarity			.33		.06	.06	.007	.56	-.04-.18

4. DISCUSSION

4.1. Overview

This chapter will re-visit the aims of the research, and the characteristics of participants who took part in the study. The findings for each research question will then be situated in the context of key psychological theories and past research findings. Following this, the clinical implications and key limitations of the study will be considered. The chapter will end with suggestions for future research.

4.2. Study aims

To address the gaps in the literature, this study aimed to explore the relationship between the traumatic and centrality characteristics of SMs, current experiences of shame (external and internal), SCC, and psychological distress and wellbeing. In doing so, the study aimed to begin the process of exploring if SCC could be useful to consider in the experience of SMs and shame, in response to the challenges associated with developing compassion within CFT.

4.3. Summary of the findings

In support of Gilbert's (1998) model of shame and previous research (e.g., Matos, 2010; Pinto-Gouveia & Matos, 2011), SMs containing traumatic and centrality features were associated with higher levels of current shame (both external and internal), and each of these four variables were associated with higher levels of psychological distress. Moreover, a significant and negative association was found between SCC and distress, whilst a significant and positive association was found between SCC and wellbeing.

In extending previous research, the findings supported the importance of assessing key features of SMs (e.g., who the individual felt shamed by), and the experience of psychological distress and wellbeing in the context of SMs and shame. This was demonstrated through SMs containing traumatic features being a significant predictor of both distress and wellbeing.

Significant and moderate associations were found between SCC and SMs containing traumatic and centrality features and current experiences of shame (both external and internal). This provided tentative support for the usefulness of exploring SCC in the experience of SMs and shame. SCC, however, was not found to be a unique and independent predictor of psychological distress and wellbeing, whilst SE was. This suggested that a global and evaluative component of self-concept (i.e., SE) could be more useful to consider than structural aspects of self-concept (e.g., SCC). However, this finding could have been influenced by the measures used within the study, which will be explored in more detail throughout this chapter.

4.4. Participant characteristics

4.4.1. 'Completers' and 'non-completers'
The tests of significance demonstrated that the 'completers' (n = 227) and 'non-completers' (n = 79) did not significantly differ in terms of the demographic information collected. As the questionnaire measures appeared in a random order to reduce order effects, conclusions around the influence of the measures could not be reached (e.g., if participants were more likely to stop the survey when completing a specific measure). It is possible, however, that the length of the survey was influential, as the 'non-completers' attempted a varied number of questionnaires (ranging from one to six) before stopping the survey.

4.4.2. Final sample
When considering the final sample that was included in the study (n = 220), generalisations need to be treated with caution as 70.45% identified as White British,

80.45% identified as female, and the mean age was 32.03 years. This could have been influenced by the use of opportunity sampling via social media, as the majority of individuals in the researcher's social network are females aged 25-30 years. The large proportion of females could have also been influenced by the mental health charities that advertised the research study, as they predominantly provided support for individuals who had received a diagnosis of an 'anxiety disorder.' Indeed, research has found that females are twice as likely to receive a diagnosis of an anxiety disorder (Blazer, Kessler, & Swartz, 1994; McLean, Asanaani, Litz, & Hofmann, 2011; Ruigomez, Wallander, & Rodriguez, 2009), and several factors have been proposed to account for this including; gender expectations around the expression of distress, and possible biases in the way psychiatric 'disorders' are diagnosed (Harper & Spellman, 2011; McLean & Anderson, 2011).

The most commonly identified diagnoses were 'depression,' and 'depression' with an 'anxiety disorder.' This is in keeping with depression and anxiety 'disorders' being the most commonly diagnosed in the UK (Mental Health Foundation, 2016). Furthermore, a larger number of participants (52%) indicated they had received two or more diagnoses. This supported the high levels of comorbidity that are commonly found in the experience of psychological distress (Kessler, Chiu, Demler, & Walters, 2005; Newton-Howes, Tyrer, Anagnostakis, Cooper, Bowden-Jones, & Weaver, 2010).

4.5. Research Findings

To contextualise the findings, the mean score of each variable for the sample as a whole will firstly be compared to past research. In response to the limitations surrounding the mean as a measure of central tendency (e.g., sensitive to variability and extreme scores), the conclusions will be tentative and the standard deviation (SD) will also be considered.

4.5.1. <u>Mean scores</u>

4.5.1.1. *SMs containing traumatic features:* The mean score on the IES-R (M = 1.16, SD = 22.35) was lower compared to the studies conducted by Matos and Pinto-Gouveia (2010) (M = 3.76, SD= 2.57), and Matos, Pinto-Gouveia and Duarte (2012) (M = .4.77, SD = 2.37), which consisted of 811 students from the University of Coimbra and staff from private institutions and schools, and 292 undergraduate students from the University of Coimbra respectively. This suggested that, on average, participants within the current study experienced less avoidance, intrusions and hyperarousal associated with the SM they recalled.

The lower mean score on the IES-R might have been influenced by the instructions used when administering the scale, as the previous studies asked participants to think of the distress the shaming experience had caused throughout their life instead of using the specific time frame detailed in the original instructions of the measure, which was used in the current study (i.e., based on experiences over the past week). Consequently, it might be that the traumatic elements of SMs were underreported in the current study. However, this finding needs to be treated cautiously as the SD within the current study suggested there was large variability in the scores.

4.5.1.2. *SMs containing centrality features:* The total scores on the CES (M = 19.90, SD = 8.41) was lower in comparison to the study conducted by Pinto-Gouveia and Matos (2011) (M = 48.94, SD = 13.41), which used the same sample as Matos and Pinto-Gouveia (2010) detailed above. This suggested that, on average, the SMs recalled within the current study were less likely to form a reference point for everyday inferences, be a turning point in one's life story, and a key component of one's self-concept. However, the SD being larger in the study conducted by Pinto-Gouveia and Matos (2011) makes it difficult to perform direct comparisons.

4.5.1.3. *External Shame:* The total score on the OAS (M = 31.94, SD = 14.61) was higher compared to the study conducted by Matos and Pinto-Gouveia (2010) (M = 19.76, SD = 9.32) and Matos, Pinto-Gouveia and Duarte (2012) (M = 20.07, SD =

9.20). Overall, this suggested that participants in the current study experienced higher external shame, and thus felt more strongly that they existed negatively in the minds of others and were perceived as inferior. However, this needs to be treated cautiously as greater variability in the scores were found in the current study.

4.5.1.4. *Internal Shame:* The total score on the SCS ($M = 50.51$, SD = 19.69) was lower compared to the studies conducted by Allan and Gilbert (1995) ($M = 64.67$, SD = 11.65), Gilbert (2000) ($M = 59.58$ SD = 14.96), and Gilbert and Miles (2002) ($M = 60.77$, SD = 13.46), which involved student samples. In contrast, the total score was higher compared to the studies conducted by Allan and Gilbert (1995) ($M = 38.90$, SD = 13.47), and Gilbert, Irons, Olsen, Gilbert and McEwan (2006) ($M = 40.63$, SD = 17.46), which included participants who had received a psychiatric diagnosis. On average, the total score might have fell in between these ranges, as the current sample consisted of a fairly even spread of participants who had and who had not received a psychiatric diagnosis or experienced self-reported psychological distress. The SD being larger in the current study supported the variability in the scores reported.

4.5.1.5. *Self-concept clarity:* The total score on the SCC ($M = 33.13$, SD = 10.64) was lower compared to the three studies conducted by Campbell et al. (1996) (study 1; $M = 42.12$, SD = 8.19; study 2; $M = 39.68$, SD = 8.16; study 3; $M = 38.68$; SD = 8.16), which included American university students. It was also lower compared to the study conducted by Hasson-Ohayon, Mashiach-Eizenberg, and Roe (2016) which included participants who had received a diagnosis of 'schizophrenia' ($M = 35.64$, SD = 12.24), and the three studies conducted by Ritchie et al. (2011) which explored the association between SCC and wellbeing across three studies predominantly involving undergraduate students (study 1; $M = 44.04$, SD = 12.36; study 2; $M = 38.64$, SD = 9.27; study 3; $M = 36.96$, SD = 9.48). Overall, this suggested that the participants reported lower SCC and thus experienced a more confused self-concept in comparison to previous studies. However, the SD

being slightly larger in the current study suggested there was greater variability in the scores reported.

4.5.1.6. *Self-esteem*: The total score on the Rosenberg SE scale ($M = 15.61$, SD = 6.46) was just above the cut off score for low SE (score of 15 or below) (Rosenberg, 1965). The mean score was lower compared to the study conducted by Stopa et al. (2010), which included undergraduate students from the University of Southampton ($M = 31.00$, SD = 4.60). Overall, this suggested that participants reported relatively low SE and thus negative evaluations around their worthiness. The SD in the current study, however, was slightly larger in comparison to the study conducted by Stopa et al. (2010), which suggested there was slightly more variability in the scores.

4.5.1.7. *Psychological distress:* The scores on each subscales belonging to the DASS-21 (anxiety; $M = 5.47$, SD = 5.21; depression; $M = 8.01$, SD = 6.24; stress; $M = 9.07$, SD = 5.04) were lower compared to the study conducted by Matos and Pinto-Gouveia (2010; 2011) (anxiety; $M = 7.29$, SD = 6.69; depression; $M = 7.65$, SD = 7.75; stress; $M = 12.38$, SD = 8.12), and the study conducted by Matos, Pinto-Gouveia and Duarte (2012) (anxiety; $M = 6.38$, SD = 6.58; depression; $M = 6.15$, SD = 7.49; stress; $M = 11.98$, SD = 7.78). Overall, this suggested that the participants in the current study reported less distress in comparison to previous studies. This is strengthened by the SDs in the current study being lower in comparison to the other studies.

4.5.1.8. *Psychological wellbeing:* The total score on the WEMWBS ($M = 42.62$, SD = 10.36) was lower compared to the study conducted by Stewart-Brown and Jonmohamed (2008), which used population based data from participants living in Scotland ($M = 50.70$, SD = 8.79), and the study conducted by Taggart et al. (2013) ($M = 49.39$, SD = .9.75), which involved participants who identified as being Chinese or Pakistani living in Birmingham. Overall, this suggested that participants in the current study reported lower wellbeing in comparison to previous studies. However,

the SD in the current study was slightly larger, which suggested there was more variability in the scores.

4.5.2. <u>Research Questions</u>

The findings relating to each research question will now be considered in turn below.

4.5.2.1. Research Question 1: Are the following variables significantly associated with psychological distress?

-Shame memories containing: a) traumatic features b) centrality features
-Shame: a) external b) internal
-Self-concept: a) self-concept clarity b) self-esteem

To replicate and build on previous research whilst examining the usefulness of including the variables in further analyses, the study examined the association between psychological distress using all subscales belonging to the DASS-21, and the variables measuring SMs, shame and self-concept. As detailed in section 3.4.1 in the Results chapter, all variables were significantly associated with the three subscales belonging to the DASS-21.

A strong and positive association was found between SMs containing traumatic features and the three subscales belonging to the DASS-21, and the strongest association was found with the stress subscale. This supported the research conducted by Matos and Pinto-Gouveia (2010) and Pinto-Gouveia, Matos and Duarte (2012), which also found significant and positive relationships between the variables. Overall, the findings supported the assertion that SMs can contain traumatic features, and these features are associated with higher levels of distress.

A moderate and positive relationship was found between SMs containing centrality features and the three subscales belonging to the DASS-21. This supported the research conducted by Pinto-Gouveia and Matos (2010) and Pinto-Gouveia, Matos

and Duarte (2012). Overall, this supported the proposition that SMs containing centrality features are associated with higher levels of distress. Furthermore, in the same way as previous studies (e.g., Matos, Pinto-Gouveia & Duarte, 2012), a strong and positive association was found between SMs containing traumatic and centrality features (r = .67). Taken together, these findings provided support for the Centrality Event Theory (Bernstein & Rubin, 2006), which postulated that memories of negative or traumatic events are associated with distress when they become a central reference point for the interpretation of other events, are considered a significant turning point in one's life story, and when the memory becomes central to one's self-concept. Furthermore, they supported the proposition within the SMS (Conway & Pleydell-Pearce, 2000) that AMs are integral in shaping one's self-concept.

A moderate and negative association was found between internal shame (with higher scores indicating lower internal shame) and the anxiety and stress subscales belonging to the DASS-21, whilst a strong association was found with the depression subscale. The stronger association between internal shame and the depression subscale could be explained by the two constructs both measuring the experience of negative feelings towards one's self-concept (e.g., feelings of incompetence and worthlessness). As a different measure of internal shame (the Experience of Shame Scale) was used in the studies conducted by Matos and Pinto-Gouveia (2010; 2011), direct comparisons cannot be made. However, these studies also found moderate correlations between internal shame and the depression, anxiety and stress subscales.

Strong and negative associations were found between external shame and all three subscales belonging to the DASS-21, and the strongest association was found with the depression subscale. This supported the previous research conducted by Matos and Pinto-Gouveia (2010; 2011) and the assertion that believing the self exists negatively in the minds of others is associated with higher levels of distress (Gilbert, 1998). A stronger association being found between external shame and the

depression subscale could be explained through both experiences typically involving feelings of subordination and social withdrawal (Gilbert, 1989; Thompson & Berenbaum, 2006). In support of Gilbert's model (1998), the association between the external and internal demonstrated that these were related but distinct constructs (r = .74).

Furthermore, the significant associations between SMs containing traumatic features and external (r = .61) and internal (r = -.39) shame and between SMs containing centrality features and external (r = .47) and internal (r = -.34) shame supported the assertion that SMs, which contain traumatic and centrality features are significantly associated with external and internal shame (Matos & Pinto-Gouveia, 2010; 2011). Theoretically, these findings supported Gilbert's (1998) model of shame, which postulated that current experiences of shame are underpinned by SMs. However, in the same way as past research, the causal relationship between the variables cannot be determined as a cross-sectional and correlational design was utilised.

Moderate and negative associations were found between SCC and the three subscales belonging to the DASS-21, and the strongest associations were found with the depression and stress subscales. To the researcher's knowledge, the association between the SCCS and the DASS-21 has not been previously explored. Consequently, direct comparisons to previous research cannot be made. These findings, however, supported past research that found significant and negative associations between SCC and anxiety (measured using the GAD-Q-IV; Newman, Zuellig, Kachin, Constantino, Przeworski, Erickson, & Cashman-McGrath, 2002) (Kusec, Tallon, & Koerner, 2016), 'depression' (measured using the BDI-II; Beck, Steer, & Brown, 1996) (Stopa et al. 2010) and stress (measured using the Survey of Recent Life Events Scale; RLE; Kohn & MacDonald, 1992) (Ritchie et al., 2011). In support of Campbell (1996), these findings suggested that participants who experienced a more confused and less coherent sense of self reported higher levels of distress. Furthermore, the significant association between SCC and SE (r = .58) supported Campbell's (1996) assertion that these are distinct yet related constructs.

Strong and negative associations were found between SE and the three subscales belonging to the DASS-21, with the strongest association being found for the depression subscale. This supported the consistent relationship that has been found between low self-esteem and psychological distress, particularly 'depression' (e.g., Sinclair et al. 2010). In the same way as internal shame, the strongest association between SE and the depression subscale could be due to them both measuring global and negative feelings towards one's self-concept.

4.5.2.2. Research Question 2: Are the following variables significantly associated with psychological well-being?

-Shame memories containing: a) traumatic features b) centrality features
-Shame: a) external b) internal
-Self-concept: a) self-concept clarity b) self-esteem

As detailed in section 1.5.5 in the Introduction chapter, the relationship between SMs, shame and psychological wellbeing was not investigated in the studies reviewed in literature review I. Consequently, there is limited opportunity to relate the current findings to previous literature. The findings will thus be compared to the theoretical arguments contained in the studies when relevant.

A moderate and negative association was found between SMs containing traumatic features and psychological wellbeing. This suggested that SMs containing more traumatic features in the form of intrusions, hyperarousal, and avoidance were negatively associated with wellbeing. This supported the assertion made by Matos, Pinto-Gouveia and Duarte (2012; 2013) that SMs containing traumatic features can have a significant and detrimental impact on wellbeing.

A weak and negative association was found between SMs containing centrality features and psychological wellbeing. This suggested that SMs that become a central reference point for the interpretation of other events, are considered a

significant turning point, and central to one's self-concept are associated with lower wellbeing. However, this association was weak. Taken together, these findings suggested that SMs containing traumatic features had a stronger and more detrimental impact on wellbeing compared to SMs containing centrality features. This could be due to the experience of traumatic SMs as intrusions, hyperarousal and avoidance are perhaps more likely to create significant disruptions to the experience of meaning and optimism about the future, and thus wellbeing.

A strong and negative association was found between external shame and psychological wellbeing, which suggested that lower external shame was associated with higher wellbeing. Similarly, a strong and positive association was found between internal shame and psychological wellbeing. This suggested that lower internal shame was associated with higher wellbeing.

Interestingly, when comparing these findings to the findings related to psychological distress, some differences were found. For example, the correlations between SMs containing traumatic and centrality features and distress were stronger in comparison to the correlations between the variables and psychological wellbeing. This suggested that the traumatic and centrality features of SMs could hold more significance in the experience of distress. Furthermore, internal shame demonstrated a slightly stronger association with psychological wellbeing, whilst external shame demonstrated a stronger association with distress. Possible explanations for these findings are provided in section 4.4.2.6. Overall, these differences supported the Two Continuum Model (Keyes, 2002; 2005a, 2007), which postulated that psychological distress and wellbeing are distinct but related constructs. This is further supported by the negative associations that were found between psychological wellbeing and the subscales belonging to DASS-21 (r = .50 - .76).

A moderate and positive relationship was found between SCC and psychological wellbeing. This supported Campbell's (1996) assertion that higher SCC is

associated with higher wellbeing. This could be explained by drawing on a hypothesis offered by Baumgardner (1990) that individuals with higher SCC experience greater feelings of control over future outcomes. To the researcher's knowledge, the relationship between the SCCS and the WEMWBS has not been previously investigated. Consequently, direct comparisons cannot be made to past research. However, this finding supported the research conducted by Ritchie et al. (2011) which also found a moderate relationship between the SCCS and wellbeing measured using the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) and the studies conducted by Hasson-Ohayon (2014), which measured wellbeing using the Meaning in life questionnaire (Steger, 2010). Additionally, this finding supported previous literature that found a significant and positive association between SCC and purpose in life (e.g., Bigler, Neimeyer, & Brown, 2001).

Compared to SCC, a stronger and positive relationship was found between SE and psychological wellbeing. This supported a key premise within existing literature that higher levels of SE are associated with a number of positive outcomes (e.g., Paradise & Kernis, 2002). Furthermore, this finding suggested that for participants in the current study, a global and positive evaluation of the self had a stronger association with wellbeing than greater coherence within one's self-concept (i.e., higher SCC). This could have been influenced by the questionnaire that were used to measure SE and wellbeing, as some items on the WEMWBS seem more relevant to a positive and global evaluation of one's self-concept (i.e., higher SE) instead of structural aspects of self-concept (e.g., items included 'I've been feeling good about myself' and 'I've been feeling confident').

4.5.2.3. Research Question 3: Is there a significant association between self-concept clarity and the following variables?

-Shame memories containing: a) traumatic features b) centrality features
-Shame: a) external b) internal

A moderate and negative association was found between SMs containing traumatic features and SCC. This suggested that SMs containing greater traumatic features are associated with a more confused sense of self. This supported previous research, which also found a negative association between early adverse experiences and SCC (e.g., Evans et al. 2015; Perry et al. 2008; Vartanian, Froreicha & Smyth, 2016). The current study added to previous literature as it suggested that early shaming experiences whereby the self is experienced as existing negatively in the minds of others, and the self is judged negatively (e.g., as being inferior and inadequate), are also associated with lower SCC.

In the same way, a moderate and negative relationship was found between SMs containing centrality features and SCC. This suggests that when SMs are recorded in AM as highly accessible memories, which are considered a central reference point for the interpretation of other events, a significant turning point in one's life story, and central to one's self-concept, they are associated with a more confused sense of self. Taken together, these findings provided empirical support for Gilbert's (1995) proposition that SMs can lead to a less coherent sense of self. This added to the previous literature around SMs and self-concept as it suggested that, in addition to influencing the content of self-beliefs (e.g., I am inferior) (Matos & Pinto-Gouveia, 2011), SMs containing traumatic and centrality features can have a negative impact on structural aspects of self-concept.

A strong and negative association was found between SCC and external shame. Similarly, a strong and positive association was found between SCC and internal shame. This suggested that negative and internal perceptions of the self (e.g., as

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inferior and inadequate) are associated with a more confused sense of self. These findings could tentatively be understood by drawing on the key premise offered by Campbell et al. (1996), which has been referenced in more recent literature (e.g., Vartian & Dey, 2013; Vartanian, Froreicha & Smyth, 2016), that individuals with lower SCC could be more concerned with how they are perceived by others and are thus more likely to attend to external sources of information as a means of increasing SCC. This could perhaps lead to greater external and internal shame, particularly when early SMs contain traumatic and centrality features and are recorded in AM as highly accessible memories, which shape negative perceptions of the self and others (Conway & Pleydell-Pearce, 2000).

4.5.2.4. Research Question 4: Are there significant group differences between attachment and non-attachment SMs on the following variables?

-Shame memories containing: a) traumatic features b) centrality features
-Shame: a) external b) internal
-Self-concept: a) self-concept clarity b) self-esteem
-Psychological distress
-Psychological wellbeing

The MANOVA indicated that there was a significant multivariate difference between the two groups. The follow up t-tests using Bonferroni correction demonstrated that participants who recalled an attachment SM reported significantly higher traumatic and centrality features. As the current study involved participants recalling one SM, it was not possible to replicate previous research (e.g., Matos & Pinto-Gouveia, 2013, 2014) that found higher correlations between attachment SMs and internal shame, and between non-attachment SMs and external shame. However, when comparing the two groups, higher levels of external and internal shame, and lower SE and wellbeing were reported by participants who recalled attachment SMs. Participants who recalled an attachment SM also reported lower SCC and psychological distress,

but these were found to be non-significant when using the more conservative p value ($p <.006$).

In the same way as previous research (e.g., Matos, Pinto-Gouveia, & Costa, 2013), the significant differences could be understood by drawing on attachment theory (Bowlby, 1969) and Gilbert's (1998) model of shame. According to attachment theory, early interactions with attachment figures structure memories about the self in relation to others. These memories are believed to inform Internal Working Models (IWMs), which create the foundation for future relationships by shaping perceptions of the self, others, and the world (Hazan & Shaver, 1987). Indeed, attentive and responsive interactions with caregivers characterised by secure attachment are believed to form the basis for positive perceptions of the self (e.g., perceiving the self as worthy) and a coherent sense of self. In contrast, insecure attachments, which can develop in response to dismissive, rejecting or abusive interactions, are believed to create negative perceptions of the self and others, which can lead to future relationships being avoided or approached with fear.

The higher traumatic and centrality features reported by participants who recalled an attachment SM could thus be understood on the basis that early relationships with attachment figures have a significant influence in structuring memories of the self and others, with negative experiences being inherently threatening. The higher levels of external and internal shame could be explained by drawing on a key premise within attachment theory that early attachment relationships influence the development of IWMs, which provide the foundation for relationships across time. In the context of early shaming experiences, this could lead to the perception that the self exists negatively in the minds of others (external shame) and the self being evaluated as inferior and inadequate (internal shame). In the same way, SE scores being significantly lower could be explained by the importance of early attachment relationships in shaping global feelings of worthiness, with early shaming experiences resulting in one's sense of worthiness being questioned.

Participants who recalled an attachment SM reported a more confused sense of self. This is also in keeping with attachment theory (Bowlby, 1969), which hypothesised that early attachment relationships create the foundation for a coherent sense of self, depending on the quality of the relationship. However, a significant difference between the two groups was not found using the more conservative p-value of < .006, that was determined using Bonferroni correction as detailed in section 3.4.4.3. This finding could be understood by drawing on Erikson's (1968) psychosocial model of human development, which postulated that a coherent sense of self usually develops following a period of self-concept confusion in adolescence, which was defined as the stage of 'identity versus role confusion'. As relationships with non-attachment figures (e.g., peers) become more significant as children age and progress through adolescence, it could be that shaming experiences involving non-attachment figures are of a similar importance to shaming experiences involving attachment figures when focusing on the extent of coherence within one's self concept.

Participants who recalled an attachment SM reported higher levels of psychological distress. However, a significant difference between the two groups was not found based on the more conservative p-value. This suggested that participants who recalled an attachment and non-attachment SM did not significantly differ in the distress they reported. In the same way as SCC, this demonstrated the importance of SMs involving both attachment and non-attachment figures in the experience of distress. In contrast, significant differences were found in the experience of psychological wellbeing, with participants who recalled an attachment SM reporting lower wellbeing. As participants who recalled attachment SMs reported higher scores on other measures (e.g., shame and SE), this could have resulted in them feeling less satisfied and less optimistic about the future and thus reporting lower scores on the WEMWBS.

Overall, these findings supported previous research that demonstrated the importance of attending to key aspects within SMs (e.g., who the individual felt

shamed by) in research and clinical work (e.g., within assessments, formulations and interventions) (Carvalho, Dinis, Pinto-Gouveia, & Estanqueiro, 2015; Matos & Pinot-Gouveia, 2014; Matos, Pinto-Gouveia, & Costa, 2013). The current study builds on past research in demonstrating that, on the basis of group differences, attachment SMs contained more traumatic and centrality features, and had a greater detrimental impact on SE and wellbeing. Importantly, this supported the usefulness of attending to wellbeing in addition to distress when assessing key characteristics of SMs and their possible impact.

4.5.2.5. Research Question 5: Does self-concept clarity independently predict psychological distress beyond the following variables?

-Shame memories: containing a) traumatic features, b) centrality features
-Shame: a) external b) internal
-Self-esteem

The regression model accounted for 67% of the variance in psychological distress. In the first step, the characteristics of SMs accounted for 48% of the variance in distress, and SMs containing traumatic features was found to be the only unique predictor. This provided further support for the SM literature, which emphasised the importance of accessing how SMs are incorporated in AM, and addressing the traumatic aspects of SMs when working therapeutically (e.g., Matos & Pinto-Gouveia, 2010). In contrast to previous findings (e.g., Pinto-Gouveia & Matos, 2011), SMs containing centrality features was not found to be a unique and significant predictor of psychological distress.

This discrepancy could be explained by a key difference in how the analyses were performed. To protect against multicollinearity, previous research had conducted separate analyses when exploring the impact of traumatic and centrality features, as each questionnaire measure was referring to the same shaming experience. However, the correlation between the two variables in the study current (r = .67)

suggested that multicollinearity would not pose a problem, and this was supported by the assumption of no multicollinearity being met when conducting the multiple regression (as detailed in section 3.4.5.1.2). Consequently, the variables in the current study were included in the same analysis. The findings suggested that when both variables were considered together, it was only the traumatic features of SMs that was a significant predictor. This could be due to the experience of traumatic features being inherently threatening (e.g., the experience of hyperarousal and intrusions), and the shared variance between the measures (e.g., the perception that the event permanently changed one's life and was a significant turning point as measured using the CES could be more likely when the SM contains traumatic features). This finding, however, is very tentative and would need to be explored in future studies.

The addition of external and internal shame in step two was found to be significant, and accounted for an additional 15% of the variance in psychological distress. External and internal shame were found to be unique and significant predictors, with external shame demonstrating greater significance. This finding could be understood by drawing on Gilbert's (1998) model of shame, which postulated that humans have an evolved desire to exist positively in the minds of others to avoid rejection, isolation and persecution. This could result in external shame being particularly distressing due to it representing a social threat.

Adding SE to the third step was also found to be significant and accounted for an additional 3% in the variance of psychological distress. This provided further support for the wealth of literature that had demonstrated the role of low SE in the experience of distress (e.g., Sinclair et al. 2010). However, the addition of SCC as a structural component of self-concept to the fourth step was found to be non-significant, which suggested that SCC did not independently predict psychological distress beyond the influence of SMs, shame and SE. This, in addition to the correlation coefficients, suggested that a global evaluation of one's worthiness (i.e. SE) might be particularly significant in the experience of shame. This provided

support for Kaufman's (1989) assertion that the experience of shame can lead to global and negative evaluations of the self, which is likely to reduce one's sense of worthiness.

Although this might question if a structural component of self-concept in the form of SCC would be useful to consider in the experience of SMs, shame and psychological distress, this finding could have been influenced by the measures used within the study. For example, the predictive nature of SE might have been enhanced by the depression subscale and the SE questionnaire both measuring negative and global feelings towards one's self-concept.

4.5.2.6. Research Question 6: Does self-concept clarity independently predict psychological wellbeing beyond the following variables?

-Shame memories containing: a) traumatic features, b) centrality features
-Shame: a) external b) internal
-Self-esteem

The regression model accounted for 62% of the variance in psychological wellbeing. In the first step, the characteristics of SMs accounted for 20% of the variance in psychological wellbeing. SMs containing traumatic features was found to be a significant and negative predictor of psychological wellbeing, whilst SMs containing centrality features was not found to be a unique predictor. This provides further support for assessing and addressing the traumatic aspects of SMs when working therapeutically, as these were found to be predictive of higher distress and lower wellbeing.

The addition of external and internal shame in step two was found to be significant, and this accounted for an additional 34% in the variance of psychological wellbeing. Both external and internal shame were found to be independent and significant predictors, with internal shame demonstrating slightly more significance. This

suggested that current experiences of shame, and internal shame in particular, accounted for a higher variance of psychological wellbeing in comparison to psychological distress. The significance of internal shame could be explained through the measure of internal shame (SCS) and the WEMWBS both measuring global perceptions of the self (e.g., items on the WEMWBS include 'I've been feeling confident about myself' and 'I've been feeling good about myself'). Including SE in the third step was also found to be significant, and this accounted for an additional 7% in the variance of psychological wellbeing. This provided further support for the large body of literature that had found a positive association between higher SE and a range of positive outcomes (e.g., Paradise & Kernis, 2002).

In the same way as psychological distress, the addition of SCC as a structural component of self-concept to the fourth step was found to be non-significant. This demonstrated that SCC did not predict psychological wellbeing beyond the influence of SMs, shame and SE. In the same way as psychological distress, this finding could have been influenced by the measures used within the study. For example, some items on the WEMWBS are more relevant to an overall evaluation of the self (e.g., I've been feeling confident) and thus the measure of SE.

The findings from the two multiple regressions provided further support for the Two Continuum Model (Keyes, 2002; 2005a; 2007), which postulated that psychological distress and wellbeing are distinct but related constructs. This is supported through differences being found in how the variables related to psychological distress and wellbeing.

4.6. Clinical implications

Although the findings would need to be replicated in future research, several tentative implications can be drawn from the study. The implications can be considered at multiple levels including; individual therapeutic work with adults, and the importance of preventative interventions.

4.6.1. Individual therapeutic work

4.6.1.1. *An assessment of self-esteem in the experience of shame:*

Based on the findings, it could be useful to attend to how individuals evaluate their overall sense of worthiness (i.e., SE), as this could contribute to the experience of distress in addition to negative self-beliefs (e.g., I am inferior). One way of doing this could be to ask the individual about their sense of worthiness and to actively connect to this when exploring the challenges that are being experienced. Additionally, individuals could be encouraged to complete the ten-item RSES (Rosenberg, 1965) as part of the assessment process. This information could be included in formulations when supporting individuals to understand the distress they are experiencing, whilst normalising their experiences.

4.6.1.2. *Attending to both distress and wellbeing*

Psychological therapies, including CFT (Gilbert, 2010) tend to focus on the experience and reduction of psychological distress within assessments, formulations and interventions (Harper & Spellman, 2013). The findings from the study, however, suggested that it could be helpful to attend to the experience of distress and wellbeing in the experience of SMs and shame.

According to Slade (2010), a holistic assessment should consist of four key areas; the challenges being experienced, the strengths and assets of the individual, and the role of environmental factors in reinforcing the challenges and creating resources and opportunities. When focusing on the experience of shame, a card sorting exercise whereby the individual can define their self-concept and organise attributes in a way that is meaningful might help to enrich these discussions through identifying the strengths of the individual and important social roles that might be maintaining or protecting against the experience of shame (Leeming & Boyle, 2011). This information could perhaps be incorporated into formulations alongside the information that is currently included in CFT formulations (e.g., experience of shame and distress) (Gilbert, 2010).

It could also be important to attend to wellbeing when co-constructing the goals for therapy (Lopez & Kerr, 2006; Slade, Oades, & Jarden, 2017). The focus of such conversations could be on what is important to the individual (e.g., key values) and what their hopes are for the future. Creative suggestions have been offered around how to support individuals to connect with their core values and the experience of wellbeing. These include the use of a compass metaphor to represent the direction or journey towards one's core values (Stoddard & Afari, 2014), and encouraging individuals to recall and describe situations in which they experienced a sense of wellbeing (Ruini & Flava, 2004). These techniques could perhaps be helpful when developing therapeutic goals and planning interventions alongside individuals who experience high levels of shame.

4.6.1.3. *Assessing the features of SMs*

The findings also supported the importance of attending to the features of SMs within assessments, formulations and interventions. It could be particularly helpful to explore if SMs contained traumatic features, as this was found to be a significant predictor of distress and wellbeing. Through using the IES-R as a guide, this could be explored by supporting individuals to recall a significant shame memory whilst assessing the possible experience of intrusions, hyperarousal and avoidance. This would help to identify when specific support around traumatic memories would be helpful in the first instance (e.g., trauma focused CBT or Narrative Exposure Therapy).

The findings also demonstrated the importance of attending to key details of shaming experiences (e.g., who the individual felt shamed by). This could help to guide the focus of therapy and the factors that could be useful to attend to (e.g., the possibility of lower SE and wellbeing in the context of early shaming experiences involving attachment figures).

4.6.2. Preventive interventions

The significant associations between SMs and negative experiences (e.g., higher levels of shame, lower SCC and SE, higher distress, and lower wellbeing) also point to the vital importance of preventative work in reducing the frequency of shaming experiences.

Within public health initiatives, such as Better Mental Health for All (Mental Health Foundation, 2016), the importance of early attachment relationships in shaping brain development, one's sense of worth and future relationship patterns have been emphasised. This has resulted in the importance of access to perinatal mental health services being promoted within NHS policies (e.g., NHS Improving Quality, 2015; Royal College of Psychiatrists, 2015). The findings in the current study supported the significance of early attachment relationships in the experience of negative outcomes in adulthood, and thus provided further support for such initiatives.

Within the current study, a larger number of participants (n = 122) recalled a non-attachment SM (e.g., involving a peer or teacher). This finding, in addition to participants who recalled a non-attachment SM reporting similar scores on the measures of psychological distress and SCC, suggested that school-based interventions, which aim to reduce shaming experiences could also be important. For example, it could be helpful to make teachers aware of the language they use when interacting with and providing feedback to pupils. It could also be helpful to encourage children to connect to their skills, strengths and values. This could be particularly helpful during adolescence, which is considered an essential stage in the development of one's self-concept (Erikson, 1976). One brief intervention that has been applied to an educational context and has received some empirical support (e.g., in increasing SE and SCC) are self-affirmation exercises (Cohen, Garcia, Apfel, & Masters, 2006; Cohen, Garcia, Purdie-Vaughns, Apfel, & Brzustoski, 2009; Sherman, Hartson, Binning, Purdie-Vaughns, & Garcia, 2013). On the basis of self-affirmation theory (Steele, 1988), individuals are encouraged to construct narratives

about being adequate and "good enough" through identifying and writing about their core values. Several processes have been hypothesised to account for the changes that self-affirmation exercises might evoke including; emphasising one's social resources, and reducing rumination around perceived failures (Cohen & Sherman, 2014). With the emphasis on connecting to one's core values whilst constructing narratives around one's sense of adequacy, self-affirmation tasks might provide a fruitful avenue to explore in the context of shaming experiences and high levels of shame within an educational setting.

4.7. Strengths of the study

4.7.1. Sample size and recruitment
The study recruited a reasonably large sample size, and included participants who had received a range of psychiatric diagnoses and self-reported psychological distress. This was in keeping with the transdiagnostic nature of SMs, high levels of shame, and low SCC. This is considered a strength, as the study tried to be as inclusive as possible, whilst giving participants the opportunity to define the distress they experienced. Furthermore, participants with a wide range of psychiatric 'disorders' and self-reported psychological distress were recruited, which suggested the constructs investigated were of relevance to individuals with a broad range of experiences.

4.7.2. Original contribution
To the researcher's knowledge, this was the first study to explore the construct of SCC in the experience of SMs and shame. This is considered a strength as combining theories from different branches of psychology can help to enrich current theories (Pinel & Constantino, 2003). It is hoped this study will encourage theories from other fields of psychology to be drawn upon in future studies, particularly when self-concept is explored in the context of clinically focused research.

4.8. Limitations

In addition to generalisations from the study needing to be treated with caution (as detailed in section 4.4.2), a number of limitations need to be considered. The limitations and how future research can mitigate against them will be summarised below.

4.8.1. Cross sectional and correlational design

As the study consisted of a cross sectional and correlational design, causal conclusions cannot be drawn. Although Bonferroni correction was used, the study could be critiqued for the large number of correlational analyses that were conducted. To overcome these limitations, longitudinal studies would need to be conducted. This would enable future research to robustly explore the key assertions within Gilbert's (1998) model (e.g., SMs increase shame-proneness, which increases the experience of distress). Furthermore, within the current study, the relationship between SCC and current experiences of shame were understood by drawing on Campbell et al's (1996) hypothesis that individuals with lower SCC are more likely to attend to external sources of information and are thus more concerned with how they are perceived by others. However, the causal relationship between the variables need to be examined to verify this hypothesis. To do this, future research could utilise an experimental design whereby SCC is temporarily manipulated and the impact on external and internal shame is examined. Previous research (e.g., Emery, Walsh, & Slotter, 2015) has manipulated SCC by asking participants to consider attributes that were part of their self-concept, and select two characteristics that either contradicted each other (i.e., low SCC) or complemented each other (i.e., high SCC) and write about how this was experienced in everyday life. This could perhaps provide a useful starting point for future research.

4.8.2. Shaming experiences

The current study gathered information about who the individual felt shamed by (attachment or non-attachment figure) in the memory they recalled. However, further

information about the shaming experience was not gathered due to the use of an online survey (e.g., the social support that was available at the time, if the shaming experience was shared with others and the responses that were received). This limits the conclusions that can be drawn, as previous research has demonstrated that these are important factors in the experience of distress and wellbeing following adverse events (e.g., Brewin, Andrews, & Valentine, 2000). Through the use of interviews, future research could therefore benefit from replicating the current study whilst using the Autobiographical Memory Questionnaire (AMQ; Rubin, Schrauf, & Greenberg, 2003), which assesses key details surrounding a memory, and collecting further contextual information about the shaming experience.

4.8.3. Demographic information

4.8.3.1. *Psychiatric diagnoses and self-reported distress:* As detailed in section 2.6.1, participants were asked whether they had received a psychiatric diagnosis or experienced self-reported psychological distress. In response to the limitations surrounding the use of psychiatric diagnoses (e.g., the experience of stigma), self-reported psychological distress was included to enable participants to define the distress they experienced. However, in the same way as psychiatric diagnoses, the reliability of self-reported psychological distress could be critiqued. Furthermore, despite the researcher being critical of psychiatric diagnoses, the DASS-21 was used as a measure of psychological distress, which was informed by psychiatric constructs. Along with the other measures, the DASS-21 could also be critiqued due to it being a self-reported measure, which is considered further in section 4.8.4. However, as detailed in 2.5.5.1, the DASS-21 was selected as it was underpinned by a dimensional conceptualisation of distress rather than a categorical approach, which relies on diagnostic boundaries, which have been consistently shown to lack reliability and validity (Johnstone, 2013; Kinderman, Read, Moncrieff, & Bentall, 2013; Pilgrim & Bentall, 1999).

4.8.3.2. *Data analysis:* As detailed in Appendix N, a range of demographic information was collected for the purpose of describing the sample who participated in the study. As detailed in sections 3.4 and 3.4.4.3, age was controlled for in some analyses (e.g., partial bivariate correlations and MANCOVA) to verify whether the age of participants' had a significant impact on the variables of interest (e.g., how vivid the shame memories were). In the same way as previous studies (e.g., Matos & Pinto-Gouveia, 2010; Pinto-Gouveia & Matos, 2011), the findings suggested that age did not have a significant impact on the variables included in the study. Age was thus not controlled for in the hierarchical multiple regressions that were conducted to answer research questions 5 and 6.

Other demographic information (e.g., gender) was not controlled for in the analyses as there was no clear rationale that this would influence the variables of interest. Indeed, in contrast to age, several studies had explored and demonstrated that gender did not have a significant impact on the variables of interest (e.g., SMs and shame) (e.g., Matos & Pinto-Gouveia, 2010; Matos & Pinto-Gouveia, 2014; Matos, Pinto-Gouveia & Duarte, 2015; Pinto-Gouveia & Matos, 2011; Pinto-Gouveia, Matos, Castilho, & Xavier, 2014). This consistent finding informed the decision not to control for gender within the statistical analyses.

As detailed in section 2.6.1, the experience of SMs, shame and SCC are believed to be important across a range of psychiatric diagnoses and experiences (i.e., are transdiagnostic). In response, a restriction was not placed on the psychiatric diagnoses that participants might have received or the ways in which participants understood and described their experiences of psychological distress. This information, in addition to whether participants were taking psychotropic medication, was not controlled for during the analyses as there was no theoretical rationale for doing so. Furthermore, dividing the sample into different groups based on this information would have been incompatible with the critical approach around the categorisation of psychological distress that was adopted throughout the study.

A limitation of the current study, however, was the information related to past and current experiences of psychological therapy were not controlled for within statistical analyses. It is possible that the experience of psychological therapy might have directly influenced all of the variables including the phenomenological experience of the SMs, the experience of shame, the two aspects of self-concept (SCC and SE), and psychological distress and wellbeing. It could thus be useful for future research to replicate the current study whilst controlling for past and current experiences of psychological therapy within statistical analyses.

4.8.4. <u>Measures</u>

All information was collected through self-reported questionnaire measures. Although this enabled the study to replicate previous research whilst increasing the recruitment potential, this methodology has been criticised due to the possibility of social desirability bias (Grimm, 2010), and participants not having flexibility in the responses they provide. Furthermore, as detailed in section 2.5.1, the descriptions of shame from the SEI were originally written in Portuguese and subsequently translated into English by the research group in Portugal for dissemination purposes. As detailed in section 2.2, it has been acknowledged throughout the thesis that the experience of shame is dependent on the wider social and cultural context. The use of the shame descriptions could thus be critiqued due to them being used within a different cultural context. However, the descriptions were based on Gilbert's (1998) conceptualisation of external and internal shame, which have been investigated in several studies across cultural contexts (e.g., the UK and Portugal). Moreover, as demonstrated in section 3.3.1, the use of the shame descriptions did not seem to weaken the reliability of the measures as they all demonstrated high internal consistency including the IES-R (Weiss & Marmar, 1997) and CES (Berntsen & Rubin, 2006), which were completed based on the shame memory that was recalled by participants.

As detailed throughout the chapter, some of the findings might have been influenced by the measures used within the study. For example, the depression subscale, and

the measures of internal shame (SCS), SE (RSES), and wellbeing (WEMWBS) all included items relating to the content of global perceptions of the self. As detailed in section 4.3, although this demonstrated that a global evaluation of one's worthiness could be more useful to consider in the experience of SMs and shame, the significance of SCC might have been reduced through the measures sharing similar features. Future research could therefore benefit from replicating the current study whilst using a broader range of questionnaires that measure the experience of psychological distress and wellbeing, such as the Social Interaction and Anxiety Scale (Mattick & Clarke, 1998) used by Stopa et al. (2010), and the shortened Satisfaction with Life Scale (Pavot & Deiner, 2013). This would help to clarify if the findings were influenced by the measures used, and if SCC holds more significance when focusing on different manifestations of distress and wellbeing.

It could also be useful for future research to explore the relationship between SCC and different domains of shame (e.g., categorical, behavioural and bodily) using the Experience of Shame Scale (Andrews, Qian, & Valentine, 2002) to ascertain if high levels of shame in one domain is associated with lower SCC. As detailed in section 2.5.6.1 in the Methods chapter, this measure was considered for the current study but it had been critiqued by Pinto-Gouveia and Matos (2011) as it contains items related to internal and external shame. However, based on the current findings, it might enable a more sensitive exploration of the association between current experiences of shame and SCC.

4.9. Future Research

In addition to overcoming some of the limitations in the current study, future research could also add to the pre-existing literature by focusing on the two following areas.

4.9.1. Self-affirmation tasks

In building on the literature around self-affirmation tasks (e.g., Cohen & Sherman, 2014), one potential avenue for future research could be to explore if self-affirmation

exercises reduce the experience of external and internal shame within a therapeutic context. Self-affirmation exercises might provide a helpful way for individuals to connect to their core values, resources, and sense of adequacy. Theoretically, the exercises might provide a useful starting point when challenges around developing compassion are experienced (e.g., when the self is experienced as being unworthy of compassion). It could therefore be useful for future research to explore the clinical utility of self-affirmation tasks in addition to exploring their usefulness within an educational context.

4.9.2. <u>The wider context</u>

Gilbert's (1998) model of shame and the theory surrounding SCC both stressed the importance of the wider social and cultural context in determining who is accepted or rejected within social groups. This was supported by Kraus, Chen, and Keltner (2011) who asserted that the experience of coherence within one's self-concept is directly influenced by one's current social context (e.g., access to resources) which intersects with a range of factors including; age, gender, ethnicity, and education (Chen, Boucher, & Tapias, 2006). Through utilising qualitative methodology, future research could explore the way contextual factors shape perceptions of the self, and the ways in which dominant ideals are resisted. It could also be helpful to encourage these conversations in clinical work and include wider contextual factors in formulations and interventions to empower individuals to actively resist dominant ideals and the perceptions of who belongs and does not belong to valued social groups (Lemming & Boyle, 2004).

4.10. Conclusion

The aim of this study was to replicate and extend previous research by exploring the relationship between the traumatic and centrality features of SMs, current experiences shame (external and internal), SCC, and psychological distress and wellbeing. The study supported the importance of attending to the characteristics of SMs, particularly traumatic features, and key features of early shaming experiences

(e.g., attachment or non-attachment) in the experience of psychological distress and wellbeing. Overall, the study suggested that SE (as an evaluative component of self-concept) could be more useful to consider than SCC (as a structural component of self-concept) in the experience of SMs and high levels of shame. However, this finding might have been influenced by the measures used.

Through building on these initial findings, it is hoped future research will continue to explore alternative factors that could be useful to consider when compassion is not experienced as a helpful construct. Furthermore, through the continued integration of theories from different fields in psychology, it is hoped that clinical work can be enriched and become as meaningful as possible for the individuals we work alongside.

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6. APPENDICES

Appendix A: Literature Review I: Shame Memories

Search terms pertaining to psychological distress included; 'distress,' 'mental disorder,' and 'psychopathology,' and terms pertaining to psychological wellbeing included; 'psychological wellbeing' and 'mental health.'

To reduce bias, an inclusion and exclusion criteria was used to identify the relevant literature.

Inclusion criteria:

- Studies that explicitly measured SMs regardless of the publication date and the country in which the study was conducted
- Studies that investigated the impact of SMs within adult populations (18-65 years). This was on the basis that the literature within the biopsychosocial model of shame (Gilbert, 1998) had focused on the adult population
- Studies investigating SMs across a range of psychological distress

Exclusion criteria:

- Studies that did not explicitly measure SMs as part of the research methodology
- Studies not written in English

Through reading the abstracts of all studies and checking the reference lists, 23 pieces of literature were retrieved from EBSCO (10 of which met the inclusion criteria), 122 were retrieved from Scopus (1 of which met the inclusion criteria after

duplicates were removed), and 1 further study was retrieved from google scholar. The literature review therefore contained 12 relevant studies.

Appendix B: Literature Review II: Self-concept clarity

To reduce bias, an inclusion and exclusion criteria was used to identify the relevant literature.

Inclusion criteria:

- Studies that explicitly measured self-concept clarity regardless of the publication date and the country in which the study was conducted
- Studies that investigated self-concept clarity within the adult population (18-65 years)
- Studies investigating self-concept clarity across a range of psychological distress

Exclusion criteria:

- Studies that did not explicitly measure self-concept clarity as part of the research methodology
- Studies not written in English

Through reading the abstracts of all studies and checking the reference lists, 60 pieces of literature were retrieved from EBSCO (7 of which met the inclusion criteria), 32 were retrieved from Scopus (1 of which met the inclusion criteria after duplicates were removed), 2 were retrieved from google scholar, and 4 further studies were retrieved from the reference lists of the relevant studies. Across the literature review, 14 pieces of literature were therefore identified. 1 unpublished dissertation had to be excluded, as the researcher was unable to access a full copy, leaving a total of 13 studies.

Appendix C: Information sought from the University of East London Ethics Committee

School of Psychology Research Ethics Committee

NOTICE OF ETHICS REVIEW DECISION **For research involving human participants** BSc/MSc/MA/Professional Doctorates in Clinical, Counselling and Educational Psychology

REVIEWER: Helen Murphy
SUPERVISOR: Trishna Patel
COURSE:Professional Doctorate in Clinical Psychology
STUDENT: Gemma McDonnell
TITLE OF PROPOSED STUDY: Exploring the impact of shame memories on identity and wellbeing

DECISION OPTIONS:

1. **APPROVED:** Ethics approval for the above named research study has been granted from the date of approval (see end of this notice) to the date it is submitted for assessment/examination.

2. **APPROVED, BUT MINOR AMENDMENTS ARE REQUIRED <u>BEFORE</u> THE RESEARCH COMMENCES** (see Minor Amendments box below)**:** In this circumstance, re-submission of an ethics application is <u>not</u> required but the student must confirm with their supervisor that all minor amendments have been made <u>before</u> the research commences. Students are to do this by filling in the confirmation box below when all amendments have been attended to and emailing a copy of this decision notice to her/his supervisor for their records. The supervisor will then forward the student's confirmation to the School for its records.

3. **NOT APPROVED, MAJOR AMENDMENTS AND RE-SUBMISSION REQUIRED** (see Major Amendments box below)**:** In this circumstance, a revised ethics application must be submitted and approved before any research takes place. The revised application will be reviewed by the same reviewer. If in doubt, students should ask their supervisor for support in revising their ethics application.

<mark>**DECISION ON THE ABOVE-NAMED PROPOSED RESEARCH STUDY**</mark>
<mark>*(Please indicate the decision according to one of the 3 options above)*</mark>

Minor amendments required *(for reviewer)*:

Major amendments required *(for reviewer):*

Please make the following major amendments:
The research is not to use a student population as this is an overused population sub-group and the required sample sizes are small as calibrated by G*Power 3.1. It is also not appropriate to use internal email systems for participant recruitment. The School decided this a few years ago.

Including 4 different Distress and Wellbeing measures over-burdens participants, especially as Cronbach's α is so high on each instrument and especially as this is a more complex DClin research project in comparison to others I have assessed. Reduce these Distress and Wellbeing measures from 4 to 2.

Omit the prize draw. The default position for monetary gain is zero in the School of Psychology. You have also chosen an unethical company for a prize draw.

Include notification that the results may be made public in conference presentations - indicated on page 15 but not indicated on page 25.

Include information for participants outlining details of the study's review by the NHS Ethics system (e.g. page 25)

Include Dr Patel's UEL contact number (page 25 & page 34)

ASSESSMENT OF RISK TO RESEACHER *(for reviewer)*
If the proposed research could expose the underlined researcher to any of kind of emotional, physical or health and safety hazard? Please rate the degree of risk:

	HIGH
	MEDIUM
x	

==LOW==

Reviewer comments in relation to researcher risk (if any):

==**Reviewer** *(Typed name to act as signature)*:   Dr Helen Murphy==

==**Date**==: 05/05/16

This reviewer has assessed the ethics application for the named research study on behalf of the School of Psychology Research Ethics Committee

Confirmation of making the above minor amendments *(for students)*:

I have noted and made all the required minor amendments, as stated above, before starting my research and collecting data. Student's name *(Typed name to act as signature):* Student number: Date: *(Please submit a copy of this decision letter to your supervisor with this box completed, if minor amendments to your ethics application are required)*

PLEASE NOTE:

*For the researcher and participants involved in the above named study to be covered by UEL's insurance and indemnity policy, prior ethics approval from the School of Psychology (acting on behalf of the UEL Research Ethics Committee), and confirmation from students where minor amendments were required, must be obtained before any research takes place. For the researcher and participants involved in the above named study to be covered by UEL's insurance and indemnity policy, travel approval from UEL (not the School of Psychology) must be gained if a researcher intends to travel overseas to collect data, even if this involves the researcher travelling to his/her home country to conduct the research. Application details can be found here: http://www.uel.ac.uk/gradschool/ethics/fieldwork/

Appendix D: Response to the Research Ethics Committee at the University of East London

Recruiting participants from the student population at the University of East London

There will be a drive to recruit a student sample due to ease of access. A large sample size is required and due to time restrictions solely recruiting from the general population may result in the researcher not obtaining a large enough sample to conduct the planned analyses. The researcher will not only focus on recruiting students and will take an exhaustive approach to recruiting more widely. The researcher would like to recruit participants based on a range of demographic variables, and the student population will represent a specific demographic group. The researcher is aware that students are an over-used population, but does not see this as an issue for the current study.

Omitting the prize draw

In appreciation of participants taking the time to complete the study the researcher would have liked to offer a small payment to all participants. However, this is not possible due to funding restrictions. Instead, participants who complete the survey will be offered the option to enter a prize draw with the opportunity to win a £20 Amazon voucher. An Amazon voucher has been chosen as this will ensure the voucher is not confined to purchasing specific items or goods. As participants might have a view on the ethical conduct of Amazon, or indeed other companies that provide vouchers, the participants will be given a choice on whether they would like to be included. If participants would like to be included in the prize draw, they will be asked to provide a contact detail (e.g., email address) to enable the researcher to contact the individual who wins the draw. This information will be stored in a separate database that will be password protected and only accessible by the researcher and their Director of Studies.

Measuring the constructs of psychological distress and wellbeing

Four measures have been included under the umbrella terms 'distress and well-being'; however, each of the measures have been designed to measure separate constructs. The study is interested in each of these constructs as demonstrated in the research questions.

The Depression, Anxiety and Stress Scale (DASS; Lovibond & Lovibond, 1995) is intended to measure general distress. Three separate scores will be generated from this questionnaire (depression, anxiety and stress). The scale was selected as it covers a broader range of distress as opposed to measures that focus solely on one construct e.g. PHQ-9. As the research is interested in exploring the relationship between shame memories and distress, the DASS needs to be included to answer the research questions. To reduce participant burden, the shorter version of the DASS has been included instead of the longer version.

The Impact of Event Scale Revised (Weiss & Marmar, 1997) is based on the construct of Post-Traumatic Stress Disorder. It has been included, as past research has found shame memories can be encoded as trauma memories and this has been associated with higher levels of distress (e.g. Pinto-Gouveia & Matos, 2011). As the study is interested in exploring the relationship between shame memories and distress, it is important that this measure is included to enable the study to answer the research questions and explore the relationship in a comprehensive way. Omitting this measure would limit the conclusions that could be drawn from the study.

The Warwick-Edinburgh Mental Health Well-being Scale has been included as a general measure of well-being. As the study is interested in exploring the relationship between shame memories and well-being, a general measure of well-being needs to be included. Other measures were considered, such as Ryff and Keyes (2005) Psychological Well-Being Scale. However, this scale has 42 items.

The Warwick-Edinburgh Mental Health Well-being Scale was selected to reduce participant burden as it contains 14 items.

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) has been included as scores on the self-concept clarity scale have been found to be highly correlated with scores on the Rosenberg self-esteem scale (r=.61) (Campbell et al., 1996). In response, past research (e.g. Stopa et al., 2010) has included the Rosenberg Self-Esteem Scale to control for its effects when exploring the impact of self-concept clarity on social anxiety scores. The current study hopes to do the same when exploring the unique contribution of self-concept clarity.

Appendix E: Ethical Approval from the University of East London

School of Psychology Research Ethics Committee

NOTICE OF ETHICS REVIEW DECISION **For research involving human participants** BSc/MSc/MA/Professional Doctorates in Clinical, Counselling and Educational Psychology

REVIEWER: Helen Murphy
SUPERVISOR: Trishna Patel
COURSE:Professional Doctorate in Clinical Psychology
STUDENT: Gemma McDonnell
TITLE OF PROPOSED STUDY: Exploring the impact of shame memories on identity and wellbeing

DECISION OPTIONS:

1. **APPROVED:** Ethics approval for the above named research study has been granted from the date of approval (see end of this notice) to the date it is submitted for assessment/examination.

2. **APPROVED, BUT MINOR AMENDMENTS ARE REQUIRED <u>BEFORE</u> THE RESEARCH COMMENCES** (see Minor Amendments box below)**:** In this circumstance, re-submission of an ethics application is <u>not</u> required but the student must confirm with their supervisor that all minor amendments have been made <u>before</u> the research commences. Students are to do this by filling in the confirmation box below when all amendments have been attended to and emailing a copy of this decision notice to her/his supervisor for their records. The supervisor will then forward the student's confirmation to the School for its records.

3. **NOT APPROVED, MAJOR AMENDMENTS AND RE-SUBMISSION REQUIRED** (see Major Amendments box below)**:** In this circumstance, a revised ethics application must be submitted and approved before any research takes place. The revised application will be reviewed by the same reviewer. If in doubt, students should ask their supervisor for support in revising their ethics application.

<mark>**DECISION ON THE ABOVE-NAMED PROPOSED RESEARCH STUDY**</mark>
<mark>*(Please indicate the decision according to one of the 3 options above)*</mark>

Minor amendments required *(for reviewer)*:

Thank-you for carefully considering my ethical considerations on the research project. I appreciate the manner in which you have addressed my concerns and that you have thought through my observations on the ethics of the study design. I know Dr Spiller is taking the 'prize draw' issue to the School Ethics committee for further discussion and action.

I do still think that there are a few too many psychological inventories for the participants but I will let the participants decide on that! Let me know if this is the case or not in due course – this will help me with making decisions on future ethics submissions.

The only <mark>minor amendment</mark>, Trishna and Gemma, is for you both to double check the validity of the DBS certificate. I think it has to be more recent than August 2014 if issued by an employer/institution other than UEL.

Thanks and best wishes for the research.

Helen

Major amendments required *(for reviewer):*

ASSESSMENT OF RISK TO RESEACHER *(for reviewer)*

If the proposed research could expose the <u>researcher</u> to any of kind of emotional, physical or health and safety hazard? Please rate the degree of risk:

	<mark>HIGH</mark>
	<mark>MEDIUM</mark>
x	<mark>LOW</mark>

Reviewer comments in relation to researcher risk (if any):

This reviewer has assessed the ethics application for the named research study on behalf of the School of Psychology Research Ethics Committee

Confirmation of making the above minor amendments *(for students)*:

I have noted and made all the required minor amendments, as stated above, before starting my research and collecting data.

Student's name *(Typed name to act as signature):*   **Gemma McDonnell**
Student number: **u1438311**

Date: **22/06/2016**

(Please submit a copy of this decision letter to your supervisor with this box completed, if minor amendments to your ethics application are required)

PLEASE NOTE:

*For the researcher and participants involved in the above named study to be covered by UEL's insurance and indemnity policy, prior ethics approval from the School of Psychology (acting on behalf of the UEL Research Ethics Committee), and confirmation from students where minor amendments were required, must be obtained before any research takes place.

*For the researcher and participants involved in the above named study to be covered by UEL's insurance and indemnity policy, travel approval from UEL (not the School of Psychology) must be gained if a researcher intends to travel overseas to collect data, even if this involves the researcher travelling to his/her home country to conduct the research. Application details can be found here:
http://www.uel.ac.uk/gradschool/ethics/fieldwork/

26th August 2016 To whom it may concern

This letter is to confirm that Gemma McDonnell has been granted ethical approval for her research entitled "Exploring the impact of Shame Memories on Identity and Well-being".

The Research Ethics Committee of the School of Psychology, University of East London, has approved Gemma McDonnell's research ethics application and she is therefore covered by the University's indemnity insurance policy while conducting the research. This policy should normally cover for any untoward event. The University does not offer 'no fault' cover, so in the event of an untoward occurrence leading to a claim against the institution, the claimant would be obliged to bring an action against the University and seek compensation through the courts. As the candidate is a student of the University of East London, the University will act as the sponsor of her research.

Yours faithfully,

Dr. Mary Spiller Chair of the School of Psychology Ethics Sub-Committee

Appendix F: Information Sheet

UNIVERSITY OF EAST LONDON

School of Psychology
Stratford Campus
Water Lane
London E15 4LZ

The principle Investigator
Name: Gemma McDonnell
Contact details: u1438311@uel.ac.uk

Shame memories, Identity and wellbeing

My name is Gemma McDonnell and I am a Trainee Clinical Psychologist studying at the University of East London. I would like to invite you to take part in a research study. The study is part of my Professional Doctorate in Clinical Psychology.

Before you make a decision, you need to understand why the research is being conducted and what it would involve. Please read through the following information carefully before deciding whether or not you would like to take part in the research. Talk to others about the study if you wish. If something needs clarification or you have any unanswered questions, please do not hesitate to contact me using the contact details at the end of this information page.

What are the aims of the study?

Shame is an emotion we all experience at different points in our lives, but for some people the experience of shame is more intense and persistent. Research has found that current feelings of shame may be linked to memories from childhood. This study aims to understand the impact of such memories on well-being and the way people view themselves (i.e., self-identity). It is hoped that the findings from this research project will help to shape the type of support available to individuals who experience high levels of shame in adulthood.

Why do you want me to take part?

You have been invited to take part, as we would like to gain a broad understanding of how shame memories may have an impact on experiences reported in later adulthood. We are hoping to do this by asking individuals who report a range of experiences, including psychological distress, to take part in the study. For the purposes of the study, psychological distress can be identified through a clinical diagnosis (e.g., depression) or it can be self-

identified. This means an individual may feel distressed, but they have not received a formal diagnosis.

To take part in the study, you will need to be 18-65 years old and have some fluency in English to understand and respond to written instructions.

Do I have to take part?

Taking part is entirely your choice. If you do decide to take part, you can withdraw from the study at any time without giving a reason by closing the online survey. If you choose to withdraw during the study, your responses will be deleted. However, if you complete the questionnaires and submit your responses, we will be unable to delete your responses, as the data will be collected in an anonymous way. This means we will be unable to link you to the data you provided.

What would taking part involve?

If you decide to take part, you will be asked to complete a range of questionnaires via a secure online survey or by hand, for which there are no right or wrong answers. You will be asked to think about a time when you experienced shame during childhood (a shame memory) and you will be asked a range of questions based on this experience. You will also be asked about current experiences, emotions and how you view yourself (self-identity). It is estimated that it will take approximately 30 minutes to complete the questionnaires.

Are there any disadvantages or risks to taking part?

Completing the questionnaires might make you aware of thoughts and feelings that you had not previously focused on. Sources of support will be provided during the study and you have the option of talking to the researcher and/or their supervisor if you wish to.

Are there benefits to taking part?

Taking part in the study may help to develop the type of support available and offered to adults who experience high levels of shame. In appreciation of your time, you will be provided with the opportunity to win a £20 Amazon voucher through a prize draw.

What if I have concerns or a complaint about the study?

If you have any concerns about the study you can talk to the researcher or their supervisor. If this does not resolve the problem, you can make a formal complaint through the University of East London ethics committee. Further details about this can be obtained from Dr Mary Spiller (chair of the Research Ethics sub-committee) whose details are contained at the end of this information page.

Will my information remain confidential?

All of the information you provide will be confidential and will only be shared with my supervisor. Your personal details will be kept separately and you will be assigned an identification number, so your responses cannot be linked to you. This number will be used

in the database where your responses will be recorded. The database will be stored on a password-protected computer file, which only my supervisor and I will have access to. Hard copies of information collected will be stored in a locked filing cabinet.

What will happen to the results?

The results of the study will be written up as a doctoral thesis and submitted to a psychological journal. The results might also be used in conference presentations. All of the information you provide will remain anonymous. All of the data belonging to the study will be destroyed after 5 years.

Has the study been reviewed?

The details of the study have been reviewed by an ethics committee at the University of East London.

Who can I contact about the study?

If you have any questions about the study, please contact me using the following contact details:

Gemma McDonnell, Trainee Clinical Psychologist, University of East London, Water Lane, London E15 4LZ.

(Email: u1438311@uel.ac.uk)

If you have any concerns about how the study is being conducted, you can contact my supervisor or the chair of the research ethics committee using the details below:

Dr Trishna Patel, School of Psychology, University of East London, Water Lane, London E15 4LZ.

(Tel: 020 8223 6392. Email: t.patel@uel.ac.uk)

Chair of the School of Psychology Research Ethics Sub-committee: **Dr Mary Spiller, School of Psychology, University of East London, Water Lane, London E15 4LZ.**

(Tel: 020 8223 4004. Email: m.j.spiller@uel.ac.uk)

Appendix G: Consent Form

Consent to participate in a research study

I confirm I have read and understood the information page.

I have been given the opportunity to ask questions about the study and have received satisfactory answers.

I understand that my involvement in the study is voluntary.

I understand that I can withdraw from the study at any point without giving a reason.

I understand that if I withdraw during the study all of the information I provided will be deleted.

I understand that I will be unable to withdraw my responses once they have been submitted, as the data will be collected in an anonymous way.

I understand that the information I share will be confidential between the researcher and her supervisor.

I understand that all information about the study will be destroyed after 5 years.

I hereby freely and fully consent to participate in the study, which has been fully explained to me.

Please indicate your consent by clicking 'YES' below

Appendix H: Sources of Support

Sources of support

If you are feeling distressed, I encourage you to discuss this with your GP. You could also discuss this with the clinician who is currently supporting you.

The following charities may also be useful for you:

1. **The Samaritans** - provides 24-hour support if you would like to talk to someone about how you are feeling.

Contact number- 116 123
Website- www.samaritans.org

2. **Mind** - provides information and support about mental health problems from 9am-6pm Monday-Friday.

Contact number- 0300 123 3393
Website-www.mind.org.uk

3. **Sane** - provides a national out-of-hours helpline (from 6pm-11pm) for individuals experiencing distress.

Contact number- 0300 304 7000
Website-www.sane.org.uk

4. A detailed list of other self-help organisations can be found at:

www.self-help.org.uk

In an emergency please call for an ambulance or go to your nearest A&E department

Appendix I: Debrief Sheet

Shame Memories, Identity and Well-being

Thank you for taking part in the study. The aim of the study is to explore the impact of shame memories and how this may relate to the way individuals think about themselves (self-identity). To investigate this, you were asked to think about a time in your childhood when you experienced shame (i.e., shame memory). You also completed questionnaires about your current feelings and how you view yourself.

It is hoped that the findings from this research project will help to shape the type of support available to individuals who experience high levels of shame in adulthood, as this can be distressing and difficult to manage. In appreciation of your time, you were given the opportunity to win a £20 Amazon voucher through a prize draw.

I would like to remind you that the personal information you provided as part of the study will remain confidential and will not appear in any publications. I have included details about 'sources of support' below. Please use this information if you feel distressed in response to participating in the study.

Appendix J: Description of shame

The experience of shame is common among all human beings and everyone, throughout life, has shame experiences. We know now that these are important experiences that might be related to several problems in people's lives.

Shame is a negative self-conscious emotion associated with feeling inferior and devaluing yourself (*originally written as 'shame is a negative self-conscious emotion associated with feelings of inferiority and personal devaluation'*). Shame may involve different feelings and thoughts.

External shame is what we feel when we experience or think someone/others are being critical, hostile, looking down on us, or seeing us as inferior, inadequate, different, bad or weak; it is what we feel when others criticise, reject, exclude or abuse us. Our feelings rise from how we think others feel about us *(originally written as 'our feelings rise from how we feel others feel about us').*

Internal shame is what we feel when we feel or judge ourselves negatively, as inferior, inadequate, different, bad or weak. Our feelings rise from how we feel and think about ourselves.

In a certain situation we might feel external shame, internal shame or both. Sometimes, we can also feel humiliation, when we believe others are being bad or unfair to us, we feel anger and want revenge/to get back at them. Shame feelings may blend with other feelings, such as anxiety, fear, anger, disgust or contempt. Furthermore, a great urge to hide, disappear or run away from the situation is part of the experience of shame.

Here are some examples of shame experiences from childhood and adolescence:

Maggie, who is 7 years old and has freckles, feels shame when she is at school as some kids call her names (e.g., "dot face") (*originally written as 'feels shame when at school some kids call her names'*). She believes she is different from the other kids and that they see her as flawed and inferior in some way (*originally written as 'she believes she is different from other kids and that they saw her as flawed and inferior in some way)*. She thinks she is not, and cannot, be accepted by them and that they do not want to be her friends. Whenever she has to play with them, she wants to run away from the playground or hide.

Another example is John, who is 9 years old, and is well behaved at school, has good marks, tries to concentrate in class and do his homework every day (*originally written as has good marks, tries to concentrated in class and do his homework every day').* However, every time he makes a mistake or he gets a worse mark on a test, his father is very critical and tells him he will never be someone in life and he is a disappointment. Whenever this happens, John feels extremely sad, ashamed and

thinks he is unable to meet others expectations.

Another example is Philip, who is 15 years old, and has never liked playing football, because he believed he was too clumsy to play sports. During a match between classes, he stumbled on the ball and the other team scored. Then, Philip felt very ashamed, and saw himself as inadequate, incompetent, and different from his peers. Even though his classmates didn't make any negative remarks, he couldn't help thinking that they had seen him as inadequate and inferior, and so they could reject him in some way. At that moment, Philip felt himself blushing, he felt nervous and tense, and wished he could become invisible and disappear from the face of the earth. At the end of the game he ran home and swore not to play football ever again.

Appendix K: Instructions for the questionnaire measures

Following the procedure of Pinto-Gouveia and Matos (2011), the following instructions were used:

The Impact of Event Scale Revised (IES-R; Weiss & Marmar, 1997)

'Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you over the past seven days with respect to the significant situation or experience in which you think you felt shame, during your childhood and/or adolescence.'

Centrality Event Scale (CES-S; Berntsen & Rubin, 2006**)**

'Please think back upon that significant situation or experience in which you think you felt shame during your childhood and/or adolescence and answer the following questions.'

Appendix L: Examples of targeted sites for recruitment

Please note that some recruitment sites have been omitted to protect confidentiality (e.g., the mental health charities).

Facebook groups:

Online Psychology Research

Psychology Research – promoting online participation and research

Assistant Psychology UK

Personal Facebook page

Family/friends personal Facebook pages

Social Psychology Research

Twitter feeds:

@mentalhealth

@UELPsychology

@SocialPsychologyResearch

Subreddits:

r/participants

r/researchparticipants

r/callforparticipants

r/psychologyresearch

Other websites/recruitment avenues:

Online Psychology Research

Clinical Psychology Forum – research page

Assistant Psychology group

Social Psychology Research

Appendix M: Information used for recruitment

Information used for Facebook and Reddit:

Hello all,

My name is Gemma McDonnell and I am a Trainee Clinical Psychologist studying at the University of East London. I would like to invite you to take part in a research study about the experience of shame that I am completing as part of my clinical psychology training.

Shame is an emotion we all experience, but for some people the experience of shame is more intense and persistent. This study aims to understand the impact of shame on well-being and the way people view themselves (i.e., self-identity). It is hoped the findings will help to shape the type of support available to individuals who experience high levels of shame in adulthood.

You need to be aged between 18-65 to take part in the study. If you would like to take part, you will be asked to complete questionnaires via a secure online survey. This should take approximately 30 minutes.

In appreciation of your time, you will be offered the opportunity to win a £20 Amazon voucher through a prize draw.

Please click on the link below to find out further information:

http://shamestudy.limequery.com/649471

If you have any questions about the study, please contact me on u1438311@uel.ac.uk

Thanks in advance

Information used for twitter:

Does a shaming experience in childhood shape the adult? Complete the survey &

have a chance to win an Amazon voucher

Shamestudy.limequery.com/649471

Take part in a study on the effects of shame on self-identity and wellbeing

Shamestudy.limequery.com/649471

Information used for mental health charity forums and other websites:

Shame Memories, Identity and Well-being

My name is Gemma McDonnell and I am a Trainee Clinical Psychologist studying at the University of East London. You are invited to take part in a research study, which I am completing as part of my Professional Doctorate in Clinical Psychology.

Shame is an emotion we all experience, but for some people the experience of shame is more intense and persistent. This study aims to understand the impact of shame on well-being and the way people view themselves (i.e., self-identity). It is hoped the findings will help shape the type of support available to individuals who experience high levels of shame in adulthood.

If you would like to take part, you will be asked to complete questionnaires via a secure online survey. This should take approximately 30 minutes.

In appreciation of your time, you will be offered the opportunity to win a £20 Amazon voucher through a prize draw.

To take part in the study, you need to be aged between 18-65 and have some fluency in English to understand and respond to written instructions.

If you are interested in taking part, please click on the link below to find out further information:

http://shamestudy.limequery.com/649471

If you have any questions about the study, please contact me on u1438311@uel.ac.uk

The University of East London Ethics Committee has approved the study.

Appendix N: Demographic information collected

To begin, I would like to ask you some questions about yourself. The information you provide will be confidential.

Age:

Gender:

How would you describe your ethnic origin? Please click the option you feel is most relevant to you.

☐ White British	☐ White and Black Caribbean
☐ Irish	☐ White and Black African
☐ Any other White background. Please specify:	☐ White and Asian
…………………………………………	
☐ Indian	☐ African
☐ Pakistani	☐ Caribbean
☐ Bangladeshi	☐ Any other Black background. Please specify:
☐ Chinese	…………………………………………
☐ Any other Asian background. Please specify:	☐ Any other ethnic group. Please specify:
…………………………………………	…………………………………………

How did you hear about the study?

Have you ever received a mental health diagnosis (e.g., depression)?

☐ Yes   ☐ No

Have you ever experienced or do you currently experience psychological difficulties but have not received a diagnosis?

☐ Yes   ☐ No

If you answered yes to either question:

What diagnosis have you received or how would you describe your psychological difficulties?

When did you receive the diagnosis or when did this problem start?

Do you take any medication for the psychological difficulties you experience?

☐ Yes   ☐ No   ☐ Not applicable

If you answered 'yes'

What medication are you currently taking?

Are you currently receiving psychological therapy?

☐ Yes   ☐ No   ☐ Not applicable

If you answered 'yes'

How many sessions have you attended to date?

Have you received psychological therapy in the past?

☐ Yes ☐ No ☐ Not applicable

If you answered 'yes'

How many sessions did you attend?

Appendix O: Normally distributed plots for age

Dem_Age

Group_CandNC: Completers

Mean = 32.17
Std. Dev. = 11.649
N = 227

Dem_Age

Group_CandNC: Non-completers

Mean = 31.75
Std. Dev. = 11.076
N = 79

Appendix P: Psychiatric diagnoses and self-reported distress

			Formal diagnoses (n = 105)						Self-reported distress (n = 32)		
	N	**%**								**N**	**%**
Not specified	6	6%							**Not specified**	1	3%
				N	**%**		**N**	**%**			
One diagnosis	44	42%	**Two diagnoses**	37	35%	**Three/more diagnoses**	18	17%			
Anorexia Nervosa	1	1%	BPD, bipolar disorder	1	1%	Anorexia, depression, OCPD	1	1%	Anorexia	1	3%
Anxiety Disorder	1	1%	BPD, PTSD	1	1%	Anorexia, depression, anxiety	1	1%	Anxiety	10	31%
Bipolar Disorder	4	4%	Depression, anxiety disorder	26	25%	Anorexia, dissociative disorder, depression	1	1%	Depression, anxiety	5	16%
Bulimia Nervosa	1	1%	Depression, BPD	1	1%	Anxiety, bipolar disorder, BPD	1	1%	Depression/low mood	7	22%
Depression	25	24%	Depression, eating disorder	5	5%	BPD, depression, anxiety	1	1%	Anxiety, low self-esteem	4	13%
GAD	2	2%	Depression, schizophrenia	1	1%	Depression, GAD, agrophobia	1	1%	Sleep difficulties	1	3%
OCD	5	5%	PND, anxiety	1	1%	Depression, GAD, SAD	1	1%	Addictive behaviours	1	3%
Impulse Disorder	1	1%	Two anxiety disorders	1	1%	Depression, bipolar disorder, anxiety	1	1%	Obsessive thoughts	1	3%
PND	2	2%				Depression, anxiety, PTSD	2	2%	Stress	1	3%
PTSD	1	1%				Depression, anxiety, PTSD, EUPD	2	2%			
Psychosis	1	1%				Depression, binge eating disorder, OCD	1	1%			
						GAD, depression, OCD	1	1%			
						OCD, social anxiety, eating disorder	1	1%			
						OCD, PTSD, depression	1	1%			
						PTSD, OCD, anakastic PD	1	1%			
						Schizophrenia, OCD, depression	1	1%			

Note. BPD = Borderline Personality Disorder, EUPD = Emotionally Unstable Personality Disorder, GAD = Generalised Anxiety Disorder, OCD = Obsessive Compulsive Disorder, OCPD = Obsessive Compulsive Personality Disorder, PD = Personality Disorder, PND = Post-Natal Depression, PTSD = Post-Traumatic Stress Disorder, SAD = Social Anxiety Disorder.

Appendix Q: Z scores

Zscore(IESR_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1.14212	34	15.5	15.5	15.5
	-1.09738	3	1.4	1.4	16.8
	-1.05265	9	4.1	4.1	20.9
	-1.00792	1	.5	.5	21.4
	-.96318	8	3.6	3.6	25.0
	-.91845	2	.9	.9	25.9
	-.87372	4	1.8	1.8	27.7
	-.82898	1	.5	.5	28.2
	-.78425	8	3.6	3.6	31.8
	-.73952	2	.9	.9	32.7
	-.69479	3	1.4	1.4	34.1
	-.65005	4	1.8	1.8	35.9
	-.60532	4	1.8	1.8	37.7
	-.56059	1	.5	.5	38.2
	-.51585	3	1.4	1.4	39.5
	-.47112	2	.9	.9	40.5
	-.42639	4	1.8	1.8	42.3
	-.38165	8	3.6	3.6	45.9
	-.33692	2	.9	.9	46.8
	-.29219	2	.9	.9	47.7
	-.24746	3	1.4	1.4	49.1
	-.20272	4	1.8	1.8	50.9
	-.15799	3	1.4	1.4	52.3
	-.11326	1	.5	.5	52.7
	-.06852	2	.9	.9	53.6
	-.02379	5	2.3	2.3	55.9
	.02094	2	.9	.9	56.8
	.06568	7	3.2	3.2	60.0
	.11041	2	.9	.9	60.9
	.15514	1	.5	.5	61.4

.19988	2	.9	.9	62.3
.24461	2	.9	.9	63.2
.28934	2	.9	.9	64.1
.33407	2	.9	.9	65.0
.37881	5	2.3	2.3	67.3
.42354	3	1.4	1.4	68.6
.46827	6	2.7	2.7	71.4
.51301	1	.5	.5	71.8
.60247	4	1.8	1.8	73.6
.64721	3	1.4	1.4	75.0
.69194	1	.5	.5	75.5
.73667	3	1.4	1.4	76.8
.78141	1	.5	.5	77.3
.82614	2	.9	.9	78.2
.87087	2	.9	.9	79.1
.91560	1	.5	.5	79.5
.96034	1	.5	.5	80.0
1.00507	2	.9	.9	80.9
1.04980	2	.9	.9	81.8
1.09454	3	1.4	1.4	83.2
1.13927	3	1.4	1.4	84.5
1.22874	1	.5	.5	85.0
1.27347	1	.5	.5	85.5
1.31820	2	.9	.9	86.4
1.36293	2	.9	.9	87.3
1.40767	1	.5	.5	87.7
1.45240	2	.9	.9	88.6
1.49713	1	.5	.5	89.1
1.54187	3	1.4	1.4	90.5
1.63133	2	.9	.9	91.4
1.67607	3	1.4	1.4	92.7
1.72080	2	.9	.9	93.6
1.76553	2	.9	.9	94.5
1.85500	3	1.4	1.4	95.9
2.03393	2	.9	.9	96.8

		Frequency	Percent	Valid Percent	Cumulative Percent
	2.07866	1	.5	.5	97.3
	2.21286	1	.5	.5	97.7
	2.25760	2	.9	.9	98.6
	2.30233	1	.5	.5	99.1
	2.34706	1	.5	.5	99.5
	2.52599	1	.5	.5	100.0
	Total	220	100.0	100.0	

Zscore(CENTRALITY_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1.53485	19	8.6	8.6	8.6
	-1.41591	6	2.7	2.7	11.4
	-1.29697	8	3.6	3.6	15.0
	-1.17803	4	1.8	1.8	16.8
	-1.05909	9	4.1	4.1	20.9
	-.94016	15	6.8	6.8	27.7
	-.82122	4	1.8	1.8	29.5
	-.70228	8	3.6	3.6	33.2
	-.58334	5	2.3	2.3	35.5
	-.46440	4	1.8	1.8	37.3
	-.34546	4	1.8	1.8	39.1
	-.22652	10	4.5	4.5	43.6
	-.10759	6	2.7	2.7	46.4
	.01135	9	4.1	4.1	50.5
	.13029	6	2.7	2.7	53.2
	.24923	12	5.5	5.5	58.6
	.36817	7	3.2	3.2	61.8
	.48711	15	6.8	6.8	68.6
	.60605	8	3.6	3.6	72.3
	.72498	9	4.1	4.1	76.4
	.84392	4	1.8	1.8	78.2
	.96286	7	3.2	3.2	81.4
	1.08180	3	1.4	1.4	82.7

	Frequency	Percent	Valid Percent	Cumulative Percent
1.20074	8	3.6	3.6	86.4
1.31968	6	2.7	2.7	89.1
1.43862	8	3.6	3.6	92.7
1.55755	7	3.2	3.2	95.9
1.67649	2	.9	.9	96.8
1.79543	7	3.2	3.2	100.0
Total	220	100.0	100.0	

Zscore(OAS_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-2.18623	2	.9	.9	.9
	-2.04934	1	.5	.5	1.4
	-1.98089	1	.5	.5	1.8
	-1.91245	2	.9	.9	2.7
	-1.77555	1	.5	.5	3.2
	-1.63866	1	.5	.5	3.6
	-1.57022	1	.5	.5	4.1
	-1.50177	1	.5	.5	4.5
	-1.43332	4	1.8	1.8	6.4
	-1.36488	4	1.8	1.8	8.2
	-1.29643	3	1.4	1.4	9.5
	-1.22799	3	1.4	1.4	10.9
	-1.15954	2	.9	.9	11.8
	-1.09109	2	.9	.9	12.7
	-1.02265	6	2.7	2.7	15.5
	-.95420	7	3.2	3.2	18.6
	-.88575	6	2.7	2.7	21.4
	-.81731	9	4.1	4.1	25.5
	-.74886	5	2.3	2.3	27.7
	-.68042	5	2.3	2.3	30.0
	-.61197	4	1.8	1.8	31.8
	-.54352	2	.9	.9	32.7
	-.47508	7	3.2	3.2	35.9

-.40663	4	1.8	1.8	37.7
-.33819	5	2.3	2.3	40.0
-.26974	5	2.3	2.3	42.3
-.20129	3	1.4	1.4	43.6
-.13285	9	4.1	4.1	47.7
-.06440	6	2.7	2.7	50.5
.00404	12	5.5	5.5	55.9
.07249	2	.9	.9	56.8
.14094	1	.5	.5	57.3
.20938	5	2.3	2.3	59.5
.27783	11	5.0	5.0	64.5
.34628	7	3.2	3.2	67.7
.41472	5	2.3	2.3	70.0
.48317	8	3.6	3.6	73.6
.55161	3	1.4	1.4	75.0
.62006	2	.9	.9	75.9
.68851	2	.9	.9	76.8
.75695	4	1.8	1.8	78.6
.82540	4	1.8	1.8	80.5
.89384	3	1.4	1.4	81.8
.96229	3	1.4	1.4	83.2
1.03074	1	.5	.5	83.6
1.09918	4	1.8	1.8	85.5
1.16763	3	1.4	1.4	86.8
1.23607	2	.9	.9	87.7
1.30452	1	.5	.5	88.2
1.37297	1	.5	.5	88.6
1.44141	3	1.4	1.4	90.0
1.50986	1	.5	.5	90.5
1.57831	5	2.3	2.3	92.7
1.64675	4	1.8	1.8	94.5
1.71520	2	.9	.9	95.5
1.85209	2	.9	.9	96.4
1.92054	3	1.4	1.4	97.7
2.05743	1	.5	.5	98.2

		Frequency	Percent	Valid Percent	Cumulative Percent
	2.33121	1	.5	.5	98.6
	2.46810	1	.5	.5	99.1
	2.53655	1	.5	.5	99.5
	2.67344	1	.5	.5	100.0
	Total	220	100.0	100.0	

Zscore(SCS_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-2.00696	8	3.6	3.6	3.6
	-1.90538	2	.9	.9	4.5
	-1.85458	1	.5	.5	5.0
	-1.65142	1	.5	.5	5.5
	-1.60063	2	.9	.9	6.4
	-1.54983	3	1.4	1.4	7.7
	-1.49904	1	.5	.5	8.2
	-1.44825	1	.5	.5	8.6
	-1.39746	2	.9	.9	9.5
	-1.34667	2	.9	.9	10.5
	-1.29588	1	.5	.5	10.9
	-1.24509	6	2.7	2.7	13.6
	-1.19429	3	1.4	1.4	15.0
	-1.14350	3	1.4	1.4	16.4
	-1.09271	2	.9	.9	17.3
	-1.04192	1	.5	.5	17.7
	-.99113	5	2.3	2.3	20.0
	-.94034	3	1.4	1.4	21.4
	-.88954	3	1.4	1.4	22.7
	-.83875	1	.5	.5	23.2
	-.78796	2	.9	.9	24.1
	-.73717	3	1.4	1.4	25.5
	-.68638	5	2.3	2.3	27.7
	-.63559	3	1.4	1.4	29.1
	-.58480	2	.9	.9	30.0
	-.53400	4	1.8	1.8	31.8

-.48321	2	.9	.9	32.7
-.43242	3	1.4	1.4	34.1
-.38163	3	1.4	1.4	35.5
-.33084	3	1.4	1.4	36.8
-.28005	3	1.4	1.4	38.2
-.22925	1	.5	.5	38.6
-.17846	3	1.4	1.4	40.0
-.12767	4	1.8	1.8	41.8
-.07688	3	1.4	1.4	43.2
-.02609	4	1.8	1.8	45.0
.02470	3	1.4	1.4	46.4
.07549	7	3.2	3.2	49.5
.12629	5	2.3	2.3	51.8
.17708	5	2.3	2.3	54.1
.22787	11	5.0	5.0	59.1
.27866	6	2.7	2.7	61.8
.32945	5	2.3	2.3	64.1
.38024	1	.5	.5	64.5
.43104	6	2.7	2.7	67.3
.48183	3	1.4	1.4	68.6
.53262	4	1.8	1.8	70.5
.58341	4	1.8	1.8	72.3
.63420	3	1.4	1.4	73.6
.68499	4	1.8	1.8	75.5
.73578	3	1.4	1.4	76.8
.78658	7	3.2	3.2	80.0
.83737	3	1.4	1.4	81.4
.88816	2	.9	.9	82.3
.93895	3	1.4	1.4	83.6
.98974	4	1.8	1.8	85.5
1.04053	1	.5	.5	85.9
1.09133	2	.9	.9	86.8
1.14212	2	.9	.9	87.7
1.19291	1	.5	.5	88.2
1.24370	2	.9	.9	89.1

		Frequency	Percent	Valid Percent	Cumulative Percent
	1.29449	3	1.4	1.4	90.5
	1.34528	3	1.4	1.4	91.8
	1.39607	2	.9	.9	92.7
	1.44687	2	.9	.9	93.6
	1.49766	3	1.4	1.4	95.0
	1.65003	1	.5	.5	95.5
	1.70082	2	.9	.9	96.4
	1.75162	1	.5	.5	96.8
	1.85320	2	.9	.9	97.7
	1.90399	1	.5	.5	98.2
	2.15795	1	.5	.5	98.6
	2.20874	2	.9	.9	99.5
	2.71665	1	.5	.5	100.0
	Total	220	100.0	100.0	

Zscore(SCC_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1.98615	2	.9	.9	.9
	-1.79813	3	1.4	1.4	2.3
	-1.61011	1	.5	.5	2.7
	-1.51610	4	1.8	1.8	4.5
	-1.42209	5	2.3	2.3	6.8
	-1.32809	6	2.7	2.7	9.5
	-1.23408	6	2.7	2.7	12.3
	-1.14007	5	2.3	2.3	14.5
	-1.04606	9	4.1	4.1	18.6
	-.95205	6	2.7	2.7	21.4
	-.85804	8	3.6	3.6	25.0
	-.76403	6	2.7	2.7	27.7
	-.67002	6	2.7	2.7	30.5
	-.57602	6	2.7	2.7	33.2
	-.48201	7	3.2	3.2	36.4
	-.38800	11	5.0	5.0	41.4
	-.29399	5	2.3	2.3	43.6

-.19998	6	2.7	2.7	46.4
-.10597	9	4.1	4.1	50.5
-.01196	8	3.6	3.6	54.1
.08204	10	4.5	4.5	58.6
.17605	3	1.4	1.4	60.0
.27006	5	2.3	2.3	62.3
.36407	7	3.2	3.2	65.5
.45808	15	6.8	6.8	72.3
.55209	2	.9	.9	73.2
.64610	5	2.3	2.3	75.5
.74010	6	2.7	2.7	78.2
.83411	1	.5	.5	78.6
.92812	4	1.8	1.8	80.5
1.02213	6	2.7	2.7	83.2
1.11614	5	2.3	2.3	85.5
1.21015	2	.9	.9	86.4
1.30416	4	1.8	1.8	88.2
1.39816	4	1.8	1.8	90.0
1.49217	2	.9	.9	90.9
1.58618	5	2.3	2.3	93.2
1.68019	3	1.4	1.4	94.5
1.77420	3	1.4	1.4	95.9
1.86821	1	.5	.5	96.4
1.96222	1	.5	.5	96.8
2.05622	1	.5	.5	97.3
2.15023	5	2.3	2.3	99.5
2.33825	1	.5	.5	100.0
Total	220	100.0	100.0	

Zscore(SE_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-2.41658	2	.9	.9	.9
	-2.26181	2	.9	.9	1.8
	-2.10704	3	1.4	1.4	3.2
	-1.95226	1	.5	.5	3.6
	-1.79749	3	1.4	1.4	5.0
	-1.64271	3	1.4	1.4	6.4
	-1.48794	4	1.8	1.8	8.2
	-1.33317	3	1.4	1.4	9.5
	-1.17839	11	5.0	5.0	14.5
	-1.02362	4	1.8	1.8	16.4
	-.86884	13	5.9	5.9	22.3
	-.71407	9	4.1	4.1	26.4
	-.55930	12	5.5	5.5	31.8
	-.40452	12	5.5	5.5	37.3
	-.24975	13	5.9	5.9	43.2
	-.09497	16	7.3	7.3	50.5
	.05980	12	5.5	5.5	55.9
	.21457	15	6.8	6.8	62.7
	.36935	9	4.1	4.1	66.8
	.52412	7	3.2	3.2	70.0
	.67889	12	5.5	5.5	75.5
	.83367	9	4.1	4.1	79.5
	.98844	10	4.5	4.5	84.1
	1.14322	8	3.6	3.6	87.7
	1.29799	5	2.3	2.3	90.0
	1.45276	7	3.2	3.2	93.2
	1.60754	7	3.2	3.2	96.4
	1.76231	4	1.8	1.8	98.2
	2.07186	3	1.4	1.4	99.5
	2.22663	1	.5	.5	100.0
	Total	220	100.0	100.0	

Zscore(DASS_ANXIETY_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1.04936	31	14.1	14.1	14.1
	-.85746	36	16.4	16.4	30.5
	-.66555	24	10.9	10.9	41.4
	-.47365	10	4.5	4.5	45.9
	-.28175	18	8.2	8.2	54.1
	-.08985	16	7.3	7.3	61.4
	.10206	10	4.5	4.5	65.9
	.29396	8	3.6	3.6	69.5
	.48586	12	5.5	5.5	75.0
	.67777	8	3.6	3.6	78.6
	.86967	4	1.8	1.8	80.5
	1.06157	6	2.7	2.7	83.2
	1.25347	7	3.2	3.2	86.4
	1.44538	8	3.6	3.6	90.0
	1.63728	5	2.3	2.3	92.3
	1.82918	5	2.3	2.3	94.5
	2.02108	5	2.3	2.3	96.8
	2.21299	1	.5	.5	97.3
	2.40489	1	.5	.5	97.7
	2.59679	2	.9	.9	98.6
	2.78870	2	.9	.9	99.5
	2.98060	1	.5	.5	100.0
	Total	220	100.0	100.0	

Zscore(DASS_DEPRESSION_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1.28256	17	7.7	7.7	7.7
	-1.12242	24	10.9	10.9	18.6
	-.96228	20	9.1	9.1	27.7
	-.80214	13	5.9	5.9	33.6
	-.64201	9	4.1	4.1	37.7
	-.48187	13	5.9	5.9	43.6
	-.32173	7	3.2	3.2	46.8
	-.16159	9	4.1	4.1	50.9
	-.00146	13	5.9	5.9	56.8
	.15868	8	3.6	3.6	60.5
	.31882	8	3.6	3.6	64.1
	.47896	13	5.9	5.9	70.0
	.63909	11	5.0	5.0	75.0
	.79923	7	3.2	3.2	78.2
	.95937	8	3.6	3.6	81.8
	1.11951	6	2.7	2.7	84.5
	1.27965	6	2.7	2.7	87.3
	1.43978	5	2.3	2.3	89.5
	1.59992	3	1.4	1.4	90.9
	1.76006	12	5.5	5.5	96.4
	1.92020	2	.9	.9	97.3
	2.08033	6	2.7	2.7	100.0
	Total	220	100.0	100.0	

Zscore(DASS_STRESS_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1.79875	10	4.5	4.5	4.5
	-1.60039	4	1.8	1.8	6.4
	-1.40204	6	2.7	2.7	9.1
	-1.20368	9	4.1	4.1	13.2
	-1.00532	13	5.9	5.9	19.1
	-.80696	17	7.7	7.7	26.8
	-.60860	13	5.9	5.9	32.7
	-.41024	16	7.3	7.3	40.0
	-.21188	22	10.0	10.0	50.0
	-.01352	15	6.8	6.8	56.8
	.18483	13	5.9	5.9	62.7
	.38319	10	4.5	4.5	67.3
	.58155	15	6.8	6.8	74.1
	.77991	13	5.9	5.9	80.0
	.97827	11	5.0	5.0	85.0
	1.17663	9	4.1	4.1	89.1
	1.37499	6	2.7	2.7	91.8
	1.57335	3	1.4	1.4	93.2
	1.77170	6	2.7	2.7	95.9
	1.97006	2	.9	.9	96.8
	2.16842	4	1.8	1.8	98.6
	2.36678	3	1.4	1.4	100.0
	Total	220	100.0	100.0	

Zscore(DASS_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1.51674	7	3.2	3.2	3.2
	-1.44946	1	.5	.5	3.6
	-1.38219	1	.5	.5	4.1
	-1.31491	4	1.8	1.8	5.9
	-1.24764	3	1.4	1.4	7.3
	-1.18036	5	2.3	2.3	9.5
	-1.11309	8	3.6	3.6	13.2
	-1.04581	5	2.3	2.3	15.5
	-.97854	11	5.0	5.0	20.5
	-.91126	10	4.5	4.5	25.0
	-.84399	7	3.2	3.2	28.2
	-.77672	5	2.3	2.3	30.5
	-.70944	3	1.4	1.4	31.8
	-.64217	7	3.2	3.2	35.0
	-.57489	3	1.4	1.4	36.4
	-.50762	7	3.2	3.2	39.5
	-.44034	6	2.7	2.7	42.3
	-.37307	4	1.8	1.8	44.1
	-.30579	5	2.3	2.3	46.4
	-.23852	6	2.7	2.7	49.1
	-.17124	4	1.8	1.8	50.9
	-.10397	2	.9	.9	51.8
	-.03670	2	.9	.9	52.7
	.03058	7	3.2	3.2	55.9
	.09785	6	2.7	2.7	58.6
	.16513	7	3.2	3.2	61.8
	.23240	4	1.8	1.8	63.6
	.29968	2	.9	.9	64.5
	.36695	5	2.3	2.3	66.8
	.43423	4	1.8	1.8	68.6
	.50150	5	2.3	2.3	70.9
	.56878	4	1.8	1.8	72.7
	.63605	2	.9	.9	73.6

.70332	1	.5	.5	74.1
.77060	7	3.2	3.2	77.3
.83787	5	2.3	2.3	79.5
.90515	4	1.8	1.8	81.4
.97242	3	1.4	1.4	82.7
1.03970	2	.9	.9	83.6
1.10697	2	.9	.9	84.5
1.17425	3	1.4	1.4	85.9
1.24152	2	.9	.9	86.8
1.30880	1	.5	.5	87.3
1.37607	4	1.8	1.8	89.1
1.44334	2	.9	.9	90.0
1.51062	4	1.8	1.8	91.8
1.64517	2	.9	.9	92.7
1.71244	1	.5	.5	93.2
1.77972	3	1.4	1.4	94.5
1.84699	2	.9	.9	95.5
1.91427	2	.9	.9	96.4
2.04882	2	.9	.9	97.3
2.11609	1	.5	.5	97.7
2.18336	1	.5	.5	98.2
2.31791	1	.5	.5	98.6
2.38519	1	.5	.5	99.1
2.45246	1	.5	.5	99.5
2.72156	1	.5	.5	100.0
Total	220	100.0	100.0	

Zscore(WEMWBS_TOTAL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-2.76256	1	.5	.5	.5
	-2.56950	3	1.4	1.4	1.8
	-2.37644	1	.5	.5	2.3
	-2.27991	2	.9	.9	3.2
	-1.89378	1	.5	.5	3.6
	-1.79725	1	.5	.5	4.1
	-1.70071	2	.9	.9	5.0
	-1.60418	1	.5	.5	5.5
	-1.50765	5	2.3	2.3	7.7
	-1.41112	3	1.4	1.4	9.1
	-1.31459	2	.9	.9	10.0
	-1.21806	7	3.2	3.2	13.2
	-1.12152	5	2.3	2.3	15.5
	-1.02499	5	2.3	2.3	17.7
	-.92846	5	2.3	2.3	20.0
	-.83193	6	2.7	2.7	22.7
	-.73540	7	3.2	3.2	25.9
	-.63886	6	2.7	2.7	28.6
	-.54233	6	2.7	2.7	31.4
	-.44580	6	2.7	2.7	34.1
	-.34927	8	3.6	3.6	37.7
	-.25274	7	3.2	3.2	40.9
	-.15621	6	2.7	2.7	43.6
	-.05967	12	5.5	5.5	49.1
	.03686	6	2.7	2.7	51.8
	.13339	4	1.8	1.8	53.6
	.22992	10	4.5	4.5	58.2
	.32645	4	1.8	1.8	60.0
	.42298	7	3.2	3.2	63.2
	.51952	5	2.3	2.3	65.5
	.61605	9	4.1	4.1	69.5
	.71258	8	3.6	3.6	73.2
	.80911	11	5.0	5.0	78.2

.90564	8	3.6	3.6	81.8
1.00218	4	1.8	1.8	83.6
1.09871	9	4.1	4.1	87.7
1.19524	5	2.3	2.3	90.0
1.29177	7	3.2	3.2	93.2
1.38830	3	1.4	1.4	94.5
1.48483	2	.9	.9	95.5
1.58137	2	.9	.9	96.4
1.67790	4	1.8	1.8	98.2
1.77443	3	1.4	1.4	99.5
1.96749	1	.5	.5	100.0
Total	220	100.0	100.0	

Appendix R: Normal distribution plots for questionnaire measures

Histogram

Mean = 1.16
Std. Dev. = 1.016
N = 220

Frequency / Mean_Total_IESR

Normal Q–Q Plot of Mean_Total_IESR

Expected Normal / Observed Value

CENTRALITY_TOTAL

Mean = 19.90
Std. Dev. = 8.408
N = 220

Normal Q–Q Plot of CES_TOTAL

Histogram

Mean = 31.94
Std. Dev. = 14.61
N = 220

OAS_TOTAL

Normal Q–Q Plot of OAS_TOTAL

Observed Value

Histogram

Mean = 50.51
Std. Dev. = 19.688
N = 220

SCS_TOTAL

Normal Q–Q Plot of SCS_TOTAL

Histogram

Mean = 33.13
Std. Dev. = 10.637
N = 220

SCC_TOTAL

Normal Q–Q Plot of SCC_TOTAL

Histogram

Mean = 15.61
Std. Dev. = 6.461
N = 220

SE_TOTAL

Normal Q–Q Plot of SE_TOTAL

Observed Value

Histogram

Mean = 8.01
Std. Dev. = 6.245
N = 220

DASS_DEPRESSION

Normal Q-Q Plot of DASS_DEPRESSION

Histogram

Mean = 5.47
Std. Dev. = 5.211
N = 220

DASS_ANXIETY

Normal Q–Q Plot of DASS_ANXIETY

Histogram

Mean = 9.07
Std. Dev. = 5.041
N = 220

DASS_STRESS

Normal Q–Q Plot of DASS_STRESS

Histogram

Mean = 22.55
Std. Dev. = 14.864
N = 220

DASS_TOTAL

Normal Q–Q Plot of DASS_TOTAL

WEMWBS_TOTAL

Mean = 42.62
Std. Dev. = 10.359
N = 220

Normal Q–Q Plot of WEMWBS_TOTAL

Appendix S: Upper to lower confidence intervals for the correlation coefficients

Variables	IES-R	CES	ES	IS	SCC	SE	DASS_A	DASS_D	DASS_S	DASS_T	WEMWBS
IES-R	1										
CES	.60- .73	1									
ES	.52-.68	.36-.56	1								
IS	-.51- -.27	-.45- -.21	-.80- -.66	1							
SCC	-.57 - -.33	-.52- -.28	-.68- -.46	.42-.63	1						
SE	-.59- -.40	-.55 - -.33	-.82- -.68	.70-.82	.47-.68	1					
DASS_A	.59 -.75	.28-.51	.54-.69	-.51- -.26	-.53- -.33	-.59- -.40	1				
DASS_D	.48-.68	.27- .49	.61-.76	-.69- -.53	-.62- -.38	-.81- -.71	.59-.74	1			
DASS_S	.53-.71	.27-.52	.54-.70	-.58- -.32	-.60 - -.38	-.61- -.41	.71-.81	.65-.78	1		
DASS_T	.61-.77	.32- .54	.65-.78	-.65- -.46	-.63- -.43	-.73- -.60	.86-.92	.87-.93	.89-.93	1	
WEMWBS	-.57- -.33	-.41- -.17	-.73- -.57	.62-.77	.38-.63	.69-.80	-.60- -.39	-.82- -.69	-.66- - .47	-.76 - -.60	1

Note. IES-R = Impact of Event, CES = Centrality Event, ES = External shame, IS = Internal Shame, SCC = self-concept clarity, SE = self-esteem, DASS_A = DASS_Anxiety subscale, DASS_D = Depression subscale, DASS_S = Stress subscale, DASS_T = DASS Total, WEMWBS = Wellbeing (Warwick-Edinburgh Mental Wellbeing Scale

Appendix T. Partial bivariate correlations between the variables when controlling for age

Variables	IES-R	CES	ES	IS	SCC	SE	DASS_A	DASS_D	DASS_S	DASS_T	WEMWBS
IES-R	1										
CES	.68**	1									
ES	.60**	.48**	1								
IS	-.39**	-.33**	-.74**	1							
SCC	-.46**	-.41**	-.57**	.53**	1						
SE	-.50**	-.46**	-.76**	.77**	.58**	1					
DASS_A	.68**	.42**	.62**	-.40**	-.43**	-.50**	1				
DASS_D	.58**	.39**	.70**	-.62**	-.50**	-.76**	.67**	1			
DASS_S	.63**	.40**	.63**	-.48**	-.50**	-.51**	.77**	.72**	1		
DASS_T	.69**	.45**	.72**	-.56**	-.53**	-.67**	.89**	.90**	.91**	1	
WEMWBS	-.45**	-.29**	-.66**	.70**	.51**	.75**	-.51**	-.76**	-.57**	-.69**	1

** Correlation is significant at $p < .001$.

Note. IES-R = Impact of event, CES = Centrality event, ES = External shame, IS = Internal shame, SCC = Self-concept clarity, SE = Self-esteem, DASS_A =Anxiety subscale, DASS_D = Depression subscale, DASS_S = Stress subscale, DASS_T = DASS Total, WEMWBS = wellbeing (Warwick-Edinburgh Mental Wellbeing Scale

Appendix U: SPSS output for the MANOVA

Descriptive Statistics

	Group	Mean	Std. Deviation	N
IESR22_TOTAL	Attachment	1.9796	1.57283	98
	Non-attachment	1.3525	1.56365	122
	Total	1.6318	1.59505	220
CENTRALITY_TOTAL	Attachment	22.5204	8.22396	98
	Non-attachment	17.8033	7.98308	122
	Total	19.9045	8.40770	220
OAS_TOTAL	Attachment	35.0816	13.49278	98
	Non-attachment	29.4180	15.03266	122
	Total	31.9409	14.61003	220
SocialComp_TOTAL	Attachment	45.8776	19.13612	98
	Non-attachment	54.2377	19.40693	122
	Total	50.5136	19.68832	220
SCC_TOTAL	Attachment	31.3367	10.04520	98
	Non-attachment	34.5656	10.91893	122
	Total	33.1273	10.63732	220
SE_TOTAL	Attachment	13.9694	6.06061	98
	Non-attachment	16.9344	6.49315	122
	Total	15.6136	6.46104	220
DASS_TOTAL	Attachment	25.2347	14.88083	98
	Non-attachment	20.3852	14.55423	122
	Total	22.5455	14.86446	220
WEMWBS_TOTAL	Attachment	39.9694	10.35101	98
	Non-attachment	44.7459	9.90414	122
	Total	42.6182	10.35928	220

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.990	2650.840[b]	8.000	211.000	.000
	Wilks' Lambda	.010	2650.840[b]	8.000	211.000	.000
	Hotelling's Trace	100.506	2650.840[b]	8.000	211.000	.000
	Roy's Largest Root	100.506	2650.840[b]	8.000	211.000	.000
Group	Pillai's Trace	.111	3.277[b]	8.000	211.000	.002
	Wilks' Lambda	.889	3.277[b]	8.000	211.000	.002
	Hotelling's Trace	.124	3.277[b]	8.000	211.000	.002
	Roy's Largest Root	.124	3.277[b]	8.000	211.000	.002

a. Design: Intercept + Group

b. Exact statistic

Appendix V: SPSS output for the MANCOVA

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.914	279.335[b]	8.000	210.000	.000	.914
	Wilks' Lambda	.086	279.335[b]	8.000	210.000	.000	.914
	Hotelling's Trace	10.641	279.335[b]	8.000	210.000	.000	.914
	Roy's Largest Root	10.641	279.335[b]	8.000	210.000	.000	.914
Dem_Age	Pillai's Trace	.091	2.641[b]	8.000	210.000	.009	.091
	Wilks' Lambda	.909	2.641[b]	8.000	210.000	.009	.091
	Hotelling's Trace	.101	2.641[b]	8.000	210.000	.009	.091
	Roy's Largest Root	.101	2.641[b]	8.000	210.000	.009	.091
Group	Pillai's Trace	.113	3.339[b]	8.000	210.000	.001	.113
	Wilks' Lambda	.887	3.339[b]	8.000	210.000	.001	.113
	Hotelling's Trace	.127	3.339[b]	8.000	210.000	.001	.113
	Roy's Largest Root	.127	3.339[b]	8.000	210.000	.001	.113

a. Design: Intercept + Dem_Age + Group
b. Exact statistic

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	IESR_TOTAL	8082.735[a]	2	4041.367	8.652	.000	.074
	CENTRALITY_TOTAL	1335.492[b]	2	667.746	10.244	.000	.086
	OAS_TOTAL	2054.272[c]	2	1027.136	4.987	.008	.044
	SocialComp_TOTAL	3843.697[d]	2	1921.849	5.146	.007	.045
	SCC_TOTAL	705.512[e]	2	352.756	3.180	.044	.028
	SE_TOTAL	545.949[f]	2	272.975	6.891	.001	.060
	DASS_TOTAL	1688.164[g]	2	844.082	3.922	.021	.035
	WEMWBS_TOTAL	1243.531[h]	2	621.766	6.062	.003	.053
Intercept	IESR_TOTAL	22437.355	1	22437.355	48.036	.000	.181
	CENTRALITY_TOTAL	6866.836	1	6866.836	105.341	.000	.327
	OAS_TOTAL	27671.955	1	27671.955	134.360	.000	.382
	SocialComp_TOTAL	56935.813	1	56935.813	152.443	.000	.413
	SCC_TOTAL	20071.085	1	20071.085	180.911	.000	.455
	SE_TOTAL	4076.094	1	4076.094	102.896	.000	.322
	DASS_TOTAL	15634.653	1	15634.653	72.649	.000	.251
	WEMWBS_TOTAL	37903.467	1	37903.467	369.526	.000	.630

Dem_Age	IESR_TOTAL	897.639	1	897.639	1.922	.167	.009
	CENTRALITY_TOTAL	126.235	1	126.235	1.937	.165	.009
	OAS_TOTAL	311.067	1	311.067	1.510	.220	.007
	SocialComp_TOTAL	45.375	1	45.375	.121	.728	.001
	SCC_TOTAL	138.938	1	138.938	1.252	.264	.006
	SE_TOTAL	68.174	1	68.174	1.721	.191	.008
	DASS_TOTAL	410.114	1	410.114	1.906	.169	.009
	WEMWBS_TOTAL	3.635	1	3.635	.035	.851	.000
Group	IESR_TOTAL	7844.256	1	7844.256	16.794	.000	.072
	CENTRALITY_TOTAL	1051.114	1	1051.114	16.125	.000	.069
	OAS_TOTAL	1945.151	1	1945.151	9.445	.002	.042
	SocialComp_TOTAL	3558.278	1	3558.278	9.527	.002	.042
	SCC_TOTAL	646.783	1	646.783	5.830	.017	.026
	SE_TOTAL	525.648	1	525.648	13.269	.000	.058
	DASS_TOTAL	1491.542	1	1491.542	6.931	.009	.031
	WEMWBS_TOTAL	1227.711	1	1227.711	11.969	.001	.052
Error	IESR_TOTAL	101360.043	217	467.097			
	CENTRALITY_TOTAL	14145.503	217	65.187			
	OAS_TOTAL	44691.960	217	205.954			

	SocialComp_TOTAL	81047.262	217	373.490
	SCC_TOTAL	24074.925	217	110.944
	SE_TOTAL	8596.210	217	39.614
	DASS_TOTAL	46700.381	217	215.209
	WEMWBS_TOTAL	22258.396	217	102.573
Total	IESR_TOTAL	252855.000	220	
	CENTRALITY_TOTAL	102643.000	220	
	OAS_TOTAL	271195.000	220	
	SocialComp_TOTAL	646249.000	220	
	SCC_TOTAL	266212.000	220	
	SE_TOTAL	62775.000	220	
	DASS_TOTAL	160214.000	220	
	WEMWBS_TOTAL	423090.000	220	
Corrected Total	IESR_TOTAL	109442.777	219	
	CENTRALITY_TOTAL	15480.995	219	
	OAS_TOTAL	46746.232	219	
	SocialComp_TOTAL	84890.959	219	
	SCC_TOTAL	24780.436	219	
	SE_TOTAL	9142.159	219	

	DASS_TOTAL	48388.545	219					
	WEMWBS_TOTAL	23501.927	219					

a. R Squared = .074 (Adjusted R Squared = .065)
b. R Squared = .086 (Adjusted R Squared = .078)
c. R Squared = .044 (Adjusted R Squared = .035)
d. R Squared = .045 (Adjusted R Squared = .036)
e. R Squared = .028 (Adjusted R Squared = .020)
f. R Squared = .060 (Adjusted R Squared = .051)
g. R Squared = .035 (Adjusted R Squared = .026)
h. R Squared = .053 (Adjusted R Squared = .044)

Appendix W: Regression plot for hierarchical multiple regression 1: Psychological distress

Scatterplot
Dependent Variable: DASS_TOTAL
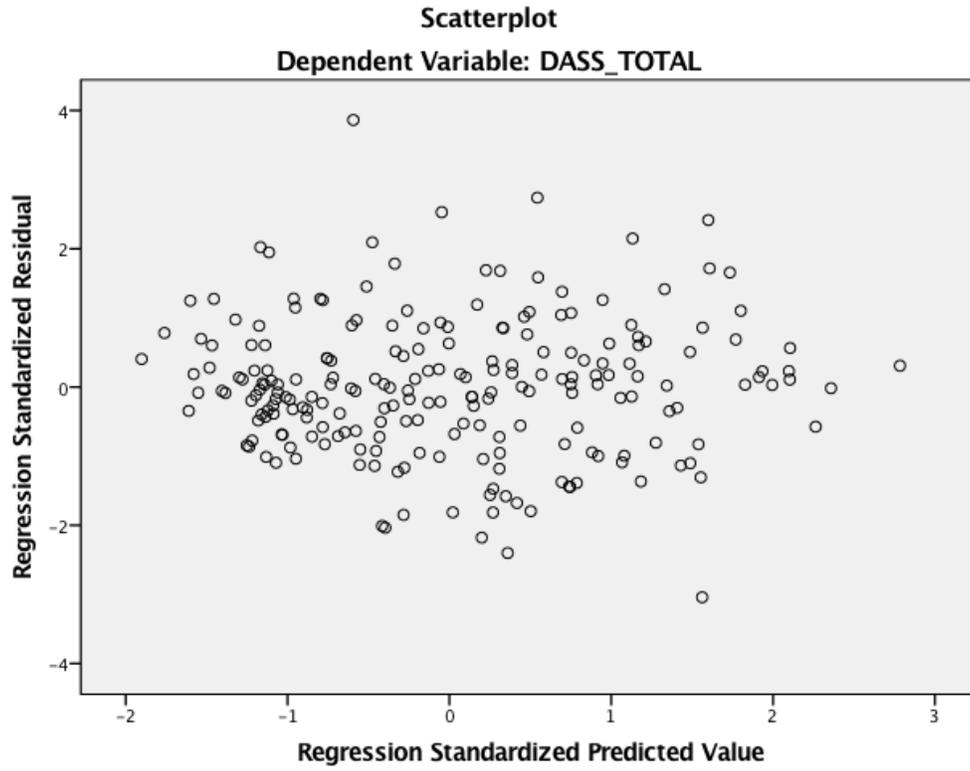
Appendix X: SPSS output for hierarchical multiple regression I: Psychological distress

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.695[a]	.483	.478	10.73519
2	.799[b]	.639	.632	9.01183
3	.814[c]	.663	.655	8.73433
4	.816[d]	.666	.657	8.71095

a. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL

b. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL

c. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL, SE_TOTAL

d. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL, SE_TOTAL, SCC_TOTAL

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23380.540	2	11690.270	101.439	.000[b]
	Residual	25008.005	217	115.244		
	Total	48388.545	219			
2	Regression	30927.744	4	7731.936	95.206	.000[c]
	Residual	17460.801	215	81.213		
	Total	48388.545	219			
3	Regression	32062.792	5	6412.558	84.057	.000[d]
	Residual	16325.754	214	76.289		
	Total	48388.545	219			

4	Regression	32225.968	6	5370.995	70.782	.000[e]
	Residual	16162.578	213	75.881		
	Total	48388.545	219			

a. Dependent Variable: DASS_TOTAL

b. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL

c. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL

d. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL, SE_TOTAL

e. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL, SE_TOTAL, SCC_TOTAL

Bootstrap for Coefficients

Model		B	Bootstrap[a]				
			Bias	Std. Error	Sig. (2-tailed)	95% Confidence Interval	
						Lower	Upper
1	(Constant)	12.036	-.023	2.085	.001	7.943	16.324
	IESR_TOTAL	.485	.001	.041	.001	.399	.565
	CENTRALITY_TOTAL	-.094	.002	.122	.452	-.332	.155
2	(Constant)	9.739	-.205	4.040	.016	1.598	17.478
	IESR_TOTAL	.322	.001	.042	.001	.234	.406
	CENTRALITY_TOTAL	-.204	.004	.107	.056	-.411	.003
	OAS_TOTAL	.407	.001	.071	.001	.268	.542
	SocialComp_TOTAL	-.086	.002	.041	.037	-.162	-.004
3	(Constant)	19.210	-.347	4.708	.001	8.757	27.771
	IESR_TOTAL	.315	.001	.041	.001	.235	.396
	CENTRALITY_TOTAL	-.250	.003	.103	.019	-.457	-.041
	OAS_TOTAL	.306	.003	.073	.001	.172	.458
	SocialComp_TOTAL	.004	.001	.044	.912	-.080	.095
	SE_TOTAL	-.623	.007	.152	.001	-.905	-.303
4	(Constant)	22.469	-.375	5.236	.001	11.375	32.185

IESR_TOTAL	.309	.001	.042	.001	.229	.392
CENTRALITY_TOTAL	-.262	.002	.105	.017	-.469	-.046
OAS_TOTAL	.293	.005	.074	.002	.159	.447
SocialComp_TOTAL	.012	.001	.045	.776	-.076	.107
SE_TOTAL	-.581	.010	.157	.001	-.866	-.237
SCC_TOTAL	-.105	-.002	.073	.148	-.265	.030

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Appendix Y: Regression plot for hierarchical multiple regression II: Psychological wellbeing

Scatterplot
Dependent Variable: NEW_WEM_TOTAL
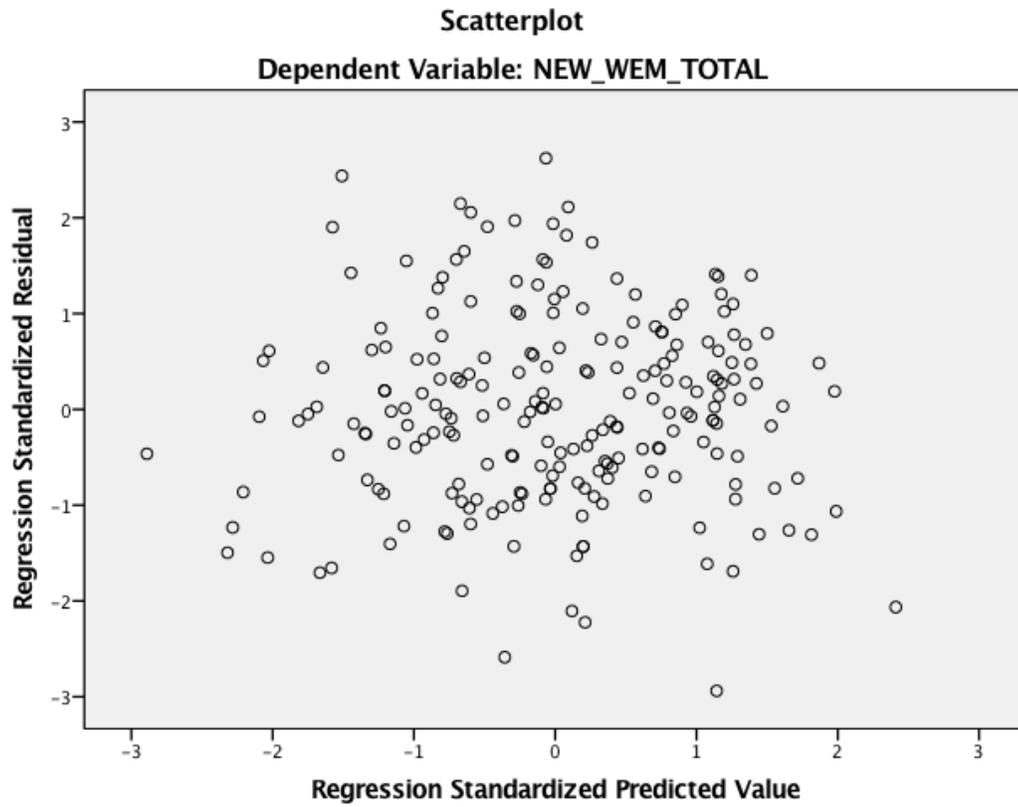
Appendix Z: SPSS output for hierarchical multiple regression II: Psychological wellbeing

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.452[a]	.205	.197	9.28076
2	.742[b]	.550	.542	7.01220
3	.788[c]	.621	.612	6.45489
4	.789[d]	.623	.612	6.45305

a. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL

b. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL

c. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL, SE_TOTAL

d. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL, SE_TOTAL, SCC_TOTAL

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4811.191	2	2405.595	27.929	.000[b]
	Residual	18690.736	217	86.132		
	Total	23501.927	219			
2	Regression	12930.186	4	3232.547	65.741	.000[c]
	Residual	10571.741	215	49.171		
	Total	23501.927	219			
3	Regression	14585.478	5	2917.096	70.012	.000[d]
	Residual	8916.449	214	41.666		
	Total	23501.927	219			

4	Regression	14632.215	6	2438.702	58.564	.000[e]
	Residual	8869.712	213	41.642		
	Total	23501.927	219			

a. Dependent Variable: WEMWBS_TOTAL

b. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL

c. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL

d. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL, SE_TOTAL

e. Predictors: (Constant), CENTRALITY_TOTAL, IESR_TOTAL, SocialComp_TOTAL, OAS_TOTAL, SE_TOTAL, SCC_TOTAL

Bootstrap for Coefficients

Model		B	Bias	Std. Error	Sig. (2-tailed)	95% Confidence Interval Lower	Upper
1	(Constant)	47.774	.054	1.733	.001	44.450	51.257
	IESR_TOTAL	-.213	.004	.043	.001	-.293	-.129
	CENTRALITY_TOTAL	.015	-.006	.105	.884	-.203	.212
2	(Constant)	34.005	-.044	3.604	.001	27.418	41.110
	IESR_TOTAL	-.092	.001	.037	.007	-.166	-.019
	CENTRALITY_TOTAL	.131	-.004	.084	.130	-.045	.289
	OAS_TOTAL	-.154	.002	.058	.014	-.268	-.037
	SocialComp_TOTAL	.263	.001	.038	.001	.190	.337
3	(Constant)	22.568	.047	3.507	.001	15.972	29.649
	IESR_TOTAL	-.082	.000	.033	.016	-.144	-.019
	CENTRALITY_TOTAL	.188	-.005	.075	.008	.026	.324
	OAS_TOTAL	-.033	.002	.054	.517	-.141	.071

	SocialComp_TOTAL	.153	.002	.043	.002	.070	.238
	SE_TOTAL	.752	-.006	.124	.001	.495	.995
4	(Constant)	20.823	-.169	3.875	.001	13.477	28.475
	IESR_TOTAL	-.079	.002	.034	.019	-.142	-.011
	CENTRALITY_TOTAL	.194	-.005	.075	.007	.035	.326
	OAS_TOTAL	-.026	.003	.056	.622	-.133	.087
	SocialComp_TOTAL	.149	.001	.043	.002	.060	.231
	SE_TOTAL	.730	-.009	.128	.001	.467	.968
	SCC_TOTAL	.056	.007	.056	.329	-.041	.177

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples