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**UNIVERSITY OF SOUTHAMPTON**

FACULTY OF SOCIAL, HUMAN AND MATHEMATICAL SCIENCES

School of Psychology

**Early Shaming Experiences and Psychological Distress: The Role of Experiential  
Avoidance, Self-Compassion and Fear of Self-Compassion**

Volume 1 of 1

by

**Jordan Farr**

Thesis for the degree of Doctorate in Clinical Psychology

September 2019



# UNIVERSITY OF SOUTHAMPTON

## **ABSTRACT**

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**Early Shaming Experiences and Psychological Distress: The Role of Experiential  
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The first chapter of this thesis consists of a systematic review of the literature exploring the role of self-compassion in promoting positive mental health. This review aimed to synthesise the research literature to ascertain if self-compassion was associated with increased levels of positive mental health relating to social, emotional and psychological well-being. In total, 16 studies were included and evaluated using a quantitative study quality assessment protocol to determine the quality of such research.

Results offered preliminary support for the positive role that self-compassion plays in promoting increased levels of positive mental health. This offers broader clinical implications into the potential benefits of self-compassion in enhancing positive mental health within psychological interventions.

Chapter two of this thesis aimed to explore the impact of early shaming experiences on psychological distress (i.e. depression and anxiety) through the mediating effect of experiential avoidance, as well as exploring if this mediation was moderated by levels of self-compassion. Additionally, there is growing evidence that fear of self-compassion leads to increased vulnerability to psychological distress (Gilbert, McEwan, Matos & Ravis, 2011). Therefore, it was explored if fear of self-compassion mediated the relationship between early shaming experiences and psychological distress. In total, 556 participants were recruited, this consisted of individuals from a student population and the general population. Findings showed that self-compassion moderated the mediating effects of experiential avoidance within the relationship between early shaming experiences and depressive symptoms. However, this was not applicable to anxiety symptoms. This indicated that self-compassion may weaken the effects of experiential avoidance on depressive symptoms, leading to lower levels of depressive symptoms. Furthermore, fear of self-compassion was found to significantly mediate the relationship between early shaming experiences and psychological distress. Such findings offer important clinical implications for the positive effects of self-compassion in ameliorating psychological distress.



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## **Research Thesis: Declaration of Authorship**

**Print Name:** Jordan Farr

Title of thesis: Early shaming experiences and psychological distress: the role of experiential avoidance, self-compassion and fear of self-compassion

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before

Signature:

Date:





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I would like to dedicate this in the memory of my late grandmother, who has always been supportive and caring in anything I aspired to pursue. I hope this has made you proud.



# **Chapter 1: A critical review exploring the role of self-compassion in promoting positive mental health**

## **1.1 Introduction**

The growth of positive psychology has paralleled an increase in research exploring multiple dimensions of well-being through the construct of positive mental health (Keyes, 2002). This has resulted in an enhanced interest in psychological processes that may promote positive mental health. In consideration of the domain of positive psychology, the construct of self-compassion has emerged within the research literature and its relationship with increased well-being (Neff, Rude & Fitzpatrick, 2007). Self-compassion has been defined as a healthy attitude toward oneself and is assumed to influence individuals' response to adversity (Neff, 2003a). With this in mind, the current review aims to synthesise the available evidence in the literature on the relationship between self-compassion and positive mental health.

### **1.1.1 Self-compassion definitions**

Compassion is a concept that has been discussed for thousands of years within a spiritual and religious context (Goetz, Keltner, & SimonThomas, 2010). Originating from Buddhism, compassion is described as both, being moved by and desiring to alleviate the distress of others and one's own distress (Neff, 2003a; Neff, 2003b). Compassion describes "being touched by the suffering of others, opening one's awareness to others pain and not avoiding or disconnecting from it, so that feelings of kindness toward others and the desire to alleviate their suffering emerge" (Neff, 2003a, pp. 86-7). Within the literature, a diverse range of conceptualisations of what compassion encompasses are offered (Strauss et al., 2016). For example, Jazaieri et al. (2013) proposed that compassion is a multidimensional construct, consisting of four factors relating to: (1) an awareness of suffering (cognitive component), (2) sympathetic concern related to being emotionally

moved by suffering (affective component), (3) a wish to see the relief of that suffering (intentional component), and (4) a responsiveness or readiness to help relieve that suffering (motivational component). Others have debated whether compassion is an emotion (Goetz et al., 2010) or part of a motivational system (Gilbert, 2014).

Within western psychological research, there has been a significant growth of interest within extending compassion towards the self through the construct of self-compassion (Davidson & Harrington, 2002; Gilbert 2000, 2005, 2009a; Kirby, 2017; Neff 2003a, 2003b). The research literature has described self-compassion as a healthy attitude towards the self through relating to oneself in an understanding, warm and non-judgemental approach in moments of adversity involving failures and hardship (Neff, 2003). Based on such notions, Neff (2003) defines self-compassion as occurring by ‘being open to and moved by one’s own suffering, experiencing feelings of caring and kindness toward oneself, taking an understanding, non-judgmental attitude toward one’s inadequacies and failures, and recognizing that one’s experience is part of the common human experience’ (Neff, 2003a, p. 224).

Neff’s (2003) conceptualisation of self-compassion is one of a range of different definitions proposed within the research literature concerning self-compassion (Strauss et al., 2016). Indeed, varying definitions currently exist based on different theoretical principles, with a recent review concluding that there remains no general consensus in offering an established conceptualisation of self-compassion despite ever increasing research investigating self-compassion (Strauss et al., 2016). Theoretical perspectives have defined self-compassion from Buddhist (Neff, 2003) and evolutionary (Gilbert, 2005) approaches. For example, influenced by Buddhist teaching, a widely-used conceptualisation of self-compassion is proposed by Neff (2003). Neff’s description of self-compassion put forward that self-compassion is encapsulated by three bipolar interconnected factors. These include: (1) self-kindness, relating to treating oneself with kindness as opposed to harsh self-criticism or judgment; (2) common humanity,

acknowledging that suffering is part of the common human experience versus isolation and disconnection; and (3) mindfulness, accepting suffering while holding it in balanced awareness versus over-identification with suffering. It is posited that such individual components are interrelated and interact to form a self-compassionate frame of mind (Neff & Costigan, 2014) and are instrumental in allowing the self to hold one's feelings of suffering with a sense of warmth, connection, and concern (Neff & McGehee 2010).

In contrast to this, approaching self-compassion from an evolutionary perspective, Gilbert (2010) argued that compassion is an evolved motivational system that originates from the same care motivational systems that primates evolved to form attachment relationships and engage in affiliative behaviours for group survival. Therefore, Gilbert sees self-compassion as stimulating the same caregiving motivational systems that guides the caring-system to nurture and protect offspring (Gilbert, 2005). Gilbert defines self-compassion as 'the sensitivity to suffering in self and others, with a commitment to try to alleviate and prevent it' (Gilbert, 2014, p.19). This perspective is based on two domains of psychologies relating to an ability to tolerate suffering, as well as a dedication to attempt to alleviate it. Gilbert (2014) proposed that self-compassion involves being open to experiencing suffering and being kind to oneself in experiencing this. According to Gilbert (2009), self-compassion is encapsulated by six fundamental competencies relating to sensitivity, sympathy, empathy, motivation, caring and distress tolerance.

### **1.1.2 Self-compassion theory**

Rooted in evolutionary, attachment and neuroscience theory principles, the social mentality theory (Gilbert, 1989, 2000) proposes that self-compassion has evolved from motivational systems that were initially evolved for relating to others with compassion within attachment relationships to maximise survival for offspring (Gillath, Shaver, & Mikulincer, 2005). These motivational systems are known as social mentalities, defined as

internal motivational systems that “generate patterns of cognition, affect and behaviour ... that allow for the enactment of social roles” (Gilbert, 2000, p. 120). According to theorists, social mentalities have evolved to overcome challenges essential for survival, such as mating with sexual partners, competing for valued resources, cooperation and alliance formation, and care-seeking and caregiving (Gilbert 2000, 2005). Gilbert (1989, 2000) proposed that a range of social mentalities exist to guide specific cognitions, affect and behaviours when in social interaction with others in responding to social signals from others. For example, seeking affiliation with a friend versus seeking dominance of a rival will elicit different cognitions, affect and behaviours within these different social roles (Hermanto & Zuroff, 2016).

According to Gilbert (2005), compassion is underpinned by caregiving and care-seeking social mentalities that evolved through the emergence of mammals caring for offspring and group living introducing a number of care-based behaviours (Carter, 1998; Porges, 2007). These mentalities enabled the attachment figure to respond to the child’s distress with sensitivity and to sooth them (Gilbert, 2009). Based on this, Gilbert (1989, 2000) suggests that the capacity to be compassionate towards the self through self-compassion is embedded within the same motivational systems. Specifically, self-to-self relating through self-compassion is proposed to activate the same caregiving and care-seeking social mentalities that are triggered within the attachment system when interacting with others (i.e., comforting a crying child). Accordingly, Gilbert argues that human beings possess higher order cognitive processes (i.e. self-awareness, reflection) that enable individuals to respond to their own distress with compassion, in the same manner that they would extend it to others (Gilbert, 2000; Hermanto & Zuroff, 2016).

Gilbert (2005, 2009) postulates that specific social mentalities stimulate specialised neurophysiological pathways linked to different emotional regulatory systems that have evolved for core survival purposes in detecting threat, sourcing resources necessary for survival and reproduction, as well regulating affect in affiliative relationships (Depue &

Morrone-Strupinsky, 2005). In accordance with this, the tripartite model of affective regulation (Gilbert, 2009) proposes that three interacting affective emotional regulatory systems have evolved that trigger different emotional responses to meet such evolutionary needs (Depue & Moronne-Strupinsky, 2005). These are known as the threat, drive and soothing system. Such systems are believed to be triggered by different social mentalities (Gilbert, 2015). For example, competitive social mentalities triggered by social signals of threat to one's safety (i.e. someone being aggressive towards oneself) are hypothesised to trigger the threat system. This is linked to affective defense responses such as shame, anxiety, anger that guide protective-based behaviours (e.g. fight, flight, freeze & submission) to protect oneself against perceived threat (Gilbert, 2009). These behaviours are all in the motive of keeping oneself safe (Gilbert, 2015).

Based on this, signals of affiliation (i.e. compassion) from others or from the self through care-giving and care-seeking social mentalities are theorised to stimulate neurophysiological pathways linked to the soothing/ affiliative system. The stimulation of the soothing system is associated with the activation of positive affiliative emotions such as contentment, safeness and connectedness that are postulated to have a soothing effect on negative affective states (Gilbert, 2005). According to Gilbert (2009), the soothing system performs two functions that promote increased well-being. This includes operating as a powerful regulator of threat-based negative affective responses such as shame, anxiety and anger that are associated with reduced well-being (Gilbert, 2009; Gilbert, McEwan, Mitra, Franks, Richter, & Rockliff, 2008). Secondly, the soothing system also elicits positive affiliative emotions (i.e., safeness, contentment) associated with increased well-being (Gilbert, 2015). This is corroborated by empirical neuroscience research findings indicating that experiencing affiliative signals (e.g., compassion) stimulates powerful hormones such as oxytocin associated with well-being and contentment (Gilbert, 2009, 2010; Gilbert et al., 2008; Porges, 2007).

Influenced by attachment theory (Bowlby, 1969, 1973, 1980), Gilbert (2005) argued that the soothing system evolved in parallel with the attachment system. Based on this, the attachment figure provides a 'safe base' that enables exploration and healthy affective regulation (Gilbert, 2005). As such, these experiences are theorised to shape the development of the soothing system, in becoming sensitive to social signals in the form of warmth, kindness and care that increase well-being (Gilbert, 2005). Furthermore, growing evidence has shown that caring behaviours (e.g. kindness) of the caregiver towards the child (i.e. comforting them), has a soothing effect on the infant's physiology through oxytocin receptors within the amygdala and parasympathetic nervous system that regulate distress during instances of perceived threat (Depue & Morrone-Strupinsky, 2005; Porges, 2007). Indeed, empirical evidence illustrated that soothing processes activate specific brain regions associated with stress reduction and positive affect (Depue & Morrone-Strupinsky, 2005; Longe et al., 2010; Lutz, Brefczynski-Lewis, Johnstone, & Davidson, 2008). Additionally, Porges (2007) suggests that early positive emotional and relational experiences are powerful physiological and psychological regulators which promote feelings of safeness and soothing, due to the activation of the attachment system.

Based on this, Gilbert asserts that self-compassion stimulates the same physiological systems activated by the attachment system (Gilbert, 2005). Empirical evidence has corroborated such suggestions, demonstrating a positive association between self-compassion and care-giving and care-seeking (Hermanto & Zuroff, 2016). Moreover, the formation of the attachment system is posited to be influential within how an individual relates to the self (Bowlby, 1969; Gilbert, 2009). Indeed, findings have shown that individuals with higher levels of self-compassion were found to have secure attachments due to experiencing high levels of maternal sensitivity within their childhood (Neff & McGhee, 2010) This suggests that the attachment system is rooted in extending compassion towards the self.



In moments of distress, self-compassion stimulates the soothing system by promoting the capacity to tolerate distress associated with negative affective states through not engaging in avoidance-based behaviours linked to the threat system and associated with reduced levels of well-being, by instead soothing such distress (Allen & Leary, 2010). Positive affect and increased well-being are found to be experienced by self-compassion activating neurophysiological pathways associated with feelings of safeness and social connectedness (Klimecki, Leiberg, Ricard & Singer, 2013). In fact, feelings of safeness and connectedness have been found to have a stronger association with well-being compared to other factors such as social support or positive affect (Kelly, Zuroff, Leybman, & Gilbert, 2012). Additionally, self-compassion is proposed to promote positive affect through displaying self-kindness, warmth and understanding to the self, that soothes negative-affect leading to increased levels of well-being in moments of adversity (Lutz, Brefczynski-Lewis, Johnstone, & Davidson, 2008; Neff, 2003). In support of this, Leary et al. (2007) found that self-compassionate individuals were less likely to over-identify with moments of failure and instead observed such events objectively, leading to increased well-being.

However, despite Gilbert's (2009, 2014) tripartite model of affective regulation systems offering a strong framework for understanding the development of both mental health difficulties (Gilbert & Proctor, 2006) and wellbeing (Kelly, Zuroff, Leybman, & Gilbert, 2012), there are limitations within its theoretical foundations. Firstly, in placing significant emphasis on early affiliative interactions with primary caregivers (e.g. mother, father) in the development of self-compassion and the soothing system, the tripartite model (Gilbert, 2009, 2014) potentially overlooks the role of affiliative experiences with figures beyond the primary caregiver (e.g. peers, teachers). Largely embedded within attachment theory (Bowlby, 1969), Gilbert's model argues that affiliative experiences comprised of warmth, care and attunement with key primary caregivers are significantly influential in

the development of higher levels of self-compassion, linked to increased well-being (Cheng & Fernham, 2004; DeHart, Pelham & Tennen, 2006).

However, increasing emerging evidence has indicated that positive affiliative experiences with other figures such as peers in adolescence may also play a significant role in promoting self-compassion and self-soothing abilities (Duarte & Pinto-Gouveia, 2017). Indeed, it is widely attested within the literature that beyond the family environment, peer-related positive experiences are integral in creating a sense of belonging and increased wellbeing (Allen & Land, 1999).

This is corroborated with research consistently showing that adolescence is an influential period involving increased value being placed upon peer-group relationships, with greater reliance on peers as a source of emotional support, alongside the decrease of parental influence (Allen & Land, 1999; Gilbert & Irons, 2009). Therefore, the nature of other relationships beyond the primary caregiver may further influence the formation of self-compassion and self-nurturing abilities. This is supported by research findings illustrating that recall of positive memories consisting of warmth, safeness and kindness with peers in adolescence were associated with greater levels of self-compassion (Cunha et al., 2017; Ferreira et al., 2018). In contrast to this, experiences of bullying within adolescence by peers were associated with deleterious consequences, including lower levels of self-compassion, as well as higher levels of self-criticism and depressive symptoms (Duarate & Pinto-Gouveia, 2017; Matos, & Pinto-Gouveia, 2014).

Additionally, Matos and Pinto-Gouveia, (2014) found that negative affiliative experiences with figures other than parents (e.g. teachers, peers & strangers) were linked to reduced levels of well-being by experiencing increased levels of shame and depressive symptoms. Thus, this suggests that self-compassionate abilities may not solely be developed within the attachment relationship during early formative years, yet also in relationships with others. As a result, further consideration of other affiliative experiences is an important aspect to consider within the development of the soothing system.

In addition, a further limitation of Gilbert's (2009) tripartite model is the scarcity of empirical evidence supporting proposals that self-compassion stimulates specialised neurophysiological systems (i.e., the parasympathetic nervous system), linked to increased wellbeing, as well as feelings of security and safeness (Engen & Singer, 2015; Gilbert, 2009). Drawing largely upon attachment (Bowlby, 1969) and neurophysiological theory (Porges, 2007), Gilbert (2009, 2014) proposes that self-compassion stimulates the same soothing physiological responses that are experienced when a child is soothed by their primary caregiver. Indeed, growing research evidence has illustrated the calming effects on a child's physiology when receiving care from others through activating oxytocin receptors within the amygdala and parasympathetic nervous system that downregulate distress (Depue & Morrone-Strupinsky, 2005; Porges, 2007). Such responses are linked to inhibiting sympathetic nervous system threat responses (e.g. fight or flight) associated with increased distress levels (Depue & Morrone-Strupinsky, 2005).

However, while the research literature attests that affiliative interactions of receiving care and kindness from attachment figures stimulates neurophysiological systems linked to increased wellbeing (Porges, 2007), evidence for self-compassion stimulating the same systems is scarce (Kirscher et al., 2019). In fact, Kirschner et al. (2019) argues that although Gilbert's tripartite model is largely based upon neurophysiological theory, most current research evidence corroborating the positive effects of self-compassion is based only on trait and/or state measurements using self-report measurements (e.g., self-compassion scale, Neff, 2003).

Consequently, theorists have maintained there is a need for empirical evidence using physiological measurements in conjunction with self-report measurements to support notions of self-compassion stimulating neurophysiological soothing responses (Holmes, Craske & Graybiel, 2014). It has been suggested that heart rate variability (HRV) is one source of physiological measurement that may be employed to measure the physiological effects of self-compassion (Arch et al., 2014). In support of this, empirical evidence has

found that interpersonal affiliative acts are associated with balancing both sympathetic and parasympathetic nervous system activity, which is associated with greater heart rate variability (HVR; Porges, 2007). Increasing evidence has connected greater heart rate variability to increased capacities to self-soothe, thus promoting increased well-being (Porges, 2007; Thayer & Lane, 2007). Conversely, individuals who feel unsafe and are more threat-focused have been found to have lower levels of HRV, resulting in greater levels of physical and mental health difficulties (Porges, 2007). In summary, while Gilbert's (2009) tripartite model of affective regulation offers encouraging findings, further research is still required to further understand the underlying mechanisms that self-compassion stimulates (Kirschner et al., 2019).

### **1.1.3 Self-compassion and well-being**

The emergence and growth of positive psychology has seen an increase in research investigating the association between self-compassion and increased positive well-being. This focuses on looking beyond mental health symptomatology based measurements, by exploring the presence of increased well-being (e.g., positive affect, life satisfaction). In fact, developing self-compassion has been seen to promote a range of psychological benefits (Barnard & Curry, 2011). This includes enhancing life satisfaction (Allen & Leary 2010; Hope, Koestner & Milyavskaya, 2014), promoting the application of effective coping strategies in times of distress (Terry, Leary & Mehta, 2013), resilience (Neff & McGehee 2010) and generating positive emotions through the acceptance of negative states (Germer & Neff 2013) or soothing such emotional distress (Sirois, Kitner & Hirsch, 2015). The growth of interest in the benefits of self-compassion has led to accumulating evidence for the application of compassion-based therapies such as compassion-focused therapy (CFT; Gilbert, 2005), with the objective of cultivating self-compassion through various experiential exercises. Neff (2003) postulates that cultivating self-compassion can

enhance psychological well-being through increasing levels of happiness, social connectedness and improved positive affect (Wei et al., 2011).

Furthermore, a recent meta-analysis conducted by Zessin, Dickhauser and Garbade (2015) involving 79 studies offered preliminary support for a positive association between self-compassion and well-being. More specifically, results showed that self-compassion was positively linked with different forms of well-being, such as cognitive (i.e., positive appraisals) and psychological well-being (i.e., personal growth). Such findings further illustrate the associated benefits of self-compassion, through increased positive appraisals towards the self, as well as facilitating greater levels of psychological well-being by promoting increased self-development. However, although such findings are promising in beginning to understand the relationship between self-compassion and different forms of well-being, Zessin et al. (2015) identified that there remains a limited understanding of the nature of the relationship between self-compassion and distinctive components of each form of well-being. More specifically, it was acknowledged that many studies within Zessin et al.'s (2015) meta-analytic review investigated different forms of well-being as whole global constructs, rather than exploring the unique features of each form of well-being as multidimensional constructs by looking at subscales. For example, the need for further exploration into the association between self-compassion and distinctive facets of psychological well-being (i.e., self-acceptance, personal growth, purpose in life) was highlighted due to the limited understanding in the relationship between self-compassion and psychological well-being as a multifaceted construct. Due to Zessin et al.'s (2015) meta-analysis adopting a holistic view of well-being, it was identified that further research deconstructing the relationship between self-compassion and different forms of well-being as multifaceted constructs are required.

#### **1.1.4 Positive mental health**

For a long period of time, the concept of mental health has largely been understood as relating to the absence of psychopathology symptoms such as anxiety and depression (Bluth & Blanton, 2015). However, within recent years, there has been considerable revisions within this definition, moving away from a purely deficit based model that focuses on the absence of mental health symptoms (Bluth & Blanton, 2015). The definition of mental health has evolved over time by focusing more on well-being and functioning. Indeed, the World Health Organization (WHO 2005, p. 2) define mental health as “a state of well-being in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”. The three fundamental components of this definition are (1) well-being, (2) effective functioning of an individual, and (3) effective functioning for a community (WHO 2005, p. 2).

Furthermore, contemporary psychology approaches have begun to describe mental health as a construct of well-being reflected in both positive and negative affect (Kahl, Winter & Schweiger, 2012). Through such developments within the definition of mental health, there has been a growth of interest within the concept of ‘positive mental health’ (Keyes, 2005). Positive mental health is defined as a form of subjective well-being captured in different aspects of an individual’s life regarding their social, emotional and psychological well-being relating to how an individual perceives themselves as functioning in such domains (Keyes et al., 2012). According to theorists, positive mental health is representative of the interrelationship between social, emotional and psychological well-being and cannot be determined by one factor (Keyes, 2002, 2005; Lamers, Westerhof, Glas & Bohlmeijer, 2015).

Concepts that have been discussed frequently within positive mental health literature relating to well-being, are hedonic and eudaimonic well-being (Keyes, 2005;

Ryan & Deci, 2001). These concepts are regarded as two distinct, yet complementary concepts of well-being that encompass different elements of well-being (Ryan & Deci, 2001). Such constructs are viewed as representative of distinctive features of positive mental health (Keyes, 2005). Research has supported suggestions that distinct forms of well-being exist, with findings indicating that eudaimonic well-being only moderately correlates with measures of hedonic well-being (Keyes et al. 2002; Ryff 1989).

Hedonic well-being is described as capturing elements of emotional well-being (Keyes, 2007) through experiencing a sense of pleasure that is reflected in increased positive affect and satisfaction with life (Diener 2000; Diener, Suh, Lucas & Smith, 1999; Fredrickson 2001). Within the domain of hedonic well-being, it is posited that hedonic well-being is increased by maximising pleasant affect and experiencing minimal unpleasant feelings (Lamers, Westerhof, Bohlmeijer, ten Klooster & Keyes, 2011).

In contrast, eudaimonic well-being is comprised of two multi-dimensional aspects of psychological well-being and social well-being (Keyes, 2002). Eudaimonic well-being is characterised by living a life full of meaning and purpose through the process of self-development/self-actualisation that promotes psychological and social functioning (Waterman, 1993). It is proposed that psychological well-being is associated with the realisation of one's true potential and forming a sense of meaning from life through such experiences (Huppert, 2009). Ryff's (1989) comprehensive model of psychological well-being conceptualises psychological well-being as encompassing six distinct factors. These dimensions include positive appraisals of oneself and one's life (self-acceptance), a sense of continued growth and development as a person (personal growth), a view that one's life has value and purpose (purpose in life), the value of quality relationships with others (positive relationships with others), the capacity to effectively manage one's life (environmental mastery), and a sense of self-determination (autonomy).

The second factor of eudaimonic well-being relates to social well-being. Keyes (1998, 2002) developed the model of social well-being influenced by the work of

Sociologists such as Durkheim and Marx. This proposed model is comprised of five facets that capture an individual's perception of their social and public life. This consists of social integration, social coherence, social actualisation, social contribution and social acceptance. Taking both, hedonic and the eudaimonic approaches into account, positive mental health can be defined as the presence of emotional, psychological, and social well-being (Keyes, 2002), in accordance with the definition of the WHO (2005).

### **1.1.5 Differentiating between mental health difficulties and positive mental health**

The growth of positive psychology has resulted in an emphasis being placed on improving positive aspects of mental health relating to positive emotions, self-acceptance, life satisfaction and social integration (Keyes, 2002); leading to suggestions that mental health is a multi-dimensional construct. The dual-factor model of mental health (Keyes, 2005) proposes that mental health is comprised of both the absence of psychopathology symptoms (i.e. depression, anxiety), as well as the presence of positive mental health (i.e. positive affect, life satisfaction). Accumulating evidence has supported suggestions of another dimension distinct to psychopathology existing (Huppert & Whittington, 2003; Kendler, Myers, Maes, & Keyes, 2011; Keyes, 2002, 2005). Increasing evidence has argued that positive mental health and psychopathology symptoms do not operate as exact opposites on a continuum, and are rather seen as separate components of mental health (Trompetter et al., 2017). Research has supported the existence of a two-factor model of positive mental health and psychopathology, proposing that such constructs are correlated to some degree, yet are distinct separate constructs (Lamers, Westerhof, Glas & Bohlmeijer, 2015).

More specifically, there is growing evidence that the absence of negative mental health symptoms is only moderately related to the presence of positive mental health,



(Lamers, Westerhof, Bohlmeijer, ten Klooster, & Keyes, 2011; Weich et al., 2011; Westerhof & Keyes, 2010). In fact, empirical evidence found that there was only a moderate association between mental health difficulties and positive mental health, with only 25% of the variance being shared between the two variables (Keyes, 2005). Additionally, increasing evidence has found that positive mental health may in fact act as a longitudinal protective mechanism against mental health difficulties at later moments in time (Grant et al. 2013; Keyes et al. 2010; Lamers et al. 2015; Wood & Joseph, 2010). Therefore, further understanding of psychological processes that are associated with improving positive mental health is as equally important as the large body of literature that currently exists focused on processes relating to reducing mental health difficulties (Trompetter et al., 2017).

#### **1.1.6 Aim of the current review**

Previous research has predominantly explored how self-compassion reduces mental health difficulties such as depression (e.g., Raes, 2010) and anxiety (e.g., Arimitsu & Hofmann, 2015). This has been further demonstrated by MacBeth and Gumley's (2012) meta-analysis, which identified that higher levels of self-compassion were associated with lower levels of psychopathology (i.e., depression and anxiety). However, the concept of mental health has evolved, with positive mental health being identified as another dimension of mental health, linked to greater mental health (Keyes et al. 2012; Lamers, Westerhof, Glas & Bohlmeijer, 2015). Recent emerging literature has suggested that self-compassion may be an underlying psychological process linked to increased well-being (Neff, 2007). With preliminary evidence indicating that self-compassion is associated with increased well-being (Neff, 2007), a preliminary meta-analysis by Zessin, Dickhauser and Garbade (2015) concluded that there is a need for future research to explore the nature of

the relationship between self-compassion and positive mental health. Therefore, the current review aims to explore these complex phenomena.

The current review's main research question was to determine if self-compassion was associated with increased levels of positive mental health. More specifically, the present review aimed to ascertain the nature of the relationship between self-compassion and distinctive aspects of positive mental health relating to social, emotional and psychological well-being.

## **1.2 Method**

### **1.2.1 Search strategy**

A systematic search of the literature was conducted on 15th January 2019. The search strategy implemented complied with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Moher, Liberati, Tetzlaff, & Altman, 2009) format. As such, search terms were generated through a scoping search to determine the key-terms used within the literature as suggested by Booth, Sutton, & Papaioannou (2016). Keywords were selected based on identifying terms that were prevalently used within the literature in describing the concepts of self-compassion and positive mental health. Existing systematic reviews were also assessed to identify specific search terms that were previously employed. The search terms selected were informed by previous reviews conducted by Inwood and Ferrari (2018) and Zessin et al. (2015) that investigated the relationship between self-compassion and well-being within similar research areas. Following this, search terms of self-compassion and positive mental health were selected to identify all relevant research relating to these constructs. The following terms were used: “self-compassion\*” OR “self compassion\*” AND “positive mental health” OR “positive mental-health” OR “psychological well-being” OR “psychological wellbeing”

OR “wellbeing” “well-being” OR “eudaimonia” OR “happiness” OR “life satisfaction” OR “life meaning” OR “positive emotions” OR “positive affect”. Such searches were inputted into the following databases due to their databases covering a wide range of journals relevant to the current review: PsycINFO, MedLine, CINAHL and Web of Science.

Additionally, due to potential publication biases (e.g. positive results publishing), the grey literature was searched using ETHOS for unpublished academic research (e.g., theses, dissertations) to determine if the nature of findings were similar to results published in peer-reviewed journals (Benzies, Hayden & Serrett, 2006). This was performed with the aim of presenting a more balanced view of the evidence-base and to reduce the risk of potential positive publication bias as suggested by Paez (2017). In accordance with this, non-English language based publications that were also reviewed, when translated to determine if similar findings were found in reducing publication bias. The findings from searching the grey literature and non-English language publications were compared to peer-reviewed articles included in the current review. As such, it was found that findings identified within the grey literature and non-English publications were similar to the results found in peer-reviewed articles, with little discrepancies between the results to suggest a significant difference in findings.

### **1.2.2 Eligibility Criteria**

In determining the eligibility of research studies, titles and abstracts were initially screened to identify relevant studies for inclusion in the current review. Following this, full manuscripts were then retrieved for the identified studies that were appraised as applicable to the research question and assessed for inclusion. Study selection was conducted by one reviewer. A second reviewer was consulted throughout this process. The inclusion and exclusion criteria outlined several key factors to ascertain the suitability of included

research studies. This included research being published within a peer reviewed journal between 2015-2019 to further extend Zessin et al.'s (2015) findings. Other inclusion criteria included being written in English, as well as studies implementing validated self-compassion and positive mental health measures. Ultimately, explicit analysis of the relationship between self-compassion and positive mental health was fundamental to inclusion. The inclusion and exclusion criteria is outlined in Table 1.

Table 1

*Inclusion and exclusion criteria*

Inclusion	Exclusion	Rationale
Published journal (i.e. peer reviewed journal)	Unpublished (e.g. dissertations)	Published studies have been subjected to a peer-review process. In contrast, the standard of unpublished studies have not, and it is therefore difficult to determine the standard of work.
Validated self-compassion measure	Absence of validated self-compassion measure	There are a variety of conceptualisations of self-compassion. It is important to implement a definition that is widely agreed within the research literature. Therefore, it is crucial to use a measure that demonstrates excellent psychometric properties in specifically measuring self-compassion.
Validated positive mental health measures	Absence of validated positive mental health measures	Within the literature, positive mental health is defined in different ways. Therefore, it is crucial to use validated measures that capture elements of positive mental health.
Explicit analysis of the relationship between self-compassion and positive mental health	Studies that measured these variables	The research question is to explore the relationship between self-compassion and positive mental health. Therefore, only studies that directly investigate this relationship were included



## **1.3 Results**

### **1.3.1 Study selection**

Due to the diversity of outcome measurements that were employed to measure a range of distinctive variables (i.e. positive affect, psychological well-being, life satisfaction, depressive symptoms) within the current review, a meta-analytic approach was considered to be inappropriate in analysing the data as recommended by Booth, Sutton & Papaioannou (2016). In line with this, Ioannidis, Patsopoulos and Rothstein (2008) suggest that combining data from multiple studies that use heterogeneous measurements is unsuitable for conducting a meta-analytic review. As such, this was found to be the case within the current review, based on studies measuring a range of different constructs that were distinct from each other (e.g., life satisfaction, depressive symptoms). The rationale to not implement a meta-analytic approach was further informed by a recent review conducted by Zessin et al. (2015) that explored the relationship between self-compassion and well-being. Within the review, it was identified that performing a statistically conclusive meta-analysis proved difficult due to the diverse range of measures that were implemented to measure well-being. As such, it was recommended that alternative methods may be more appropriate in summarising the data. Based on such information, it was therefore deemed appropriate to use a narrative synthesis approach to summarise the findings across all studies.

Searching the database using the key terms selected produced 821 results. Following the initial results, any duplicates identified were removed reducing the results to 689. Of the 689 studies that were screened, 451 were excluded due to measuring only mental health symptoms (e.g., anxiety, depression), with no report of measuring positive mental health features (i.e. life satisfaction, positive affect, psychological well-being). In accordance with this, a further 201 studies were excluded based on no measurement of

self-compassion, with such studies focusing on other forms of compassion (e.g. compassion directed towards others). Following this, 37 articles were selected to be included in the full-text analysis to determine their suitability against the inclusion/exclusion criteria outlined. Following this, 21 studies were excluded based on not implementing validated self-compassion ( $N = 2$ ) or positive mental health measures ( $N = 12$ ), as well no direct investigation into the relationship between such variables ( $N = 7$ ). This resulted in 16 studies being included within the full analysis. See *Figure 1* for the PRISMA diagram.



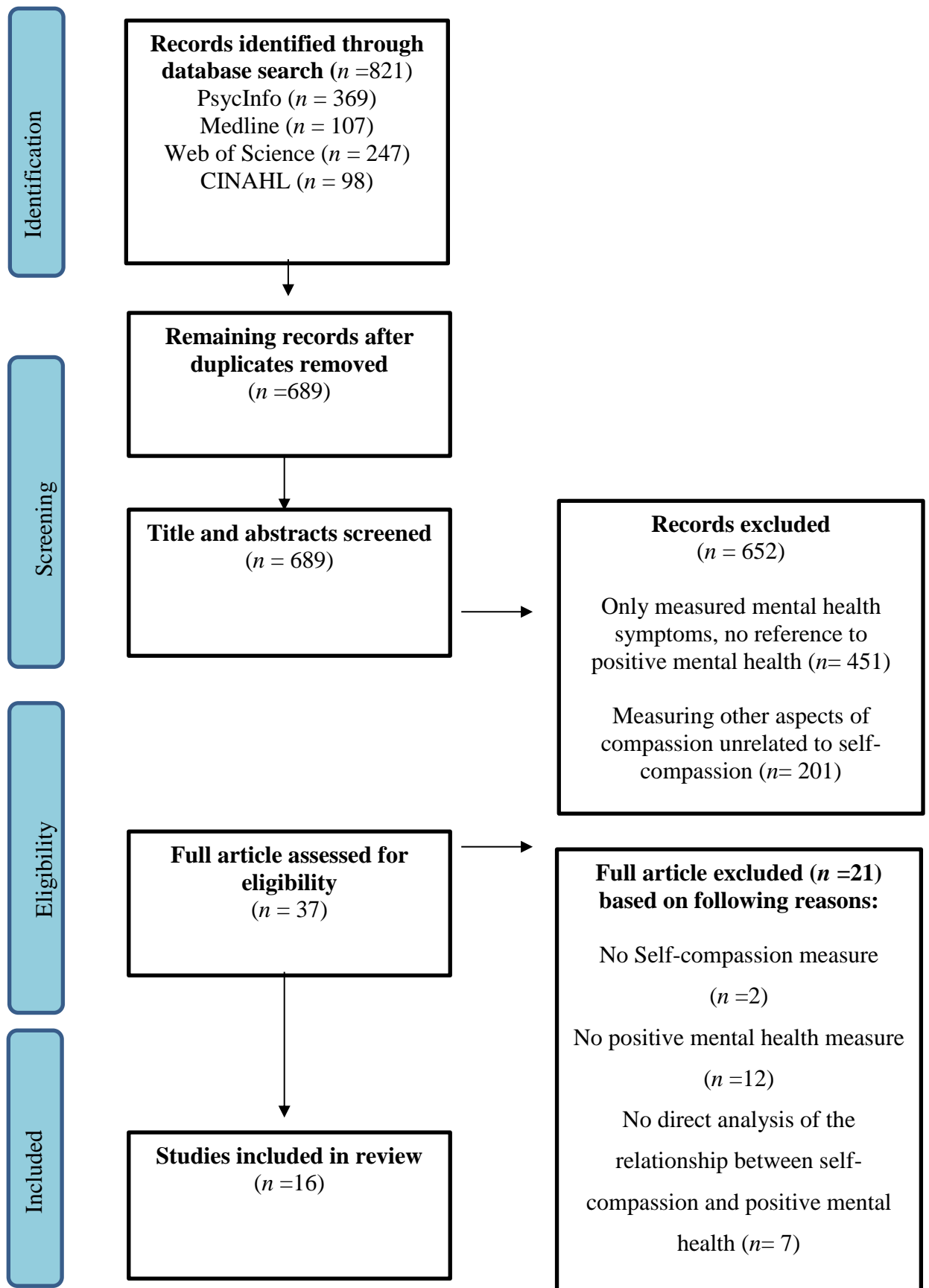


Figure 1. PRISMA flow diagram of systematic literature selection process

### 1.3.2. Methodological Quality Appraisal Tool

The methodological quality of the selected studies included in the current review was assessed using the Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields Protocol (QAC; Kmet, Lee & Cook, 2004). This quality check protocol is comprised of a 14-factor predefined criteria (see Appendix A) used to determine the standard of quantitative research conducted based on areas regarding the clarity of a defined research question, use of an appropriate study design, suitable sample recruitment (i.e., clearly defined eligibility criteria outlined). Other domains assessed included using an appropriate sample size for sufficient statistical power, results reported in sufficient detail relating to significant/ non-significant findings and valid conclusions being formed based on the results.

Each study was assigned a quality summary rating score between 0 and 1 (See Appendix B for scores). A higher score indicated that a study was appraised to have conducted their research to a higher methodological standard. The quality summary rating score was produced by dividing the total sum score by the total possible sum score (e.g.,  $\text{total sum score} / \text{possible total sum score} = \text{quality summary rating}$ ). The total sum score was calculated by totaling the ratings from each item. Once all scored, a total sum score was created ( $\text{Total sum} = (\text{number of "yes"} * 2) + (\text{number of "partials"} * 1)$ ). If an item was deemed not applicable, it was marked as 'NA' and not counted within the total sum score.

Following this, a total possible sum score was calculated by adding up the maximum score available on each item (e.g. 2) that was applicable to the design to produce the maximum potential score available. This varied depending on the number of items that were applicable to the study. For example, if all 14 items were applicable to a study, a maximum possible sum score of 28 was available. If an item was appraised as 'N/A', it was subsequently excluded from the total possible sum score and therefore reduced the

potential maximum score available. For example, if 11 items were applicable, the total possible score available would be 22. This score would then subsequently be divided by the total sum score to produce a quality summary rating score. For example, a study that scored a total sum score of 18 out of a total possible sum score of 22, would consequently be divided by 22, producing a quality rating of .82 (e.g. Summary score:  $18/22 = .82$ ).

Following the allocation of a quality rating score, each item was evaluated against predetermined four categorical cut-off points to determine the standard of research that was conducted. These ranged from strong ( $0.80 >$ ), good quality ( $0.70-0.79$ ) adequate quality ( $0.50-0.69$ ), or limited methodological quality (less than 0.50) (Kmet et al., 2004). To ensure consistency within ratings, a second reviewer independently evaluated 12% of the studies included (two studies) for inter-rater reliability. This showed an inter-rater reliability rating of .82. Such discrepancies in scores were discussed.

### **1.3.3 Data Extraction**

Study characteristics were extracted by one reviewer. Another reviewer oversaw the process and was regularly updated regarding the progress of this. Several characteristics and variables were coded within the current review. First, the publication characteristics relating to the year of publication and name of the authors were recorded. Following this, a range of sample characteristics were extracted. These included sample size, gender (proportion of women/ men in each sample), age of the participants (sample mean), sample type (clinical vs. non-clinical), and geographic region of the sample (e.g. North America, Europe, Asia). Following this, the measurement characteristics were recorded. This related to the type of self-compassion and positive mental health questionnaires/ measurements that were used.

### 1.3.4 Study Characteristics

Table 2. provides an overview of the 16 studies included within this review. All studies consisted of non-clinical participants, with most studies implementing a convenience sampling method through recruiting students from Universities. This consisted of seven studies involving university students as participants (Choo et al., 2019; Fong et al., 2016; Gunnell et al., 2017; Jeon et al., 2016; Phillips, 2018; Shin et al., 2016; Trompeter et al., 2017). Furthermore, nine studies recruited participants from the general population ranging from specific recruitment specifications to more flexible inclusive criteria. Five studies implemented specific recruitment specifications, including participants from a lesbian, gay and bisexual (LGB) community (Toplu-Demirtaş, Kemer, Pope, & Moe, 2018), adult men who had experienced child maltreatment (Tarber et al., 2016), female athletes (Ferguson et al., 2015), as well as females aged between 40-60 years old currently experiencing menopausal symptoms (Brown, Bryant, Brown, Bei & Judd, 2015). Additionally, another study specifically recruited women aged between 40-60 years-old in measuring attitudes towards aging (Brown, Bryant, Brown, Bei & Judd, 2016). A further four studies recruited adult participants from the general population with no specific inclusion criteria via doctor surgeries and community centres (López, Sanderman, Ranchor & Schroevers, 2018; Neff et al., 2018; Yakin, Gençöz, Steenbergen, & Arntz 2019; Yang, Zhang & Kou, 2016).

The total sample size across the 16 studies was 4080 participants, averaging at 255 participants per study ranging from 137 to 689 participants. The age of participants ranged between 18 and 64 years old ( $M= 33.34$ ,  $SD= 17.12$ ). Of the 4080 participants across the 16 studies, 82% were female (3346). Four studies were conducted with participants within the USA, four studies involved participants from Australia, two studies recruited participants from the Netherlands, two from South Korea, two from Turkey as well as one

study involving participants from Canada and another study involving participants from China.

All studies were quantitative and used self-report measures to investigate the associations between self-compassion and positive mental health. A cross-sectional design was implemented by all studies. In analysing the statistical data, all 16 studies conducted correlational analyses, with a further nine studies performing additional mediational analyses (Fong et al., 2016; Gunnell et al., 2017; Jeon et al., 2016; Phillips, 2018; Tarber et al., 2016; Toplu-Demirtaş et al., 2019; Trompeter et al., 2017; Yang et al., 2016; Yakin et al., 2019). Additionally, three studies also conducted regression analyses (Brown et al., 2015; Brown et al., 2016; Shin et al., 2018).

### **1.3.5 Measurements**

#### *1.3.5.1 Self-compassion*

All studies measured self-compassion using variations of the self-compassion scale (SCS; Neff, 2003). This involved 88% of the studies (14) using the full self-compassion scale (SCS; Neff, 2003). The SCS is a 26-item questionnaire measuring an individual's level of self-compassion based on interrelated bipolar constructs relating to self-kindness versus self-judgment, common humanity versus isolation, and mindfulness versus over-identification (Neff, 2003a). There are six subscales, comprising of three positive subscales (self-kindness, common humanity & mindfulness) and three negative measures (self-judgement, isolation & over-identification) of self-compassion. The SCS demonstrates excellent psychometric properties relating to internal reliability ( $\alpha = .92$ ) and test-retest reliability is reported at .93 (Neff, 2003a; Neff et al., 2007). Within, two studies, the Self-Compassion Scale- Short Form (SCS-SF; Raes et al., 2011) was implemented. This is a 12-item self-report questionnaire to assess self-compassion based on Neff's original 26-item self-compassion questionnaire (Neff 2003b). Psychometric properties were also good

for the SCS-SF, with internal reliability reported at .87 and test-retest reliability of .85 (Raes et al., 2011).

#### *1.3.5.2 Positive mental health*

In measuring positive mental health, a number of different validated self-report measurements were used to measure different domains of positive mental health. It has been agreed that a consensus around measuring positive mental health as a construct is difficult to establish due to the broadness of such a concept (Manwell et al., 2015; Valliant, 2012). Within eight studies, the satisfaction with life scale (SLS; Diener, Emmons., Larsen & Griffin, 1985) was used, demonstrating good levels of internal reliability, with scores ranging from .83 to .92 across the eight studies. Additionally, six studies measuring positive and negative affect used the positive and negative affect scale (PANAS; Watson, Clark & Tellegen, 1988). Internal consistency scores varied between .87 and .92 across the five studies. Whilst two studies used the Mental Health Continuum Short Form (MHC-SF; Keyes, 2002, 2009) to measure social, emotional and psychological well-being. Internal consistency scores varied between .90 and .93. Three other studies specifically measuring psychological well-being relating to autonomy, personal growth, environmental mastery, positive relatedness, purposes in life and self-acceptance used the Psychological Well-Being (PWB; Ryff & Keyes, 1995). Internal consistency scores within the three studies using the PWB ranged between .88 and .92. Two studies measured psychological well-being using the Warwick–Edinburgh mental well-being scale, with internal consistency scores .95 within both studies (WEMWBS; Tenant et al., 2007).

#### **1.3.6 Methodological considerations**

The studies selected ranged in the quality of standards based on the Standard quality assessment criteria (Kmet, Lee & Cook, 2004). Scores ranged between .65 and .95, with

the maximum score being 1 (See Appendix B). Most notable methodological weaknesses related to a lack of information about power calculations in justifying sample sizes to determine the necessary power required to detect a significant effect (Cohen, 1992), with only two studies reporting power calculations (Fong et al., 2016; Toplu-Demirtaş et al., 2018). Whilst, eight studies (50%) implemented a convenience sampling method using a student population. In addition, there was an absence of information relating to demographic information in four studies (25%) that limited the understanding of the sample characteristics involved in the study. Most studies did not demonstrate consideration of potential covariate variables and the potential impact on internal validity. For example, research has consistently shown that males tend to possess higher levels of self-compassion scores compared to females (Yarnell et al., 2015), however this was rarely controlled for within analysis. Additionally, three studies (Choo et al., 2019; Jeon et al., 2016; Shin et al., 2018) used translations of the SCS (Neff, 2003), although how closely the translated versions corresponded with the original SCS was not described.

Table 2

*Summary of findings*

<b>Study</b>	<b>Country of Study</b>	<b>Aim</b>	<b>Participants</b>	<b>Research design</b>	<b>Measures used</b>	<b>Summary of Results</b>	<b>Quality, strengths &amp; weaknesses</b>
Brown, L., Bryant, C., Brown, V., Bei, B., & Judd, F. (2015)	Australia	To explore if self-compassion is a predictor of emotional and psychological well-being in women experiencing menopausal symptoms relating to hot flush interference with daily living.	206 women aged between 40-60 years old.	Cross-Sectional Design	SCS, WEMWBS, CESD-D, PANAS, SLS, MRQ	<p>Self-compassion was positively associated with higher levels of life satisfaction and psychological well-being for women experiencing menopausal symptoms</p> <p>Self-compassion was identified as a stronger predictor of life satisfaction and psychological well-being than beliefs about menopausal factors.</p>	<p><b>Quality:</b> Strong</p> <ul style="list-style-type: none"> <li>• In depth assessment of positive mental health through diverse validated measurements of different domains of positive mental health</li> <li>• Statistical analysis clearly explained, with balanced results reported</li> <li>• Good control of demographic variables</li> <li>• No longitudinal design to explore if self-compassion changes as menopausal symptoms intensify</li> </ul>



Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Brown, L., Bryant, C., Brown, V., Bei, B., & Judd, F. (2016)	Australia	To explore if self-compassion was both a direct predictor of psychological well-being, as well as an indirect predictor of well-being through its influence on attitudes to ageing within a sample of middle-age women.	517 female participants aged between 40-60 year olds	Cross-sectional	SCS, WEMWBS, CES-D, AAQ, SF-12	Both positive and negative factors of self-compassion were found to significantly predict positive mental health  Self-compassion had a significant indirect effect on positive mental health through promoting more positive attitudes towards ageing	<b>Quality:</b> Strong  <ul style="list-style-type: none"> <li>• Use of both positive and negative subscales of SCS improves understanding of unique contributions to positive mental health</li> <li>• Clear discussion around the clinical implications</li> <li>• Female only sample limits generalisability to men</li> <li>• No discussion of power analysis</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Choo, P. Y., & Marszalek, J. M. (2019)	USA	To explore the relationship between, self-compassion, self-reliance and well-being.	208 students from a university in USA	Cross-Sectional Design	SCS, PWB	<p>A significant positive association was found between self-compassion and higher levels of psychological well-being.</p> <p>Self-compassion (specifically, self-kindness and mindfulness) were found to mediate the relationship between self-reliance and psychological well-being</p>	<p><b>Quality:</b> Strong</p> <ul style="list-style-type: none"> <li>• Value of investigating contributions of different dimensions of self-compassion in relation to psychological well-being</li> <li>• Clear rationale explained for the study</li> <li>• Conclusions in line with results</li> <li>• Limited measurement by only measuring psychological well-being domain of positive mental health, limits investigations into how self-compassion relates to other aspects of well-being</li> <li>• Student sample limits generalisability</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Ferguson, L. J., Kowalski, K. C., Mack, D. E., & Sabiston, C. M. (2015).	USA	<p>To examine the relationship between self-compassion and psychological well-being in female athletes in response to emotionally difficult sport scenarios</p> <p>To explore the relationship between fear of self-compassion and psychological well-being</p>	137 young female university athletes	Cross-Sectional Design	SCS, PWB, FOC-S	<p>Self-compassion was positively associated with psychological wellbeing, namely self-acceptance, personal growth, purpose in life and autonomy</p> <p>Fear of self-compassion was negatively associated with all six facets of psychological well-being</p>	<p><b>Quality:</b> Good</p> <ul style="list-style-type: none"> <li>• Good exploration of relationship between self-compassion and individual facets of psychological well-being</li> <li>• Use of hypothetically difficult scenarios may not elicit the same effect as real events experienced</li> <li>• No report of power analysis for mediation analysis</li> <li>• No control of covariates (i.e. age, social class)</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Fong, M., & Loi, N. M. (2016).	Australia	To examine the associations between self-compassion, well-being, and distress within students. Specifically, the mediating role of self-compassion in the relationship between stress and well-being was explored.	306 students aged between 18-59 years old.	Cross-sectional Design	SCS, SLS, FS, PANAS, PSS. MBI-SS & CESD-R	<p>A significant positive association was found between self-compassion and higher levels of life satisfaction and positive affect</p> <p>Self-compassion significantly mediated the relationship between distress (i.e. negative affect, depression symptoms) and well-being (e.g. satisfaction with life, positive affect).</p>	<p><b>Quality:</b> Strong</p> <ul style="list-style-type: none"> <li>• Clear rationale described for study</li> <li>• Wide range of validated measures used to capture diverse elements of positive mental health</li> <li>• Controlled for social desirability effects</li> <li>• Power analysis conducted indicating sufficient statistical power</li> <li>• Use of student sample limits generalisability</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Gunnell, K. E., Mosewich, A. D., McEwen, C. E., Eklund, R. C., & Crocker, P. R. (2017).	Canada	To investigate if self-compassion was indirectly related to increased well-being through increased psychological need satisfaction during the first year of university.	189 University Students	Cross-sectional	SCS, SVS, PANAS, BPNSS	<p>Positive self-compassion subscales (self-kindness, common humanity and mindfulness) were all positively associated with positive affect and negatively associated with negative affect</p> <p>Psychological need satisfaction was identified as mediating the relationship between self-compassion and positive affect.</p>	<p><b>Quality:</b> Strong</p> <ul style="list-style-type: none"> <li>• Good measurement of different domains of positive mental health</li> <li>• Good analysis of unique contributions of SCS subscales</li> <li>• Clearly defined theoretical rationale for study relating to the role of self-compassion in difficult transition points</li> <li>• Conclusions clearly in line with results</li> <li>• University sample limits generalisability of findings</li> <li>• No reporting of power analysis for conducting mediational analysis</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Jeon, H., Lee, K., & Kwon, S. (2016)	South Korea	To explore the relationship between, self-compassion, social support and subjective wellbeing in university athletes.	333 University student athletes	Cross-Sectional Design	SCS, SLS, KEES, SSS	<p>Self-compassion was positively correlated with life satisfaction</p> <p>Self-compassion was found to partially mediate the relationship between social support and life satisfaction</p>	<p><b>Quality:</b> Adequate</p> <ul style="list-style-type: none"> <li>• No analysis of unique contributions of six factors of self-compassion in association with life satisfaction</li> <li>• Conclusions limited relating to subjective well-being as only life satisfaction was measured. Positive affect was discussed, although this was not measured. Findings can only be connected to life satisfaction and not subjective well-being overall</li> <li>• Limited discussion around clinical implications of findings</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
López, A., Sanderman, R., Ranchor, A. V., & Schroevers, M. J. (2018).	Netherlands	To explore how compassion for others and self-compassion are associated with psychological well-being (i.e., depressive symptoms, negative affect, and positive affect).	328 adults recruited from the general population	Cross-Sectional Design	SCS, PANAS, CES-D	Self-compassion was positively associated with positive affect and negatively associated with negative affect and depressive symptoms	<p><b>Quality:</b> Adequate</p> <ul style="list-style-type: none"> <li>• Aimed to measure psychological well-being, however, only positive and negative affect were measured. This does not correspond with evidenced definitions of psychological well-being (Ryff, 1989; (i.e. autonomy, self-acceptance, growth)</li> <li>• Use of total SCS score limits conclusions. Unclear if higher psychological well-being is associated with higher compassionate or low uncompassionate behaviours</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Neff, K. D., Long, P., Knox, M. C., Davidson, O., Kuchar, A., Costigan, A. & Breines, J. G. (2018).	USA	To investigate if all six components of self-compassion are associated with well-being in a variety of domains to determine if both make a significant contribution to outcomes.	188 non-clinical adult participants	Cross-sectional design	SCS, SLS, PANAS	Self-kindness, common humanity and mindfulness were all significantly associated with emotional well-being relating to life satisfaction and positive affect	<p><b>Quality:</b> Good</p> <ul style="list-style-type: none"> <li>• Good component analysis of relationship between subscales of SCS and life satisfaction and positive affect</li> <li>• Use of general population enhances external validity</li> <li>• Good discussion of clinical implications</li> <li>• No control for demographic variables in general population</li> <li>• Focuses only on emotional well-being and no other aspects of positive mental health</li> </ul>



Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Phillips, W. J. (2018).	Australia	This study aimed to ascertain whether balanced time perspective, optimism, and savouring-anticipating mediated the relationship between self-compassion and life satisfaction. More specifically, it was investigated if self-compassion promoted a positive future-outlook through experiencing increased pleasure in anticipating future positive events (savouring-anticipating), as well as less negative emphasis being placed upon past events (balanced time perspective) and ruminating on such events	157 University Students	Cross-Sectional Design	SCS, SLS, DASS21, LOT-R	<p>Self-compassion was shown to be positively correlated with life satisfaction</p> <p>The relationship between self-compassion and life satisfaction was significantly mediated by well-balanced time perspective, savouring-anticipating</p> <p>Optimism was not found to mediate the relationship between self-compassion and life satisfaction</p>	<p><b>Quality:</b> Adequate</p> <ul style="list-style-type: none"> <li>• Unclear rationale for hypotheses</li> <li>• No power analysis for mediational analysis</li> <li>• Limited information about participant demographics</li> <li>• Limited generalisability of findings due to sample consisting only of students</li> <li>• Limited information about statistical analysis and how such conclusions were drawn</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Shin, N. A., & Lim, Y-J. (2018)	South Korea	To investigate associations between the six components of self-compassion defined by Neff (2003) relating to three dimensions of positive mental health (emotional, social and psychological well-being).	689 college participants	Cross-Sectional Design	SCS, MHC-SF	Specific components of self-compassion such as self-kindness positively predicted social, emotional and psychological Well-being. Common Humanity was found to significantly and positively predict Social Well-being.	<p><b>Quality:</b> Strong</p> <ul style="list-style-type: none"> <li>• In-depth investigation of unique contributions of all facets of self-compassion</li> <li>• Large sample size increasing statistical power</li> <li>• Clear rationale for study</li> <li>• Study clearly described, aiding easy replication</li> <li>• Limited generalisability of findings due to sample consisting only of students</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Tarber, D. N., Cohn, T. J., Casazza, S., Hastings, S. L., & Steele, J. (2016).	USA	To explore the mediating role of self-compassion in the relationship between psychological distress and psychological well-being within a sample of male individuals who had experienced child maltreatment	182 male participants who had experienced child maltreatment	Cross-sectional design	SCS-SF, PWB, TSC	<p>Self-compassion was positively associated with psychological well-being</p> <p>Self-compassion partially mediated the relationship between psychological distress and psychological well-being</p>	<p><b>Quality:</b> Strong</p> <ul style="list-style-type: none"> <li>• Use of SCS-SF limits investigations of specific components of self-compassion with psychological well-being</li> <li>• No discussion around ethics of not offering psychological support for individuals who had experienced child maltreatment</li> <li>• Important connections made to clinical implications of findings</li> <li>• Statistical analysis clearly described</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Toplu-Demirtaş, E., Kemer, G., Pope, A. L., & Moe, J. L. (2018).	Turkey	To explore the association between social support, self-compassion and subjective well-being within a sample of LGB individuals	291 lesbian, gay and bisexual (LGB) individuals	Cross-sectional design	SCS, PANAS, SLS	<p>Self-compassion was positively associated with positive affect and life satisfaction</p> <p>Self-compassion was found to mediate the relationship between social support and subjective well-being (i.e. life satisfaction and positive affect)</p>	<p><b>Quality:</b> Strong</p> <ul style="list-style-type: none"> <li>• Use of only positive subscale of SCS promotes clear conclusions about relationship between self-compassion aspects (i.e. self-kindness, mindfulness) and positive mental health</li> <li>• Power analysis reported.</li> <li>• Clear description of statistical analysis</li> <li>• Suitable measures used in line with definition of subjective well-being</li> <li>• No control for demographic variables in general population</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Trompetter, H. R., de Kleine, E., & Bohlmeijer, E. T. (2017).	Netherlands	To investigate if self-compassion mediated the relationship between psychopathology and positive mental health	349 students from a university in Holland.	Cross-Sectional Design	SCS-SF, MHC-SF, HADS,	<p>Self-compassion was positively correlated with social, emotional and psychological well-being</p> <p>Findings indicated that self-compassion mediated the relationship between positive mental health and psychopathology. This found that self-compassion buffered the effects of psychopathology on positive mental health</p>	<p><b>Quality:</b> Strong</p> <ul style="list-style-type: none"> <li>• Use of strong validated measure of positive mental health</li> <li>• Important clinical implications discussed regarding clinical interventions</li> <li>• Use of SCS-SF measurement limits investigations of unique contributions of subscales of self-compassion</li> <li>• Generalisability limited by sample consisting of only university students</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Yang, Y., Zhang, M., & Kou, Y. (2016).	China	Exploring the association between self-compassion, hope and life satisfaction.	335 adult community sample	Cross-Sectional Design	SCS, SLS, SHS	<p>Self-compassion was positively associated with life satisfaction, as well as self-compassion being positively associated with hope.</p> <p>Hope fully mediated the positive relationship between self-compassion and life satisfaction.</p>	<p><b>Quality:</b> Good</p> <ul style="list-style-type: none"> <li>• Strong rationale outlined for the study</li> <li>• Good statistical control of demographic variables</li> <li>• Use of total SCS score limits exploration of unique contribution of individual factors to life satisfaction</li> <li>• Psychometric properties of self-report measures stated as ‘good’, however exact statistics not reported.</li> </ul>

Study	Country of Study	Aim	Participants	Research design	Measures used	Summary of Results	Quality, strengths & weaknesses
Yakın, D., Gençöz, T., Steenbergen, L., & Arntz, A. (2019)	Turkey	To explore the mediating effects of self-compassion in the relationship between early maladaptive schemas and life satisfaction	296 Adults non-clinical population	Cross-sectional design	SCS, SLS	<p>Self-compassion was positively associated with life satisfaction.</p> <p>Self-compassion was found to significantly mediate the relationship between early maladaptive schemas and life satisfaction</p>	<p><b>Quality:</b> Good</p> <ul style="list-style-type: none"> <li>• Good control of covariates (i.e. other schemas)</li> <li>• Clear consideration of weaknesses of using total SCS score, instead only using positive subscale of SCS</li> <li>• Unclear definition of ‘psychological healthiness’</li> <li>• No measurement of positive affect despite discussing this in hypotheses</li> </ul>

*Note.* SCS= Self-Compassion Scale, WEMWBS= Warwick–Edinburgh Mental Well-being Scale, CES-D= Centre for Epidemiological Studies Depression Scale, PANAS= Positive and Negative Affect Scale, SLS= Satisfaction with Life Scale MRQ= The Menopause Representation Questionnaire, AAQ= Attitudes to Ageing Questionnaire, SF-12= Short Form Health Survey 12, PWB= Psychological Well-Being scale, FOCS-S= The Fear of Compassion Scale for Self, FS= Flourishing Scale, PSS= Perceived Stress Scale, MBI-SS= The Maslach Burnout Inventory—Student Survey, CESD-R = The Center for Epidemiological Studies Depression Scale- Revised, SVS= Subjective Vitality Scale, BPNSS= The Basic Psychological Need Satisfaction Scale, SSS= Social Support Scale, DASS21= Depression, Anxiety and Stress Scale- 21, LOT-R= The Life Orientation Test-Revised, MHC-SF= Mental Health Continuum- Short Form, Self-Compassion Scale, SCS-SF, TSC= Trauma Symptom Checklist, SCS-SF= Self-Compassion Scale Short-Form, HADS= The Hospital Anxiety Depression Scale, SHS= State Hope Scale



### **1.3.7 Key Findings**

Within this section, the key findings identified from the 16 studies selected will be discussed relating to the multiple dimensions of positive mental health. The findings will be divided into subsections outlining the results involving university students, as well as the general population. This will be followed by an overall summary section.

#### *1.3.7.1 Self-compassion and social, emotional and psychological-wellbeing*

Seven studies examined the relationship between self-compassion and positive mental health relating to social, emotional and psychological well-being. This consisted of four studies (Ferguson et al., 2015; Trompetter, de Kleine & Bohlmeijer's, 2017; Shin et al., 2018, & Choo et al., 2019) involving university students as their sample, whilst three studies (Brown et al., 2015; Brown et al., 2016; Tarber et al., 2016) recruited participants from the general population. Of the seven studies, three studies specifically focused on measuring the relationship between psychological well-being and self-compassion within a sample of females experiencing menopausal symptoms (Brown et al., 2015), female athletes (Ferguson et al., 2015) and a large community sample of middle aged women (Brown et al., 2016).

#### *1.3.7.2 Self-compassion and social, emotional and psychological well-being in student population*

Across the four studies consisting of university students, a significant positive association was consistently found between self-compassion and positive mental health (Ferguson et al., 2015; Trompetter, de Kleine & Bohlmeijer's, 2017; Shin et al., 2018, & Choo et al., 2019). Two studies (Trompetter et al., 2017; Ferguson et al., 2015) measured self-compassion as an overall construct using the total SCS in relation to social, emotional

and psychological well-being. In line with this, Trompetter et al. (2017) identified a strong positive association between self-compassion and emotional, social and psychological well-being. Additionally, within the same study, self-compassion was also found to mediate the relationship between psychopathology and positive mental health.

Specifically, self-compassion was found to weaken the relationship between psychopathology and positive mental health, suggesting that self-compassion may protect against the effects of psychological distress, leading to higher levels of positive mental health (Trompetter et al., 2017)

Similarly, within another study investigating the relationship between self-compassion and psychological well-being involving female student athletes, self-compassion was positively associated with psychological well-being (Ferguson et al., 2015). It was found that self-compassion positively correlated with four of six factors outlined by Ryff's (1989) psychological well-being conceptualisation. Specifically, higher levels of self-compassion were positively related to higher levels of self-acceptance, personal growth, purpose in life and autonomy. Within the same study, a significant negative association was also found across all six domains of psychological well-being for individuals who reported a high resistance towards being self-compassionate and expressed a fear of relating to oneself with self-compassion. This highlights the role that self-compassion plays in enhancing psychological well-being through promoting a sense of meaning and facilitating self-development, with individuals who perceive expressing compassion towards self as aversive and frightening becoming more vulnerable to lower levels of psychological well-being.

Two studies (Choo et al., 2019; Shin et al., 2018) specifically investigated the relationship between distinctive features of self-compassion (i.e., self-kindness, common humanity & mindfulness) and social, emotional psychological well-being. Findings from regression analysis indicated that self-kindness significantly predicted social, emotional and psychological well-being, whilst common humanity significantly predict social well-

being (Shin et al., 2018). Similarly, Choo et al. (2019) found that self-kindness, common humanity and mindfulness all positively correlated with social, emotional and psychological well-being. Overall, such findings suggest that in the student population, higher levels of self-compassion, in particular self-kindness, were associated with increased levels of social, emotional and psychological well-being.

### *1.3.7.3 Self-compassion and social, emotional and psychological well-being in the general population*

The relationship between self-compassion and psychological well-being was explored by three studies involving general population samples (Brown et al., 2015; Brown et al., 2016; Tarber et al., 2016). Across, the three studies, self-compassion was consistently found to predict psychological well-being. Within a sample of adults who had previously experienced child maltreatment (Tarber et al., 2016), self-compassion was positively associated with psychological well-being. Within the same study, mediational analysis showed that self-compassion significantly mediated the relationship between psychological distress following child maltreatment and psychological well-being. Such findings suggest that for individuals who have experienced child maltreatment, those who are more self-compassionate are likely to experience increased levels of psychological well-being compared to those lower in self-compassion. This may occur through self-compassionate individuals not over-identifying with their emotional suffering, as well as holding it in awareness with acceptance, kindness and understanding that promotes psychological well-being through continuing to develop oneself and create meaning. This is line with theoretical suggestions of self-compassion acting as a buffer against emotional distress (Diedrich, Grant, Hofmann, Hiller & Berking, 2014).

Within a study involving 40-60-year-old women experiencing menopausal symptoms, self-compassion was found to be positively correlated with psychological well-

being (Brown et al., 2015). More specifically, self-compassion was found to be the strongest predictor of psychological well-being, accounting for more unique variance than other factors such as menopausal beliefs about controlling menopausal symptoms, beliefs about the perceived symptoms of menopause and the consequence of menopausal symptoms. Such findings indicate that self-compassion may operate as a protective factor (Neff, 2003) against the effects related to menopausal changes and how they are perceived. This relates to self-compassion offering a context to experience difficult changes within a warm and non-judgmental manner that enables a deeper level of acceptance to the hardship that may occur during menopause, while continuing to work towards self-development and meaning that enhances psychological well-being (Diedrich et al. 2014).

Both positive (self-kindness, common humanity and mindfulness) and negative facets of self-compassion (self-judgement, isolation and over-identification) were found to strongly predict psychological well-being within a community sample of middle-age women (Brown et al., 2016). This posits that both, high levels of positive dimensions of self-compassion, as well as reduced levels of negative facets are influential in promoting psychological well-being. Specifically, this suggests that not engaging in uncompassionate behaviours exhibited through self-criticism, along with ruminating about one's distress and seeing one's failures in isolation are just as instrumental as positive features of self-compassion in the development of psychological well-being.

#### *1.3.7.4 Summary of self-compassion and social, emotional and psychological well-being findings*

Overall, the aforementioned results suggest that across both student and general population samples, increased levels of self-compassion were associated with higher levels of social, emotional and psychological well-being. In particular, specific characteristics of self-compassion such as self-kindness were found to promote increased levels of social,

emotional and psychological well-being (Choo et al., 2019; Shin et al., 2018). Therefore, the findings posit that through relating to oneself with warmth and kindness in moments of adversity, domains of positive mental health within social, emotional and psychological well-being are likely to be enhanced. Additionally, such findings postulate that self-compassionate characteristics (warm, self-kindness, non-judgement) present valuable benefits for psychological well-being for individuals across different stages of their life (i.e. students athletes, menopause) in relation to self-acceptance, personal growth, environmental mastery, purpose in life and autonomy. This corresponds with previous suggestions that higher levels of self-compassion promote acceptance of emotional distress and disappointment associated with challenging life events more effectively than individuals low in self-compassion that aids psychological well-being by appraising aspects of the self more positively and appreciating features of the self despite such failures (Neff, 2007). Therefore, through reduced levels of rumination on previous failures, individuals can continue to work toward self-development and obtaining meaning from life through a continued pursuit of valued goals (Leary, Tate, Adams, Allen, & Hancock, 2007; Neff 2003).

#### *1.3.7.5 Self-compassion and life satisfaction*

Positive mental health was largely measured by life satisfaction in eight studies. Life satisfaction is defined as cognitive evaluations of an individual's overall level of satisfaction with their life (Diener et al., 1985). Across the eight studies, three studies involved a student sample (Fong et al., 2016, Jeon, Lee & Kwon, 2016; Phillips, 2018) and five studies recruited from the general population.

#### *1.3.7.6 Self-compassion and life satisfaction in student population*

Across the three studies exploring the relationship between self-compassion and life satisfaction involving university student participants, a positive relationship between self-compassion and life satisfaction was consistently found (Fong et al., 2016; Jeon, Lee & Kwon, 2016; Phillips, 2018). This suggests that higher levels of self-compassion are associated with increased levels of life satisfaction. Within Jeon et al.'s (2016) study, the value of self-compassion for student athletes was illustrated, with all three positive facets of self-compassion (self-kindness, common humanity & mindfulness) being positively correlated with life satisfaction. Therefore, within a competitive context, where there is an increased likelihood of experiencing disappointment and shame due to defeat, individuals who are more compassionate may be more able to respond to failures with kindness and understanding, rather than engaging in self-criticism towards their perceived inadequacies that promote satisfaction with life (Neff, 2003).

#### *1.3.7.7 Self-compassion and life satisfaction in the general population*

Across five studies, self-compassion was consistently found to positively correlate with life satisfaction. This was demonstrated within samples consisting of participants recruited from the community (Neff et al., 2018; Yakin et al., 2019; Yang & Zang, 2016), as well as specific populations involving participants of lesbian, gay and bisexual (LGB) orientation (Toplu-Demirtaş et al., 2018) and women experiencing menopausal symptoms (Brown et al., 2015). One study specifically explored the underlying mechanisms explaining the relationship between self-compassion and life satisfaction within a large community sample (Yang et al., 2016). Results indicated that self-compassion was found to indirectly effect life satisfaction via the mediating effect of hope (Yang et al., 2016). More specifically, mediational analysis indicated that self-compassion promoted increased levels of hope leading to higher levels of life-satisfaction. As such, self-compassion may

create a sense of optimism that enables individuals to continue pursuing their desired goals, even in challenging situations that may lead to increased levels of life satisfaction (Neff et al., 2005)

#### *1.3.7.8 Summary of self-compassion and life satisfaction findings*

In line with empirical evidence (Neely et al., 2009), the findings across the eight consistently showed a positive association between self-compassion and life satisfaction. This was demonstrated across different populations such as within university students, LGB individuals, females experiencing menopausal symptoms and individuals from the general population. This aligns with theoretical suggestions that higher levels of self-compassion play an influential role in increased life satisfaction through self-compassionate individuals holding a kind and non-judgmental approach to oneself during times of failure, which leads to an acceptance of negative experiences and continued optimism within working towards important life goals (Allen and Leary, 2010; Diedrich et al. 2014; Neff, 2009; Leary et al. 2007). Furthermore, self-compassionate individuals are less inclined to ruminate on past failures and over identify with negative evaluations (Raes, 2010) and cope more adaptively to events involving disappointment (Neff et al., 2005).

#### *1.3.7.9 Self-compassion and positive and negative affect*

Six studies investigated the relationship between self-compassion and positive and negative affect. This consisted of two studies using a student sample (Fong et al., 2016; Gunnell et al., 2017) and four studies recruiting participants from the general population (Brown et al., 2015; Lopez et al., 2018; Neff et al., 2018; Toplu-Demirtaş et al., 2018).

#### *1.3.7.10 Self-compassion and positive and negative affect in student population*

Both studies involving university students found a significant positive association between self-compassion and positive affect and negative association with negative affect (Fong et al., 2016 & Gunnell et al., 2017). Specifically, one study demonstrated a positive association between positive affect and specific factors of self-compassion such as self-kindness, common humanity and mindfulness (Gunnell et al., 2017). Within the same study, the underlying mechanisms that explained the relationship between self-compassion and positive affect were explored through mediational analysis. Indeed, findings showed that self-compassion was indirectly associated with positive affect via psychological needs satisfaction. Theoretical frameworks based on self-determination theory suggests that all humans have innate psychological needs, that when fulfilled lead to greater well-being (Deci & Ryan, 2000). These psychological needs are competence (i.e., the perception that one can complete personally challenging tasks), autonomy (i.e., the perception that one is in control of his/her behaviours and acting volitionally) and relatedness (i.e., the perception that one connects and belongs with important others; Deci & Ryan, 2000).

Results showed that self-compassion promoted increased psychological needs satisfaction, leading to increased levels of positive affect. This postulates that higher self-compassion can promote the fulfilment of core psychological needs that lead to increased well-being through positive affect. This aligns with research that self-compassion creates a sense of autonomy, through holding kindness towards the self, as well as not over-identifying with failures and continuing to pursue behaviours that provide a sense of enjoyment in pursuit of happiness (Neff & Dahmn, 2015). Additionally, self-compassion may aid increased perceived competence that leads to higher levels of positive affect, through seeing failures as part of human experience and not criticising oneself for perceived inadequacies, instead continuing to view oneself as competent through engaging in activities that are important (Neff, Hsieh, & Dejitterat, 2005).



#### *1.3.7.11 Self-compassion and positive affect in the general population*

Self-compassion was consistently found to positively correlate with positive affect and negatively correlate with negative affect across all four studies involving participants from the general population (Brown et al., 2015; Lopez et al., 2018; Neff et al., 2018; Toplu-Demirtaş et al., 2018). Three of these studies specifically investigated the relationship between positive affect and the positive components of self-compassion, namely self-kindness, common humanity and mindfulness (Brown et al., 2015; Lopez et al., 2018; Neff et al., 2018; Toplu-Demirtaş et al., 2018). With participants from the community, self-kindness, common humanity and mindfulness were positively correlated with positive affect and negatively associated with negative affect (Lopez et al., 2018; Neff et al., 2018). Similarly, such findings were also evident within an LGB sample, with self-kindness, common humanity and mindfulness all positively correlating with positive affect and negatively with negative affect (Toplu-Demirtaş et al., 2018). One study investigated self-compassion as an overall construct, as opposed to investigating specific facets of self-compassion, by using the total SCS score to explore the relationship between self-compassion and positive affect within a sample of females experiencing menopausal symptoms (Brown et al., 2015). Results indicated that self-compassion was positively associated with positive affect. Therefore, a consistent finding across the four studies involving participants from the general population was that higher levels of self-compassion were found to be associated with positive affect.

#### *1.3.7.12 Summary of self-compassion and positive and negative affect findings*

Across the six studies exploring the relationship between self-compassion and positive and negative affect, it was found that a positive relationship existed between self-

compassion and positive affect, as well as a negative association existing between self-compassion and negative affect, irrespective of the participant population. Therefore, findings suggest that self-compassion promotes positive affect through expressions of warmth and kindness towards the self during times of suffering, with such distress being responded to from a position of understanding (Neff, 2003). Additionally, findings corroborate research literature suggesting that self-compassion promotes increased experiences of positive affect through an acceptance of negative affect that leads to positive affect, through experiencing warmth in response to such feelings and refraining from continuous criticism towards the self that creates an emotional balance (Dundas et al., 2016).

## **1.4 Discussion**

### **1.4.1. Critical review of the findings**

The current review aimed to synthesise research findings exploring the relationship between self-compassion and positive mental health. Overall, 16 studies were included within the present review after meeting the inclusion criteria outlined earlier. Findings indicated that self-compassion was consistently associated with increased levels of positive mental health, suggesting that self-compassion may play a pivotal role in facilitating the development of positive mental health (Neff & Germer, 2013). Such findings are consistent with previous research proposing that self-compassion is associated with increased well-being (Neff, 2007).

The current review aimed to extend the findings of Zessin et al. (2015) by focusing on different dimensions of positive mental health as opposed to a holistic view of well-being. Overall, the findings from the current review were consistent with Zessin et al.'s (2015) review, and further extended evidence that self-compassion was positively associated with psychological well-being. Furthermore, the current review presents novel findings relating to how higher levels of self-compassion enhance other domains of positive mental health relating to social and emotional well-being.

Furthermore, self-compassion research has predominately focused on the association with mental health difficulties (Macbeth & Gumley, 2012). However, the current research focuses on a different dimension of mental health, in reference to positive well-being as an aspect of mental health that promotes resilience and resourcefulness (Keyes, 2002). Positive psychology research has focused on mechanisms that promote well-being, through creating a platform for resilience (Bluth & Blanton, 2015). In accordance with this, self-compassion has been suggested to operate as an adaptive emotional regulatory mechanism that promotes positive well-being in responding to

negative affect with understanding, warmth and acceptance (Berking & Whitley, 2014; Diedrich et al., 2014). The findings from the current review further support such theoretical suggestions as being applicable to positive mental health, thus demonstrating the importance of self-compassion as a resilience factor (Hofmann, Grossman & Hinton, 2011), as well as promoting well-being (Findlay-Jones, Kane & Rees, 2017).

### **1.4.2 Main findings**

Across the 16 studies included in the current review, such findings aligned with Keyes (2005) positive mental health conceptualisation, by consistently demonstrating the benefits relating to social well-being, emotional well-being and psychological well-being and levels of self-compassion.

#### *1.4.2.1 Self-compassion and emotional well-being*

Emotional well-being was captured through measuring the presence of positive affect and life satisfaction. This corresponds with conceptualisations of emotional well-being within the research literature relating to experiencing positive affect and life satisfaction (Diener et al., 2000; Keyes et al., 2007). Results showed that higher self-compassion was associated with greater levels of life satisfaction within eight studies, whilst self-compassion was also found to positively correlate with positive affect and negatively correlate with negative affect across six studies.

Such findings corroborate theoretical perspectives that self-compassion alleviates negative affect, through responding to such distress with warmth and acceptance, and therefore weakening the intensity of such experiences (Zessin et al., 2015). Therefore, self-compassion may not directly replace such negative feelings with positive affect, however, positive affect may be generated by embracing negative emotions (Neff & Dahmn, 2015). Furthermore, acceptance of negative emotions may lead to individuals being less likely to

engage in psychological processes such as emotional suppression and rumination, linked to reduced positive mental health (Neff, 2009; Neff & Dahmn, 2015). Thus, self-compassion may create a balance between positive and negative affect (Dundas et al., 2016).

Furthermore, the current findings may be understood within the framework of the tripartite model of affective regulation (Gilbert, 2009). Within the tripartite model of affective regulation, it is posited that self-compassion downregulates the threat system, linked to stimulating negative emotions such as anxiety, shame and anger (Gilbert, 2014). According to Gilbert (2009), this occurs through self-compassion activating the soothing system, linked to feelings of contentment and safeness that modulate the intensity of negative affect within the threat system through creating a sense of safeness (Gilbert, 2009). This is further supported by self-compassion being associated with low levels of anxiety, depression and stress (Breines et al., 2015; Macbeth & Gumley, 2012).

Additionally, generation of positive affiliative emotions such as contentment and safeness are theorised to increase positive affect through negative emotions being responded to with acceptance and validation, therefore reducing the intensity of such negative emotions (Leary et al., 2007) and therefore increasing well-being (Gilbert et al., 2008). As such, such results further corroborate findings linking self-compassion to increased emotional well-being (Engen & Singer, 2015).

In addition, the positive association found between self-compassion and life satisfaction is consistent with previous research identifying higher levels of self-compassion as being associated with increased levels of life satisfaction (Neely et al., 2009). Increased life satisfaction may also occur through self-compassion encouraging adaptive behavioural responses to setbacks (Neff, 2007) through continued goal pursuit (Neff, Hsieh, & Dejitterat, 2005), and increased feelings of mastery (Neff et al., 2005; Smeets, Nedd, Alberts & Peters, 2014) despite experiencing setbacks. This may be understood in how self-compassion promotes observing events involving failure from an objective viewpoint and not engaging in self-criticism, rather perceiving such events as

part of human experience (Leary et al., 2007). Therefore, self-compassion may promote increased life satisfaction through individuals continuing to appraise their life positively due to not over-identifying with negative events or emotional distress (Raes, 2010).

#### *1.4.2.2 Self-compassion and psychological well-being*

A positive correlational relationship was consistently found between self-compassion and psychological well-being across six studies involving both student and general population samples included in the present review. In accordance with Ryff's (1989) conceptualisation of psychological well-being, encapsulated in six dimensions linked to autonomy, environmental mastery, personal growth, positive relatedness, purpose in life, and self-acceptance, self-compassion was shown to enhance such domains of psychological well-being. Specifically, one study (Ferguson et al., 2015) found that self-compassion was positively associated with distinct features of psychological well-being relating to autonomy, purpose in life, self-acceptance and personal growth for female athletes.

These findings are in accordance with theoretical suggestions that self-compassion promotes proactive behaviours linked to enhancing well-being through adaptive coping skills (Neff, 2003, 2005) that improve psychological well-being through facilitating self-development. In line with this, self-compassion may facilitate self-growth and development through accepting responsibility for failures, however, not over-identifying and amplifying the significance of such past failures through excessive self-blame, instead taking personal initiative to make changes in one's life to continue developing and improving (Neff et al., 2007). As such, this may foster personal growth through encouraging engagement in behaviours that are beneficial to well-being, as well as rectifying harmful or unproductive patterns of behavior, rather than ruminating about such failures (Berry, Kowalski, Ferguson, & McHugh, 2010; Breines & Chen, 2012)

Furthermore, self-compassion may aid self-acceptance in directing positive appraisals towards the self through extending self-kindness and warmth, as well as reducing engagement in self-criticism towards perceived inadequacies that are instead appraised as part of common human experience leading to a sense of self-acceptance (Neff, 2007). Furthermore, self-compassion stimulates higher levels of intrinsic motivation, personal initiative mastery goals, and adaptive coping (Neely et al., 2009; Neff, Hsieh, & Dejitterat, 2005). Such qualities may therefore aid continued pursuit of meaningful goals and lead to appraising life in a positive manner and creating purpose in life, and working towards self-actualisation in line with psychological well-being (Yang et al., 2016).

#### *1.4.2.3 Self-compassion and social well-being*

A general pattern was found between higher self-compassion and social well-being. This related to self-compassion enhancing a sense of social integration and social acceptance (Keyes, 2002). Specifically, common humanity was found in one study to predict social well-being (Shin et al., 2018). This corresponds with theoretical perspectives regarding self-compassion, in particular, common humanity promoting individuals feeling connected to others through the shared experience of suffering and not appraising it as occurring in isolation to themselves. The findings align with Gilbert's (2005) suggestions that self-compassion promotes well-being through feeling connected to others.

#### **1.4.3 Clinical implications**

The findings from the current review present several important clinical implications. Firstly, the findings further extend the growing evidence-base of self-compassion and illustrate the positive association between self-compassion and positive mental health within a variety of domains (Zessin et al., 2015). Additionally, the current review

highlights specific underlying mechanisms that self-compassion promotes, as illustrated within different studies concerning fulfilling basic psychological need satisfaction linked to well-being (Gunnell et al., 2017), as well as instilling increased levels of hope (Yang et al., 2016). Moreover, self-compassion was consistently found to be associated with higher levels of positive mental health within a diverse range of sample populations. This included middle aged women experiencing menopausal symptoms (Brown et al., 2016), adult men who had experienced childhood maltreatment (Tarber et al., 2016), as well as first year university students transitioning to university (Gunnell et al., 2017). Such findings further corroborate the notion that self-compassion is beneficial in a range of experiences and across a diverse population group (Neff, 2007).

Furthermore, the concept of mental health has evolved, with increased emphasis being placed on the presence of well-being as an important indicator (Keyes, 2010). In fact, within the field of mental health, emphasis has been placed on psychological interventions both, reducing distress and promoting well-being (Slade, 2010). The findings from the present review suggest that psychological interventions which focus on cultivating self-compassion could enhance well-being. In line with this, compassion-focused therapy (CFT; Gilbert, 2009) is a psychological intervention that is embedded within the two-factor model of mental health (Keyes, 2005). A core aim of CFT is to cultivate compassion, through the ability to respond to emotional distress with sensitivity, along with a commitment to alleviate such suffering that promotes well-being (Gilbert, 2009). Previous research has already highlighted CFT is effective in reducing depression and anxiety symptoms (Gilbert & Procter, 2006). However, the role of CFT in promoting positive mental health has demonstrated early promising findings also. Preliminary evidence showed that within a randomised controlled trial (RCT) involving a large community sample, compassion-focused therapy (CFT) was found to be significantly effective in improving social, emotional and psychological well-being compared to the waitlist condition (Sommers-Spijkerman, Trompetter, Schreurs, M. Bohlmeijer, 2018).



These positive effects were found to be sustained at the three, six and twelve-month follow-up periods. Therefore, interventions implementing compassion-based approaches may have beneficial effects for positive mental health.

#### **1.4.4 Limitations of studies and current review**

Across the studies involved in the present review, the quality of studies varied in relation to methodological strengths as appraised using the QAC protocol (Kmet et al., 2004). This was reflected through studies varying in the reporting of the processes involved within the research. For example, only one study made reference to power calculations, therefore making it difficult to determine if sufficient statistical power was achieved or if potential Type II errors were made (Cohen, 1992). With nine studies performing statistical analysis such as mediational analysis, power analysis is particularly important (Fritz & MacKinnon, 2007).

The QAC (Kmet et al., 2004) was selected due to its flexibility in assessing a diverse range of study designs (e.g. experimental, randomised-controlled trial). However, of 14 criterion items within the QAC used to assess the level of methodological quality, four items were specifically applicable to an RCT design. Due to none of the studies included in the current review implementing an RCT design, this meant a section of items were not applicable in evaluating the quality of certain methodological factors of the studies selected. As a result, this may have subsequently impacted on the scoring process, based on a number of items being more focused on methodological domains concerning an RCT design, unrelated to a cross-sectional design. Therefore, whilst the QAC (Kmet et al., 2004) captures important elements in determining the standard of research performed, a more specific/ adapted assessment tool to a cross-sectional design may have been more appropriate due to all included studies employing this design. This type of assessment tool

may have been more suitable in providing an in-depth assessment due to some items of the QAC not applying to the studies involved in the current review.

Within the literature, it has been identified that an array of instruments have been used to measure positive mental health due to it being a broad and multi-faceted construct (Dodge, Daly, Huyton & Sanders, 2012). In fact, several researchers have suggested that this has occurred due to a lack of consensus existing around an operational definition of positive mental health and how it should be measured (Forgeard, Jayawickreme, Kern, & Seligman 2011; Dodge, Daly, Huyton & Sanders, 2012). As such, a systematic review (Lindert, Bain, Kubzansky & Stein, 2015) investigating the use of measurement scales for positive mental health found that studies varied in their measurement approach, by either measuring the presence of positive wellbeing (e.g., positive affect) or the absence of mental health symptoms (e.g., depression & anxiety symptoms).

In line with this, the current review found that positive mental health was measured using a diverse range of outcome measurements relating to the presence of positive wellbeing (e.g., life satisfaction, positive affect, psychological wellbeing) or the absence of mental health difficulties (e.g., depressive and anxiety symptoms). As a result, this may present potential construct validity issues, due to increasing evidence suggesting that positive mental health and mental health difficulties are distinct constructs on different continuums (Headey, 2006). This corresponds with Keyes (2005) two-factor continua model suggesting that the absence of mental health symptoms does not necessarily equate to positive mental health. Indeed, it was found that two studies (Lopez et al., 2018; Phillips, 2018) measured the presence of positive mental health through the absence of mental health symptoms (e.g. depressive and anxiety symptoms). For example, one study (Lopez et al., 2018) defined psychological well-being as the absence of depressive symptoms. However, established theoretical conceptualisations of psychological well-being propose that processes connected to self-development and optimal functioning are

representative of psychological well-being (Ryff, 1989), as opposed to the absence of depressive symptoms.

Forgeard, Jayawickreme, Kern, and Seligman (2011) suggest that positive mental health is a multidimensional construct that requires measurement instruments capturing a broad spectrum of factors (i.e. psychological well-being, emotional well-being). In line with this, a further limitation regarding the measurement of positive mental health across the included 16 studies concerned the number of studies using only a singular unidimensional self-report questionnaire to capture positive mental health (e.g. only measuring life satisfaction). It is argued that research studies adopting a unidimensional approach may lead to the omission of other important interrelated facets of positive mental health. For example, theoretical definitions propose that emotional well-being is comprised of affective components (e.g. presence of positive affect and absence of negative affect), alongside cognitive components such as life satisfaction, linked to a person's internal subjective assessment of their life (Keyes et al., 2005). However, of the eight studies that investigated the association between self-compassion and emotional well-being, only four studies (Brown et al., 2015; Fong et al., 2016; Neff et al., 2019; Toplu-Demirtaş et al., 2018) measured both cognitive and affective aspects of emotional well-being. Therefore, in measuring emotional well-being, a high amount of studies may not have captured both important cognitive and affective aspects of emotional well-being by not measuring both features.

Overall, the diverse use of scales within the included studies presents difficulties in forming strong conclusions about the nature of the relationship between self-compassion and positive mental health, due to studies potentially measuring different constructs that are on distinct continuums (e.g., mental health difficulties and positive mental health). In line with this, a systematic review (Lindert, Bain, Kubzansky & Stein, 2015) evaluating how positive mental health was measured, recommended that multi-dimensional scales

should be used in measuring positive mental health, rather than separate unidimensional scales to achieve greater continuity in measuring positive mental health as a construct.

Self-compassion was measured by using the SCS (Neff, 2003) or SCS-SF (Raes et al., 2011) within all studies included in the current review. However, the suitability of the self-compassion measurement raised questions concerning construct validity. More specifically, the factor structure of the SCS has been debated within recent years, with suggestions that a one-factor structure (total SCS score) consisting of both positive and negative subscales does not measure features of self-compassion (self-kindness, common humanity and mindfulness; Lopez et al., 2015; Muris & Petrocchi, 2017). In fact, it has been suggested that the negative subscales of self-compassion (self-judgement, isolation and over-identification) are facets more closely associated with to psychopathology rather than self-compassion (Muris & Petrocchi, 2017). According to theorists, this makes it difficult to deconstruct whether higher positive mental health is due to higher levels of self-kindness, common humanity and mindfulness, or rather due to low levels of self-judgment, isolation and over-identification (Gilbert et al, 2011; Van, Sheppard, Forsyth & Earleywine, 2011). Therefore, suggestions have been made to use only the positive subscale when measuring self-compassion (Muris & Petrocchi, 2017). However, only four studies (Neff et al., 2018; Shin et al., 2018; Toplu-Demirtaş et al., 2018; Yakin et al., 2019) measured self-compassion using only the positive subscale.

Recruitment methods predominately consisted of purposive sampling methods, which may lead to a limited representation of the general population due to samples consisting predominately of a limited sample type. As such, it is therefore important to assess participants' motivation when recruited through convenience sampling, as participants that are more motivated may not be representative of the wider population in generalising such findings. Additionally, a further limitation of the methodological designs employed related to all of the studies implementing a cross-sectional design. This presents difficulties in inferring the temporal sequencing of the relationship between self-

compassion and positive mental health, therefore limiting causal inferences. The application of only self-report measures is an additional methodological issue due to susceptibility of reporting errors such as social desirability when individuals are required to become self-aware and report their internal perceptions. Within the included studies, the samples predominately consisted of females attending university. This subsequently limits the generalisability of such findings due to being a homogeneous sample group. Additionally, the findings from the current review were based on a non-clinical sample and therefore it is unknown if such findings generalise to a clinical population.

All studies included in the review were appraised to meet a certain level of quality and scientific scrutiny (Kmet et al., 2004). However, this poses the risk of publication bias as published articles are more likely to report positive results. Similarly, all studies were in English and are therefore at risk of language or cultural bias, as studies that yielded different results, and were written in other languages, may not have been identified. These limitations may lead to a limited generalisability of key inferences drawn in this review.

#### **1.4.5 Future research**

The current review highlights the role that self-compassion plays within facilitating positive mental health. However, there is still a limited understanding of the relationship between specific components of self-compassion and positive mental health. Bluth and Blanton (2014) argued that investigations into self-compassion are still in their infancy. Of the 16 studies included, only four studies (Choo et al., 2019; Fong et al., 2016; Gunnell et al., 2017; Neff et al., 2018) investigated specific contributions of self-kindness, common humanity and mindfulness relating to positive mental health. Muris and Petrocchi (2017) argue that using the total SCS score presents challenges in further understanding the nature of self-compassion. Therefore, further research is required to understand the relationship between elements of self-compassion and positive mental health due to important clinical

implications that such findings could offer. For example, self-kindness was identified as a significant predictor of positive mental health (Shin et al., 2018). Within one study involving a non-clinical sample, it was found that a brief loving-kindness meditation increased people's feelings of social connectedness (Hutcherson, Seppala, & Gross, 2008). Therefore, further investigations into such domains of self-compassion may be required to inform interventions that could subsequently focus more on self-kindness strategies within interventions.

Moreover, future studies are required to specifically measure improvements in positive mental health following compassion-based interventions. Currently, studies have focused on mental health symptom based measures and further exploration of the impact of interventions designed to cultivate self-compassion on levels of positive mental health are needed. Promising evidence of the effectiveness of compassion-focused therapy already exists within clinical populations (Gilbert & Procter, 2006). However, if self-compassion is viewed as a resilience factor that protects against mental health difficulties (Neff & Germer, 2013) as demonstrated in the included studies, further research is required based on non-clinical samples to illustrate the protective nature it has against mental health difficulties in the longer term.

Within the current review, it was found that a large proportion of participants were female, alongside the limited representation of the male population. More specifically, of the 4080 participants across the 16 studies, 3346 (82%) were female, which may have subsequently limited the generalisability of such findings to a male population. In line with this, a recent meta-analysis (Yarnell et al., 2015) indicated that males had marginally higher levels of self-compassion compared to females. Nevertheless, how the nature of this relationship applies to the association between self-compassion and positive mental health within a male population remains limited and scarce. Therefore, further research is required to explore how self-compassion promotes positive mental health within the male population. Investigating this relationship may further enhance the understanding of how

self-compassion benefits the male population and potentially offering important implications for psychological interventions.

#### **1.4.6 Conclusion**

Emerging research literature has identified that self-compassion is associated with increased well-being (Neff et al., 2007). Furthermore, there is growing evidence that self-compassion may increase features of positive mental health relating to positive affect (Germer & Neff 2013), life satisfaction (Neely et al., 2009) and emotional well-being (Sirois et al., 2015). Therefore, the aim of the current review was to explore how self-compassion may promote positive mental health. Across the 16 studies included in the current review, higher levels of self-compassion were consistently found to be associated with higher level positive mental health in domains such as social, emotional and psychological well-being. This offers an insight into the protective nature of self-compassion, and the influence as a resilience factor (Findlay-Jones, 2017) that acts as a buffer against mental health difficulties (Diedrich et al. 2014). This presents important clinical implications for psychological interventions aimed at cultivating self-compassion that are evolving within a strength-based approach in further promoting positive mental health. Overall, the current review indicates that self-compassion may have beneficial effects for levels of positive mental health.





# **Chapter 2: Early shaming experiences and psychological distress: the role of experiential avoidance, self-compassion and fear of compassion**

## **2.1 Introduction**

### **2.1.1 Early shaming experiences**

Research literature has consistently shown that the quality of early affiliative experiences play an important role on the development of brain maturation, affective regulation and internal working models of the self that influence psychological well-being (Bowlby, 1969, 1973, 1980; Gilbert & Perris, 2000; Mikulincer & Shaver, 2012).

According to attachment theorists, positive relational experiences with primary caregivers act as powerful physiological and psychological regulators that promote well-being (Bowlby, 1979, 1973, 1980; Cacioppo, Berston, Sheridan & McClintock, 2000). In support of this, strong empirical evidence has shown that early affiliative experiences consisting of warmth, acceptance and care promote a sense of security that facilitate the development of self-nurturing and self-soothing abilities that are instrumental in regulating physiological and psychological distress (Caccioppo et al., 2000; Claesson & Sohlberg, 2002). Indeed, theorists have argued that experiencing consistent positive relational interactions offer important resources to cope with adversity that protect against vulnerability to mental health difficulties (Caccioppo et al., 2000; Gilbert, 2005; Masten, 2001; Porges, 2007).

Although positive affiliative experiences have been linked to psychological well-being (Richter, Gilbert & McEwan, 2009), early negative affiliative experiences with significant others (i.e. caregivers) characterised by criticism, rejection, feeling devalued and threatened have been associated with intense feelings of shame (Matos & Pinto-Gouveia, 2010). Shame is a self-conscious emotion that is posited to arise in social

interactions when the self is believed to exist negatively within the minds of others as an unattractive social agent (e.g. defective, flawed, unattractive; Lewis, 1995; Tangney & Dearing, 2002). According to Gilbert's biopsychosocial theory (2002), shame is an emotion with great evolutionary relevancy due to survival being largely dependent upon affiliative relationships (e.g. attachment, romantic, group membership); therefore the need to create positive affect about the self in the mind of others is vital (Gilbert, 1989, 2002). Thus, great emphasis is placed on being approved, valued, desired, and chosen by others, representing a central human need for survival (Gilbert, 2002; Gilbert & Irons, 2009). Shame is proposed to operate as a defensive internal warning signal in response to the social threat of one's personal characteristics that are perceived as undesirable and unattractive becoming visible to others leading to social rejection and ostracisation (Gilbert, 1998, 2002). The activation of shame triggers submissiveness and appeasing behaviours (i.e. keep head down, avoid eye contact, hide) in an attempt to de-escalate and avoid interpersonal contact that could lead to anticipated loss of social status and ostracisation (Gilbert, 1989, 2000).

Therefore, early experiences of self-other interactions with significant others (i.e. caregivers) characterised by being shamed, where the self is perceived to exist negatively within the mind of others can have negative implications for the sense of self through the formation of self-schemas as unlovable, worthless and flawed (Matos, Pinto-Gouveia & Costa, 2013). Such experiences are particularly impactful when the shaming is committed by a parent (Matos & Pinto-Gouveia, 2014). The experience of frequently being shamed by significant others can lead to increased proneness to high levels of shame through the internalisation of such negative experiences with caregivers (Claesson & Sohlberg, 2002; Gilbert & Gerlsma, 1999; Matos & Pinto-Gouveia, 2010). Additionally, these experiences may be stored as powerfully conditioned emotional memories of being perceived as

flawed, worthless and unlovable by others that become easily triggered and therefore provoking intense and prolonged feelings of shame (Gilbert & Irons, 2009). In fact, frequent negative early shaming experiences have been linked to increased vulnerability to the later development of mental health difficulties (Gilbert 1998).

As with all other emotions, from an evolutionary perspective shame is adaptive and essential to normal development, however, high state and trait levels have been linked to increased vulnerability to mental health difficulties relating to mental health difficulties (Gilbert, 1998; Kaufman, 1989; Mills, 2005; Schore, 1998). A growing body of evidence has identified shame as an etiological and perpetuating factor relating to a range of mental health difficulties (Lewis, 1992; Gilbert, 1998). This includes depression (Gilbert, 2000; Cheung, Gilbert, & Irons, 2004; Tangney et al., 1992; Andrews, Qian, & Valentine, 2002), social anxiety (Grabhorn, Stenner, Stangier, & Kaufhold, 2006), and post-traumatic stress disorder (PTSD) symptoms (Robinaugh & McNally, 2010; Wekerle et al., 2009).

Given the powerful impact of early relational experiences on the maturation and development of emotional regulation systems (Siegel, 2001), research has shown that negative early shaming experiences can have detrimental effects on the development of emotional regulatory systems in responding to emotional distress, linked to mental health difficulties (Gilbert, 2009; Schore, 1994). In fact, research has proposed that the association between early adverse experiences and later mental health difficulties may be explained by the excessive development of the threat system (Dickerson, Gruenewald & Kennedy, 2004) and the underdevelopment of the soothing system (Irons et al., 2006). According to the tripartite model of affective regulation (Gilbert, 2009), three interacting emotional regulatory systems, known as the threat, drive and soothing system exist. Theorists have proposed that such systems have evolved to increase chances of survival, by fulfilling different evolutionary functions in detecting and responding to threat, seeking

resources for survival and downregulating negative affect within social affiliative relationships (Depue & Morrone-Strupinsky, 2005; Gilbert, 2005, 2009).

According to Gilbert, the threat system is central to the ability to detect and respond to threat (LeDoux, 1998). The activation of this system stimulates neurophysiological pathways associated with defensive based emotions such as shame, anger and disgust, leading to the activation of protective-based behaviours (e.g. fight, flight, freeze, appeasement; Gilbert, 2009). Stimulation of the threat system can occur both internally (i.e. memories) and externally (i.e. being threatened by another person; Gilbert, 2009). In contrast, the main function of the drive system corresponds with seeking and acquiring rewards and resources (e.g. food, sexual opportunities), and gives rise to the positive emotions of drive, excitement and vitality linked to dopaminergic pathways (Depue & Morrone-Strupinsky, 2005).

The soothing system is associated with positive affiliative emotions such as contentment, safeness and warmth (Gilbert, 2009). This system evolved alongside the attachment system (Depue & Morrone-Strupinsky, 2005; Gilbert, 2009), and is suggested to be stimulated by signals of care (Gilbert, 2009). Theoretical perspectives have proposed that the development of the soothing system is largely influenced by the attachment system, with positive attachment relationships being associated with increased stimulation of affiliative emotions (Gilbert et al., 2008). Activation of the soothing system stimulates neurophysiological pathways within the parasympathetic nervous system that downregulate stress responses through the release of oxytocin and opiates that communicate that the person is safe (Porges, 2007). Increasing evidence has postulated that the soothing system is crucial to the downregulation of the threat system through the stimulation of affiliative emotions that soothe negative affect (Gilbert, 2009). Gilbert (2010) argued that the interplay between these three systems is instrumental in the experience of

mental health difficulties. As such, theoretical literature has suggested that increased vulnerability to mental health difficulties occurs through an imbalance existing within these three systems (Gilbert & Proctor, 2006), particularly relating to an overstimulated threat system (Gilbert, 2009).

Indeed, early shaming experiences have been associated with compromising the development of such emotional regulatory systems (Matos & Pinto-Gouveia, 2013). Specifically, strong empirical evidence has indicated that early shaming experiences have negative implications for brain neurodevelopment (Gerhardt, 2004; Schore, 2001; Siegel, 2001), due to overstimulating powerful neurophysiological pathways linked to the release of cortisol and serotonin that activate the threat system (Dickerson, Gruenewald & Kennedy, 2004). Frequent affiliative experiences consisting of shame have been linked to overstimulating the threat system, due to the threat posed towards one's social and self-identity in being negatively perceived as defective, weak or unworthy, as well as viewing others as critical, judgmental, unavailable and threatening (Gilbert, 2010; Matos & Pinto-Gouveia, 2014). Such perceived threats therefore lead to increased susceptibility to triggering defeat and threat affective states (i.e. shame) and defensive behaviours associated with threat and defeat (i.e. isolating the self), such as depression (Matos & Pinto Gouveia, 2014; Perry, Pollard, Blakley, Baker & Vigilante, 1995).

It is theorised that early shaming experiences amplify vulnerability to depressive symptoms due to the development of the soothing system becoming inhibited by the absence of experiences of warmth, safeness and compassion, therefore limiting resources available to self-soothe and downregulate negative affect (Irons et al., 2006; Richter et al., 2009). In line with this, research has shown that receiving warmth and care within affiliative relationships is instrumental in stimulating positive affiliative emotions of safeness and connectedness that are powerful regulators in deactivating the threat system

(Cacciopo et al., 2000; Masten, 2001; Porges, 2007). These experiences promote the development of inner-soothing abilities that are key to regulating affective states (i.e. shame) and protecting against vulnerability to mental health difficulties (Gilbert, Baldwin, Irons, Baccus, & Palmer, 2006; Mikulincer & Shaver, 2012; Schore, 1994). In fact, recall of parental warmth was associated with the ability to be self-reassuring through displaying warmth, self-kindness and understanding towards the self in response to stressful setbacks and was negatively associated with depression (Gilbert et al., 2006; Irons et al., 2006). Literature has linked the development of such self-soothing abilities to positive outcomes such as self-esteem, happiness and social and emotional well-being (DiBartolo & Helt, 2007; Mikulincer & Shaver, 2012; Richter et al., 2009). Therefore, the absence of warm and positive affiliative experiences has been linked to the under stimulation of the soothing system, key to the downregulation of the threat system (Irons, Gilbert, Baldwin, Baccus, & Palmer, 2006). Theorists have proposed that limited development of such self-soothing skills are associated with elevated vulnerability to mental health difficulties, namely depression (Gilbert et al., 2003).

Empirical evidence supports such suggestions, with a strong association between experiences of feeling threatened, subordinated or rejected in childhood by caregivers and depression symptoms being found (Gilbert, Cheung, Grandfield, Campey, & Irons, 2003). Similarly, it has been suggested that the recall of shaming experiences with caregivers in childhood and adolescence predicted depression symptoms in adulthood (Matos, Pinto Gouveia, & Costa, 2013). This emphasises the importance the parent-child relationships within the development of adaptive self-regulatory skills (Goodman & Thompson, 2010).

### **2.1.2 Experiential avoidance**

It has been well established within the literature that negative affiliative experiences such as early shaming experiences can have negative implications for emotional regulatory skills (Thompson & Goodman, 2010), leading to increased vulnerability to mental health difficulties (Gilbert, 1998). However, the processes underlying this relationship still remain unclear. Increasing evidence has begun to identify psychological processes such as experiential avoidance as underpinning a range of mental health difficulties (Hayes, Wilson, Gifford, Follette & Strosahl, 1996), including depression (Cribb, Mould & Carter, 2006; Rueda, 2016), anxiety (Newman & Llera, 2011) and post-traumatic stress disorder (PTSD; Kumpula, Orcutt, Bardeen, & Varkovitzky, 2011). Rooted in Acceptance and Commitment Therapy (ACT; Hayes, Strosahl & Wilson, 1999) theory, experiential avoidance refers to an unwillingness to experience unpleasant private internal events (i.e., emotions, thoughts and body sensations). According to ACT theorists, this leads to attempts to alter the frequency, intensity or duration of such experiences through various avoidant emotional regulatory strategies (i.e., rumination, thought suppression) in an effort to relieve emotional distress (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). However, increasing evidence has shown that the utilisation of such strategies has the paradoxical effect, leading to an increase in emotional distress (Clark, Ball, & Pape, 1991; Gold & Wegner, 1995; Wegner, Schneider, Carter, & White, 1987; Wegner, Schneider, Knutson, & McMahon, 1991). It is proposed that experiential avoidance turns into a maladaptive process when it serves the purpose of rigidly and inflexibly controlling undesired internal events (Kashdan, Barrios, Forsyth, & Steger, 2006), that results in oneself deviating from valued life goals (Hayes et al., 1999)

A growing body of evidence has found a strong association between experiential avoidance and avoidant emotional coping strategies such as cognitive suppression (Campbell-Sills, Barlow, Brown, & Hofmann, 2006; Feldner, Zvolensky, Eifert, & Spira, 2003), rumination (Cribb, Moulds, & Carter, 2006; Nolen-Hoeksema & Harrel, 2002) and worry (Santanello & Gardner, 2007). In accordance with this, increasing evidence has suggested that early negative affiliative experiences may play a role within intensified engagement in experiential avoidance (Carvalho, Dinis, Pinto-Gouveia and Estanqueiro, 2015). Specifically, research findings have shown that individuals with an abuse history reported amplified levels of experiential avoidance (Batten, Follette, & Aban, 2001; Gratz, Bornovalova, Delany-Brumsey, Nick, & Lejuez, 2007) and employed cognitive avoidant coping strategies such as thought suppression (Krause, Mendelson, & Lynch, 2003). This has led to suggestions that experiential avoidance may be a core underlying mechanism explaining the relationship between early adverse experiences and later psychological difficulties (Dinis, Carvalho, Gouveia & Estanqueiro, 2015). For example, findings illustrated that experiential avoidance was a mediator in the relationship between adverse early experiences and obsessive–compulsive symptoms (Briggs & Price, 2009).

Similarly, emerging evidence investigating specific adverse experiences relating to early shaming experiences highlighted the role of experiential avoidance in mediating the relationship between early shaming experiences and depression (Carvalho et al., 2015; Merwin, Rosenthal & Coffey, 2009). As such, it is proposed that individuals engage in experiential avoidance in response to overwhelming emotions (i.e. shame), due to limited emotional coping resources available to regulate such distress (Kashdan, Barrios, Forsyth, & Steger, 2006). This is supported by recent research findings illustrating that experiential avoidance strategies such as rumination, thought suppression and dissociation mediated the relationship between early shaming experiences and depressive symptoms (Matos et al.,



2013). Therefore, preliminary evidence has suggested that experiential avoidance may play a central role in explaining the relationship between early shaming experiences and psychological distress, however, research exploring what this relationship is contingent on still appears to be in its infancy.

### **2.1.3 Self-Compassion**

Accumulating research evidence has begun to focus on psychological processes that may protect against mental health difficulties through enhancing psychological resourcefulness (Gillham & Seligman, 1999). One process that has been suggested to be a protective factor is self-compassion (Neff, 2003; Trompetter et al., 2017). Self-compassion has been described as an adaptive way of relating to oneself in a kind and non-judgemental manner during experiences involving suffering and adversity (Neff, 2003). According to Neff (2003), self-compassion consists of three interrelated bipolar components: (1) self-kindness (vs. self-judgement), which represents the capacity to be caring and kind to oneself rather than excessively self-critical, (2) common humanity (vs. isolation) represents an understanding that failure is a common human experience, rather than feeling isolated from others (3) mindfulness (vs. over-identification), which represents being present and aware while keeping thoughts in balance rather than over-identifying and ruminating about such experiences (Neff, 2003a, 2003b).

Within recent years, self-compassion has been conceptualised as an adaptive emotional regulatory strategy in response to negative emotions (Diedrich et al., 2014; Diedrich, Burger, Kichner & Berking, 2017; Gilbert & Procter, 2006; Neff, 2003). The concept of adaptive emotional regulation is defined as representing the implementation of strategies that enable an individual to cope with undesired emotions in a manner that does not interfere with the pursuit of valued goals (Bridges, Denham, & Ganiban, 2004; Grawe,

2007). As such, Allen and Leary (2010) have suggested that self-compassion encourages non-avoidance strategies (e.g. positive cognitive reframing, problem solving) in response to negative affect. In support of this, self-compassion was found to be negatively associated with underlying psychological processes associated with depression such as rumination (Raes, 2010; Krieger et al., 2013) and self-criticism (Zhang et al., 2019). Furthermore, empirical evidence found that self-compassionate individuals engaged less in these emotional regulatory processes leading to reduced levels of depression (Krieger et al., 2013)

Theoretical literature has posited that self-compassion promotes a set of cognitive competencies that enables a sensitivity to the suffering of the self and the motivation to engage in helpful actions to prevent or alleviate such distress through self-kindness, courage and warmth (Gilbert, 2005, 2010; Neff, 2003). Such competencies include distress tolerance, non-judgement, empathy and sympathy (Gilbert, 2009). Gilbert (2005, 2009) postulates that self-compassionate competencies promote feelings of security and connectedness that foster the ability to deal with challenging contexts and adversity (Gilbert, 2009). Furthermore, self-compassionate people respond to their distressing emotions from a position of acceptance, with a sense of understanding and self-kindness that promote increased well-being (Neff, 2003, Neff et al., 2007). In turn, experiences of failure are perceived as a common experience among humans, rather than over-identifying with such failures through directing criticism towards the self for perceived inadequacies (Gilbert, 2009; Neff, 2003). In support of this, research evidence has found that relating to self with self-compassion has been found to have positive implications for experiencing less negative affect and promoting positive affect (Lutz, Greischar, Rawlings, Ricard, & Davidson, 2004) and operating as a resilience factor against mental health difficulties (Cohn, Fredrickson, Brown, Mikels & Conway, 2009, 2009).

According to theoretical perspectives, self-compassion stimulates the soothing system through signals of affiliation (e.g. care, affection) that promote positive affiliative emotions of safeness, warmth and connectedness that downregulate over-arousal and negative affect (i.e. shame, anger, disgust) elicited by the threat and/or drive system (Gilbert, 2005, 2009). Stimulation of the soothing system is suggested to be instrumental in downregulating the threat system that is theoretically proposed to underpin a range of mental health difficulties such as anxiety and depression (Gilbert & Proctor, 2006). In addition, stimulation of the soothing system activates the parasympathetic nervous system, associated with oxytocin receptors linked to relieving stress, promoting well-being (Porges, 2007) and facilitating adaptive emotion regulation in threat contexts (Thayer & Lane, 2000). Research literature has suggested that the soothing system evolved alongside the attachment system (Bowlby, 1969, 1973, 1980), with feelings of safeness and contentment originating from affiliative interactions with attachment figures (Depue & Morrone-Strupinsky, 2005). In support of this, Gilbert et al. (2008) found that feelings of contentment were positively associated with secure attachment experiences and negatively associated with insecure attachment.

Based on neuroscience, attachment and evolutionary approaches, the social mentality theory (Gilbert, 1989, 2000) proposed that self-to-self relating through self-compassion activates the same psychobiological systems embedded within the attachment system that were originally evolved for relating to others with care and affiliation. As such, it is argued that regularly being soothed through receiving compassion and care facilitates the development of inner soothing abilities, which regulate the threat system (Cozolino, 2007; Gillath et al., 2005). Indeed, the child internalises positive affiliative experiences of receiving compassion and comfort within the attachment system to form positive soothing emotional memories that are used to regulate and self-soothe in moments of emotional

distress (Baldwin & Dandeneau, 2005; Gillath et al., 2005; Lee & James, 2012). Empirical evidence supporting this found that experiences of being loved and feeling safe within childhood were connected to lower levels of self-criticism and a higher ability to be compassionate to oneself in experiences of setbacks (Neff & McGhee, 2010; Richter, Gilbert & McEwan, 2009). While, negative affiliative experiences consisting of hostility and insensitivity within attachment relationships were associated with low levels of self-compassion (Neff & McGhee, 2010).

Growing evidence has suggested that self-compassion ameliorates mental health difficulties through promoting feelings of social connectedness, warmth and contentment (Gilbert, 2005; Pinto-Gouveia, Duarte, Matos, & Fráguas, 2014). For example, a meta-analysis found that high self-compassion was inversely associated with psychopathology symptoms of depression and anxiety (MacBeth & Gumley, 2012). Furthermore, research found self-compassion acted as a protective factor against depressive symptoms within a large general population sample (Koener et al., 2015). Additionally, self-compassion was shown to operate as a buffer through mitigating the effects of early shaming memories on eating psychopathology severity. Specifically, it was found that individuals' who had higher levels of self-compassion reported less severe eating disorder symptoms in comparison to those low in self-compassion (Ferreira, Matos, Duarte & Pinto-Gouveia, 2014). According to Gilbert (2009), self-compassion is an anti-dote to shame, which is linked to a range of mental health difficulties such as depression and anxiety (Gilbert & Proctor, 2006). Therefore, increasing evidence has suggested that the cultivation of self-compassion is important in alleviate emotional distress.

The psychological benefits of cultivating self-compassion has led to the development of compassion-based therapies such as Compassion-Focused Therapy (CFT; Gilbert, 2005). CFT was developed for individuals experiencing high levels of shame and self-

criticism (Gilbert, 2009). The objective of CFT relates to the cultivation of self-compassion through stimulating the soothing system to create a sense of safeness and contentment (Gilbert, 2009). Gilbert (2005) proposes this process enables the activation of the parasympathetic nervous system leading to the release of hormones such as oxytocin that regulate distress by suppressing threat responses located within the threat system, associated with emotions such as shame, anxiety, anger and disgust. A large body of evidence has demonstrated the effectiveness of CFT in a range of mental health difficulties, such as anxiety and depression (Gilbert & Procter, 2006; Kelly, Zuroff, & Shapira, 2009), psychosis (Braehler et al., 2013; Laithwaite et al., 2009), eating disorders (Gale, Gilbert, Read & Goss, 2014), personality disorders (Lucre & Corten, 2013), and post-traumatic stress disorder (PTSD; Lawrence & Lee, 2014; Bowyer, Wallis, & Lee, 2014).

#### **2.1.4 Fear of self-compassion**

Although self-compassion has been established as a protective factor during experiences of suffering and setbacks (Neff, 2003), research has identified that certain individuals may feel fearful and resistant in expressing compassion towards the self (Gilbert, McEwan, Matos and Rivis, 2011). According to Gilbert (2005, 2009), the capacity to be compassionate towards the self is influenced by the development of the soothing system, linked to the attachment system. As such, affiliative experiences consisting of negative attachment experiences have been connected to later fears in receiving compassion due to the attachment system 'closing down' leading to the underdevelopment of the soothing system (Silva, Ferreira, Mendes & Marta-Simoes, 2019). Empirical evidence has shown that negative affiliative experiences characterised by a lack of warmth and affection may be stored within the attachment system as conditioned

emotional memories, which can be influential in the construction of self-identity (Mendes, Marta-Simões, and Ferreira, 2016). It is suggested that these experiences can lead to the development of self-schemas as ‘unlovable’ and ‘unworthy of care’, leading to intensified negative emotional states (i.e. shame; Mendes, Marta-Simões, & Ferreira, 2016).

Therefore, the experience of such intense emotional states can result in the attachment system ‘closing down’ due to the aversive nature of such memories, along with the absence of positive affiliative experiences to aid self-soothing (Gilbert, McEwan, Matos & Ravis, 2011).

Due to such experiences, affiliative motives like compassion may be perceived with fear, as affiliative signals are linked to the activation of the soothing and attachment system (Gilbert, 2009). Based on this, Gilbert (2010) proposed that fears of self-compassion may be due to the fact that directing affiliative feelings towards the self may trigger memories of loss within the attachment relationship, associated with not receiving compassionate feelings from significant others that the individual desperately desired as a child (Gilbert, McEwan, Matos & Ravis, 2011). Empirical evidence found fear of self-compassion was found to be strongly associated with feelings of inferiority and inadequacy (Oliveira et al., 2017). Therefore, increasing evidence has found that individuals may feel they are undeserving of self-compassion and have formed negative beliefs about compassion (Gilbert et al., 2011).

Furthermore, the absence of positive affiliative experiences in early life may result in the strengthening of the threat system, as well as the underdevelopment of the affiliative system (Matos, Duarte, Pinto-Gouveia, 2017) leading to increased vulnerability to mental health difficulties (Gilbert et al., 2011). As such, the overstimulation of the threat system may increase one’s proneness to experience defense based emotions of shame, anxiety, anger and sadness that become difficult to regulate due to the soothing system being

underdeveloped and inactive (Irons et al., 2006). Furthermore, in appraising self-compassion as aversive and frightening, the soothing system is unlikely to be stimulated to regulate such distress (Gilbert et al., 2011). Empirical evidence found that adolescents who recalled shaming experiences involving submissiveness and threat in childhood reported greater levels of fear of self-compassion and engaged in more deliberate self-harm behaviours, than those who recalled positive childhood experiences (Xavier, Cunha, and Pinto Gouveia, 2015). Therefore, psychological processes relating to fear of self-compassion are associated with increased vulnerability to mental health difficulties due to under-development of self-reassuring and self-soothing abilities that are integral in protecting against mental health difficulties (Gilbert et al., 2011; Miron, Sherrill & Orcutt, 2015).

Increasing evidence has identified the strong association between fear of self-compassion and mental health difficulties. For example, a recent meta-analysis highlighted the obstacle that fear of self-compassion presents in cultivating self-compassion, leading to increased vulnerability to mental health difficulties (Kirby et al., 2019). Additionally, research literature has shown that fear of self-compassion was associated with low levels of self-compassion and high levels of depression (Gilbert et al. 2011). Similarly, within a clinical sample of depressed individuals, Gilbert et al. (2014) found an association between fear of self-compassion and self-criticism, depression, anxiety and stress symptoms, as well as being negatively associated with self-compassion and self-reassurance.

### **2.1.5 The present study**

The aims of the current study were twofold. Firstly, considerable evidence has identified that the relationship between early shaming experiences and psychological distress is mediated by increased engagement in experiential avoidance (Dinis et al., 2015;

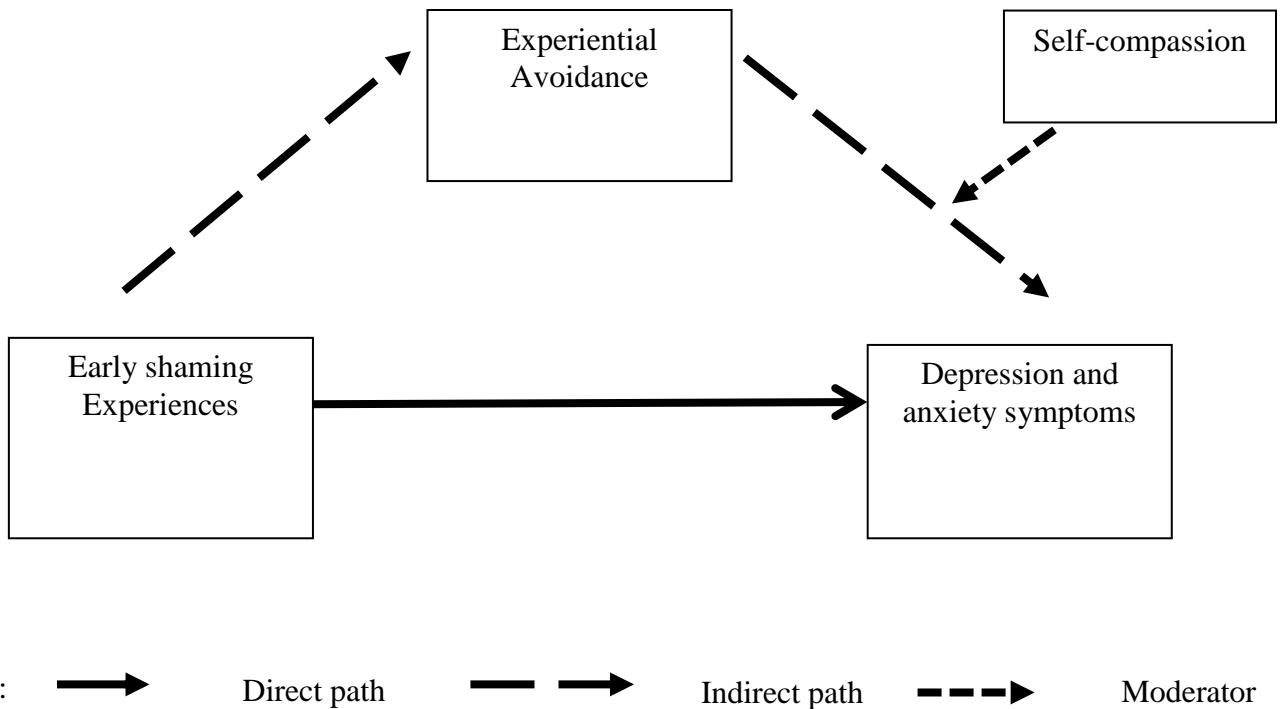
Carvalho et al., 2015). However, despite such findings, a lack of research exists in ascertaining what the nature of this relationship is contingent on and if specific protective psychological processes such as self-compassion may weaken this relationship. Within the research literature, self-compassion has been conceptualised as an adaptive emotional regulatory mechanism that may counter negative psychological processes (Barnard & Curry, 2011; MacBeth & Gumley, 2012).

Therefore, the primary aim of the current study was to explore if experiential avoidance mediates the relationship between early shaming experiences and psychological distress, as well as exploring if self-compassion acts as a moderator within the mediating relationship between experiential avoidance and psychological distress.

Secondly, research has connected early shaming experiences with increased vulnerability to mental health difficulties (Matos et al., 2014). However, the psychological mechanisms underlying this relationship still remain unclear. Fear of self-compassion has been identified as a psychological process linked to increased vulnerability to mental health through the absence of positive affiliative experiences (Gilbert et al., 2011). However, the relationship between these factors has not been explored, with regards to the influence of early shaming experiences on psychological distress via the mediating effects of fear of self-compassion. As such, the present study aimed to explore if fear of self-compassion mediated the relationship between early shaming experiences and increased psychological distress.



### 2.1.6. Hypotheses



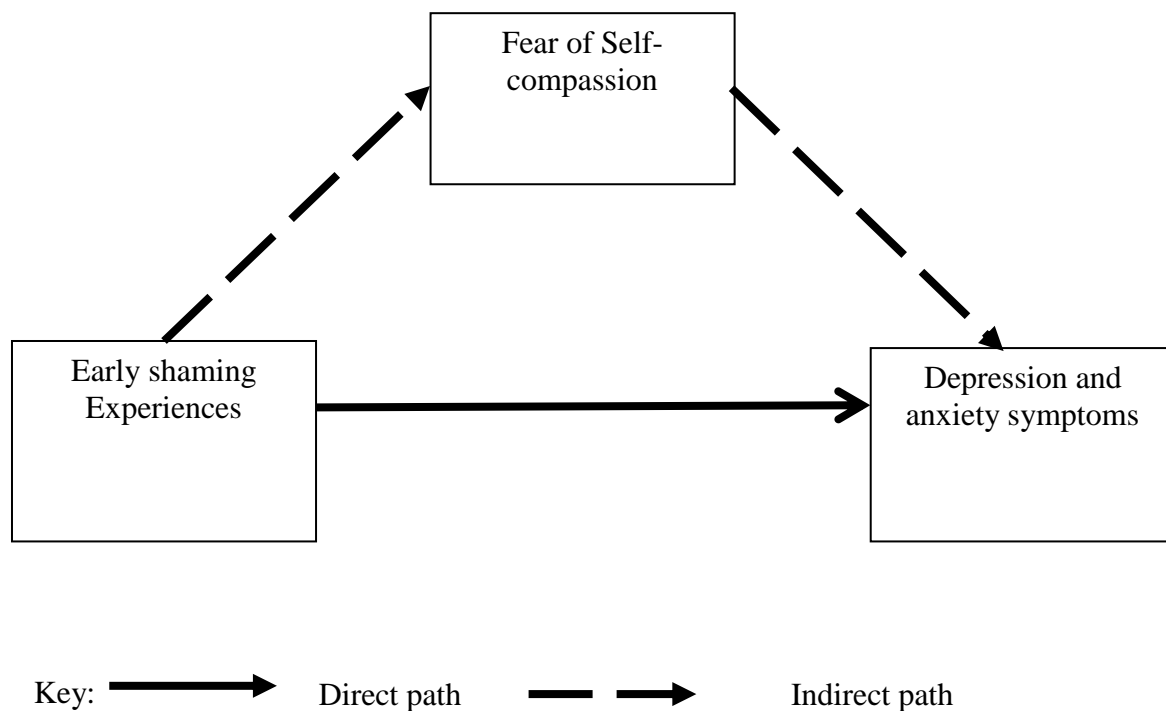
*Figure 2.* Diagram of hypothesised indirect effect of early shame experiences on psychological distress influenced by experiential avoidance as moderated by self-compassion

The hypotheses were:

1. Higher levels of self-compassion will be associated with lower levels of psychological distress (i.e., depression and anxiety).
2. Higher levels of self-compassion will be associated with lower levels of experiential avoidance.
3. Experiential avoidance will mediate the relationship between early shaming experiences and psychological distress, with this relationship being moderated by

self-compassion. More specifically, it is hypothesised that higher levels of self-compassion will weaken the indirect effects of experiential avoidance leading to reduced levels of depression and anxiety symptoms. See *Figure 2.* for diagrammatic illustration.

4. Fear of self-compassion will mediate the relationship between early shaming experiences and psychological distress (see *Figure 3*).



*Figure 3.* Diagram of hypothesised mediating effect of fear of self-compassion on the relationship between early shaming experiences and psychological distress

## **2.2 Methodology**

In line with the ethical requirements, the current study was approved by the Psychology Ethics Committee at the University of Southampton (see Appendix C). This involved participants being notified of the objective of the research through being presented with an information sheet (see Appendix E), as well as a debrief sheet (see Appendix F) explaining the purposes of the study and available support (i.e. university student support and self-help mental health resources) if required.

### **2.2.1 Design**

The design implemented within the current study was a cross-sectional design. This involved participants completing five questionnaires at one time point via an online data collection database. The present study consisted of four independent variables involving early shaming experiences, experiential avoidance, self-compassion and fear of self-compassion. The dependent variable was psychological distress, measured by depression and anxiety symptoms.

### **2.2.2. Participants**

Participants were undergraduate psychology students from the University of Southampton and non-students from the general population. University students were recruited through the psychology department's research participation recruitment system, whilst individuals from the general population were recruited via crowdsourcing methods (i.e., [www.callforparticipants.com](http://www.callforparticipants.com)) and social media platforms (i.e., Twitter, Facebook). The inclusion criterion for participants was: (a) being aged between 18-64 years old, (b) can read and understand English. A total of 556 individuals (475 students, 81 general population) participated within the study. Of the total participants, 85% were female (473

female, 83 male). Participants were aged between 18 and 53 years ( $M = 20.01$ ,  $SD = 2.73$ ).

Most of the sample identified as of a White British background (386, 69.4%). See Table 3 for demographic information.

Table 3

*Demographic variables of participants (N=556)*

Demographic variables	<i>N</i>	%
<b>Status</b>		
Student	475	85
General Population	81	15
<b>Sex</b>		
Male	83	15
Female	473	85
<b>Ethnicity</b>		
White British	386	69.4
White Irish	5	.9
Other White background	63	11.3
White and Black	6	1.1
Caribbean	14	2.5
Indian	7	1.3
Pakistani	1	.2
Bangladeshi	10	1.8
Chinese	16	2.9
African Caribbean	3	.5
Arab	7	1.3
Other	38	6.8

### 2.2.3. Measures

#### 2.2.3.2 *Self-compassion*

*Self-compassion Scale (SCS; Neff, 2003b)* is a 26-item self-report questionnaire measuring self-compassion (See Appendix G). Each scale item is rated on a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always). The SCS is comprised of six subscales, with three subscales relating to positive components of self-compassion: self-kindness (e.g., “I’m kind to myself when I’m experiencing suffering”), common humanity (e.g., “I try to see my failings as part of the human condition”) and mindfulness (e.g., “When something upsets me I try to keep my emotions in balance”). The other three subscales measure the negative counterparts of self-compassion: self-judgement (e.g., “I’m disapproving and judgmental about my own flaws and inadequacies”), isolation (“When I fail at something that’s important to me, I tend to feel alone in my failure”) and over-identification (e.g., “When something upsets me I get carried away with my feelings”). A higher overall score indicates a higher level of self-compassion.

The use of the total SCS has been debated within recent years, with several studies indicating that a one factor structure (total SCS score) inflates the relationship between self-compassion and psychopathology, with negative subscales correlating more closely with psychopathology than self-compassion (Lopez et al., 2017; Muris & Petrocchi, 2017). Instead, increasing emerging evidence has proposed a two-factor structure (Lopez et al, 2015). Previous studies have referred to the two-factor structure as “self-compassion” versus “self-criticism” or “self-coldness” (Brenner et al. 2017; López et al. 2015). The two-factor structure consists of one factor measuring self-compassion (SCS-POS: composite score of self-kindness, common humanity and mindfulness), and one measuring self-criticism (SCS-NEG: composite score of self-judgement, isolation and over-

identification). Due to the current study focusing on self-compassion, the SCS-POS was used to measure this based on theoretical suggestions by Muris and Petrocchi (2017). The SCS-POS subscale demonstrated excellent internal reliability ( $\alpha=.91$ ).

### 2.2.3.3 Fear of Compassion

*The Fear of compassion scales* (Gilbert, McEwan, Matos & Rivis, 2011) measures fear of compassion in three domains: relating to fear of compassion for the self, from others and for others (see Appendix H). In line with the aim of the current study in measuring fear of self-compassion, the Fear of Compassion for Self subscale (FOC-S) was used. This subscale is comprised of 15 items (e.g. “*Getting on in life is about being tough rather than compassionate*”). Items were rated on a five-point Likert scale (0=don’t agree at all, 4=completely agree). A higher score on the FOC-S reflected a higher level of fear of expressing compassion towards the self. Gilbert et al.’s (2011) study demonstrated good levels of internal reliability within the subscale of fear of compassion for the self ( $\alpha = .92$ ). In the present study, an excellent level of internal consistency was demonstrated ( $\alpha = .89$ ).

### 2.2.3.4 Early shaming experiences

*Early Life Experiences Scale (ELES; Gilbert, Cheung, Grandfield, Campey, & Irons, 2003)*. The ELES (Gilbert et al., 2003) is a 15 item self-report questionnaire used to measure elements of shame experiences (see Appendix I). This specifically measures an individual’s recollection of emotional memories relating to experiences of feeling devalued, threatened and behaving in a submissive manner in childhood. The ELES is comprised of three subscales measuring experiences of submissiveness (e.g. “I often had to give in to others at home”), feelings of being (un)valued (e.g. “I felt an equal member of

my family”) and feeling threatened (e.g. “I experienced my parents as powerful and overwhelming”).

Participants were required to rate the truth and frequency of each statement for them during their childhood and each item is rated on a five-point scale (1= completely untrue; 5= completely true). Gilbert et al. (2003) demonstrated excellent internal consistency for the total score ( $\alpha = .92$ ), along with Cronbach’s alphas of .89 for threat, .85 for submissiveness, .71 for (un)valued subscales. Within the current study, similar levels of internal consistency scores were demonstrated to Gilbert et al.’s study (2003), with a Cronbach’s alpha scores of .86 for submissiveness, .89 for threat, .73 for (un)valued and .93 for the total score.

#### *2.2.3.5 Experiential Avoidance*

*The Acceptance and Action Questionnaire II (AAQ-II: Bond et al., 2011)* is a seven item self-report questionnaire used to measure the level of engagement in experiential avoidance (see Appendix J). The AAQ-II (Bond et al., 2011) assesses an individual’s propensities to make negative appraisals of experiencing private events (i.e. thoughts, memories, feelings) and the unwillingness to be in contact with these private events (e.g., ‘*I’m afraid of my feelings*’ and ‘*my painful memories prevent me from having a fulfilling life*’). Participants were asked to rate how much each statement applied to them on a 7-point Likert scale (1= never true; 7= always true). A higher score indicated higher levels of experiential avoidance. Within previous research, the AAQ-II has demonstrated good psychometric qualities, including internal consistency ( $\alpha = .84$ ) and test-retest reliability across a three ( $r = .81$ ) and twelve ( $r = .79$ ) month period (Bond et al., 2011). Within the present study, the AAQ-II demonstrated excellent internal consistency ( $\alpha = .91$ ).

### 2.2.3.6 Psychological distress

*Depression, Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995)* is a 21-item self-report questionnaire measuring levels of depression, anxiety and stress (see Appendix K). The DASS-21 is comprised of three subscales: depression (seven items), anxiety (seven items) and stress (seven items). A higher score indicated more severe levels of depression, anxiety and stress. Participants were required to rate how much each statement applied on a 4-point Likert scale (0=Did not apply to me at all, 3= Applied to me very much, or most of the time), The DASS-21 demonstrates good psychometric properties such as construct validity and internal consistency ( $\alpha=.93$ ) within a non-clinical population (Henry & Crawford, 2005). The stress subscale was not selected within the current study due to the present study focusing on measuring mental health symptomatology, specifically concerning anxiety and depressive symptoms. This was informed by previous research (Carvalho et al., 2019; Cunha et al., 2017; Ferriera et al., 2018), with the aim of further expanding upon previous research investigating similar constructs Therefore, within the present study, only the depression and anxiety subscales were used to investigate the present study's hypotheses. Good psychometric properties were demonstrated for both the subscales of depression ( $\alpha = .93$ ) and anxiety ( $\alpha = .84$ ) in the current study.

### 2.2.4 Procedure

The online study was created using Qualtrics software (Qualtrics, Provo, UT, USA). Following approval from the University of Southampton's Psychology Ethics Committee (see Appendix C), the survey was advertised (see Appendix D) on the research



participation platform for undergraduate psychology students. For recruitment of the general population, online research based forums ([www.callforparticipants.com](http://www.callforparticipants.com)) and social media platforms (e.g., Pinterest, Twitter, Facebook) were utilised. All participants accessed the study via Qualtrics' secure site (<http://www.qualtrics.com>).

Before proceeding with the study, participants were presented with an information sheet (Appendix E) outlining the objectives of the study, informing them of the anonymity and confidentiality of their responses, as well as their right to withdraw at any stage during the study. If participants agreed to participate in the study after reading the information form, they proceeded to the first set of questions. The study consisted of five questionnaires, first commencing with the DASS-21 (Lovibond & Lovibond, 1995), followed by the ELES (Gilbert et al., 2003), AAQ-II (Bond et al., 2011), Self-Compassion Scale (SCS; Neff, 2003) and Fear of Self-Compassion subscale (Gilbert et al., 2011).

Once all questionnaires were completed, participants were presented with a brief mood task involving the option of a range of mindfulness based videos. Following this, participants were presented with a debrief sheet (Appendix F) that outlined the purpose of the study, as well as available support (i.e., self-help mental health materials, accredited therapist directory). Participants were given the option to 'opt-in' to the prize draw of one of four £25 Amazon vouchers. This involved participants' providing an email address that would be stored on a separate password protected database to the database containing the survey response to maintain confidentiality. It was explained that such information would be removed once the prize draw was completed.

## **2.2.5 Data Analysis**

### *2.2.5.1 Data analytic strategy*

In total, 678 individuals logged into Qualtrics. As 122 users did not complete all the study (but only, e.g., IP-addresses were logged), these users were removed from further analyses and were not treated as participants. This meant a total of 556 were included for analysis.

Data analysis was conducted using SPSS (v. 25; IBM Corporation). Total scores and subscale scores were calculated for each variable. Prior to conducting statistical analysis, preliminary checks were made through screening data for missing data and potential outliers. Due to the study being in an online protocol, settings were made that required individuals to complete all questions, therefore, no missing data was present. The presence of potential outliers was assessed using histograms, boxplots and Q-Q plots (Field, 2013). Furthermore, any potential outliers identified were further assessed by converting raw scores into standardised Z-scores to assess if the outlier surpassed the  $\pm 3.29$  Z-score criterion as recommended by Tabachnick and Fidell (2007).

Following this, normality checks were conducted for normality of distribution through visually inspecting histograms and QQ-plots. Descriptive statistics relating to skewness and kurtosis were also assessed to identify potential skewed data. Linearity and homoscedasticity were examined by plotting standardised residuals against standardised predicted values within scatterplots as suggested by Field (2013). Multicollinearity was assessed inspecting variance inflation factors (VIF) tolerance scores as recommended by Field (2013).

#### *2.5.2.2 Data analytic strategy for hypotheses one and two*

Pearson's correlation coefficients using bivariate correlations were produced to investigate hypotheses one and two in ascertaining if relationships between study variables were significantly correlated. The magnitudes of these relationships were evaluated using Cohen's guidelines, in which correlations ranging between .1 and .3 are considered weak, moderate above .3, and strong when equal to or superior to .5 (Cohen, Cohen, West, & Aiken, 2003).

#### *2.5.2.4 Data analytic strategy for hypothesis three*

Moderated mediation analysis was conducted using SPSS PROCESS Macro (Hayes, 2013) to determine if experiential avoidance mediated the relationship between early shaming experiences and psychological distress (i.e., depression & anxiety), whilst simultaneously testing if this mediation was moderated by self-compassion (hypothesis 3). Model 14 was selected as it enables simultaneous testing of mediation and moderation effects (Hayes & Preacher, 2013). Within the moderated mediation model, two different models were run to test for potential moderated mediation effects on depression and anxiety symptom scores. Early shaming experiences (ELES) was entered as the predictor (X), depression (DASS21-D) and anxiety symptoms (DASS21-A) as the dependent variable (Y), experiential avoidance (AAQ-II) as the mediator (M) and self-compassion (SCS-POS) as the moderator (W) of the relationship between experiential avoidance and psychological distress (i.e. depression and anxiety).

The presence of a moderated mediation is suggested to occur when the strength of an indirect effect between the mediator and the dependent variable is contingent on the level of a moderating variable, known as a conditional indirect effect (Hayes, 2013). To

test the significance of a potential moderating mediation, simple slopes computations were performed at different levels of the moderator (self-compassion) as recommended by Hayes (2013). Simple slopes analysis was performed through creating a visual representation of a potentially significant interaction effect in the relationship between experiential avoidance and self-compassion on depression and anxiety scores. Mean centred scores were produced for three levels of self-compassion (mean, +/- 1 SD) to ascertain where possible moderation(s) occurred. Therefore, self-compassion was divided into three categories based on low (1 SD below the mean), average (mean), and high (1 SD above the mean) to determine the nature of possible moderation effects.

#### *2.5.2.3 Data analytic strategy for hypothesis four*

Finally, to test hypothesis four, simple mediation models using PROCESS Macro (Model 4; Hayes, 2013) were implemented to assess if fear of self-compassion mediated the relationship between early shaming experiences and psychological distress (i.e. depression & anxiety). Early shaming experiences as measured by the ELES-Total was entered as a predictor variable (X), psychological distress as measured by the DASS21-D and DASS21-A were the outcome variables (Y), whilst fear of self-compassion as measured by the FOC-Self was entered as the mediating variable (M) within this model. As recommended by Preacher and Hayes (2008), a mediating relationship was found to be present if early shaming experiences (X) significantly predicted experiential avoidance (path *a*), as well as experiential avoidance (M) significantly predicting psychological distress (Y) (path *b*), with the indirect effect ( $a*b$ ) being significant. For the indirect effect, the mediation was calculated using a 5000 Bootstrap sampling as recommended by Hayes (2013), with 95% confidence level and Bias Corrected method (Bca). An indirect effect is considered significant if the upper and lower bound of the bias corrected confidence

interval do not cross zero (Hayes, 2013). This procedure is now recommended for testing the significance of indirect effects due to not requiring the assumption of normality for the sampling distribution of indirect effects (Hayes, 2009).



## 2.3 Results

### 2.3.1 Preliminary data analysis

Power analysis indicated that a minimum sample size of 115 participants were required to achieve sufficient statistical power (0.8) to detect a medium sized indirect effect using mediational analysis via a bootstrapping method as recommended by Fritz and MacKinnon (2007). Therefore, the current study was appraised to have sufficient statistical power to conduct mediational analysis based on such principles.

All variables were assessed for normality and indicated appropriate levels of skewness and kurtosis, with skewness values ranging between .148 and .952, as well as kurtosis values ranging between -.535 and .285. This fell within the acceptable range of +/-2 (George & Mallery, 2010), therefore, demonstrating normality of distribution. Thus, log transformations were not required (Field, 2013).

Two univariate outliers (DASS21-Anxiety) were identified that surpassed the +/- 3.29 Z-score criterion recommended by Tabachnick and Fidell (2007). Analysis was run with and without the inclusion of such outliers and no significant difference was found in the results, therefore, such outliers remained within the analysis. Furthermore, this decision was based on such outliers as being theoretically reflective of the sample of interest and were subsequently not removed as suggested by Tabachnick and Fidell (2007).

Parametric assumptions to conduct mediational analysis were met, with inspection of scatterplots and bivariate correlations indicating that linearity and homoscedascity were present. The assumption of no multicollinearity was also met, with no variables significantly correlating with each other above .80 to suggest no collinearity, with acceptable Tolerance and VIF levels all below 10 as recommended by Field (2013).

### 2.3.2 Descriptive statistics

Mean, standard deviation and bivariate correlations were produced for each variable and are presented in Table 4. A series of independent t-tests were conducted to determine if significant differences existed between students and the general population in depression and anxiety scores. Results indicated there were significant differences between students and the general population for depression scores,  $t(97.08) = -2.67$   $p = .009$ . Specifically, the general population reported higher levels of depression scores ( $M=8.28$ ,  $SD=6.61$ ) compared to the student population ( $M=6.22$ ,  $SD=5.12$ ). No significant difference was found between students and the general population for anxiety scores,  $t(118.50) = 1.48$ ,  $p = .14$ . Following this, independent t-tests found no statistically significant difference between males and females for depressive symptoms,  $t(554) = 1.51$ ,  $p = .13$ , and anxiety symptoms  $t(554) = -.573$ ,  $p = .58$ .

### 2.3.3 Hypothesis One

To explore hypotheses one, correlational analysis was performed. The results of the correlational analysis as shown in Table 4 indicated that all variables significantly correlated with each other at a  $p < .001$ , ranging from weak to strong correlations based on Cohen et al.'s (2003) guidelines. Demographic variables such as age, ethnicity and gender were not significantly related to any variables and were therefore not included in further analysis.

In line with hypothesis one, there was a strong negative correlational relationship between self-compassion and depression symptoms,  $r(556) = -.454$ ,  $p < .001$ , as well as anxiety symptoms,  $r(556) = -.283$ ,  $p < .001$ . This suggests that higher levels of self-compassion were associated with lower levels of depression and anxiety symptoms.



### **2.3.4 Hypothesis Two**

Correlational analysis was conducted for hypothesis two in exploring the relationship between experiential avoidance and psychological distress. As predicted, a strong negative association was found between self-compassion and experiential avoidance,  $r(556) = -.503, p < .001$ . This suggests that individuals who were higher in self-compassion were associated with lower levels of engagement in experiential avoidance.

Table 4

*Bivariate correlations between all variables*

	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. ELES-Total	33.78	13.59									
2. ELES- S	14.90	6.01	.927**								
3. ELES- T	11.59	6.17	.925**	.762**							
4. ELES- U	7.29	2.96	.781**	.640**	.617**						
5.SCS-POS	34.85	9.81	-.240**	-.254**	-.152**	-.269**					
6.FOC-self	16.06	12.24	.436**	.473**	.350**	.310**	-.463**				
7. AAQ-II	24.09	9.47	.567**	.604**	.451**	.441**	-.503**	.624**			
8. DASS21-D	6.52	5.41	.387**	.433**	.302**	.269**	-.454**	.604**	.698**		

9. DASS21-A	5.36	4.39	.275**	.334**	.197**	.174**	-.283**	.435**	.570**	.596**
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*Note.* M= Mean, SD= Standard Deviation, ELES-Total= Early Life Events Scale Total Score, ELES-S= Early Life Events Scale- Submissiveness Subscale, ELES-T= Early Life Events Scale- Threatened Subscale, ELES-U= Early Life Events Scale- Undervalued Subscale, SCS-POS= Self-Compassion Scale- Positive Subscale, FOC-Self= Fear of compassion: expressing kindness compassion to the self, AAQ-II= Acceptance and Action Questionnaire II, DASS21- D=Depression, Anxiety and Stress Subscale 21- Depression Subscale, DASS21- A=Depression, Anxiety and Stress Subscale 21- Anxiety Subscale,

\*\* $p < .001$

### 2.3.5 Hypothesis Three

Moderated mediation analysis was conducted using Model 14 within PROCESS (Hayes, 2013) to investigate the primary aim of the current study in ascertaining if experiential avoidance mediated the relationship between early shaming experiences and psychological distress (i.e. depression and anxiety symptoms), whilst simultaneously testing if this mediation was moderated by self-compassion. Based on none of the demographic variables being statistically significant covariates, no demographic variables were included as covariates within the analysis as recommended by Hayes (2013). Two moderated mediation models were conducted by using depression and anxiety subscale scores as dependent variables to determine if self-compassion moderated the mediating relationship on such variables of psychological distress.

Results revealed that the moderated mediation model explained 51% of the variance in depressive symptoms,  $R^2 = .51$ ,  $F(4, 551) = 143.33$ ,  $p < .001$ . As seen in Figure 4, data showed that a conditional indirect effect was evident in the association between early shaming experiences and depressive symptoms via experiential avoidance and that this relationship was moderated by self-compassion,  $b = -.0021$ ,  $SE = .0006$ , BCa 95% CI [-.0033, -.0009]. Due to the lower and upper limits of the 95% confidence interval of the conditional indirect effect not crossing zero as suggested by Hayes (2013), it was deemed that a full moderated mediation had occurred. This meant that the strength of the mediating effect of experiential avoidance on depressive symptoms was contingent on self-compassion.

Specifically, a significant interaction effect was found between experiential avoidance and self-compassion, indicating that different levels of the moderator (self-

compassion) influenced the size of the mediating effects (experiential avoidance) on depressive symptoms,  $b = -.0053$ ,  $SE = .0017$ ,  $p = .0017$ , BCa 95%, CI  $[-.0085, -.0020]$ . As such, the association between experiential avoidance and depressive symptoms was found to be moderated by self-compassion at all levels (i.e. low, average and high), therefore simple slopes analysis was performed as illustrated in Figure 5 to better understand the moderating effect as suggested by Hayes (2013).

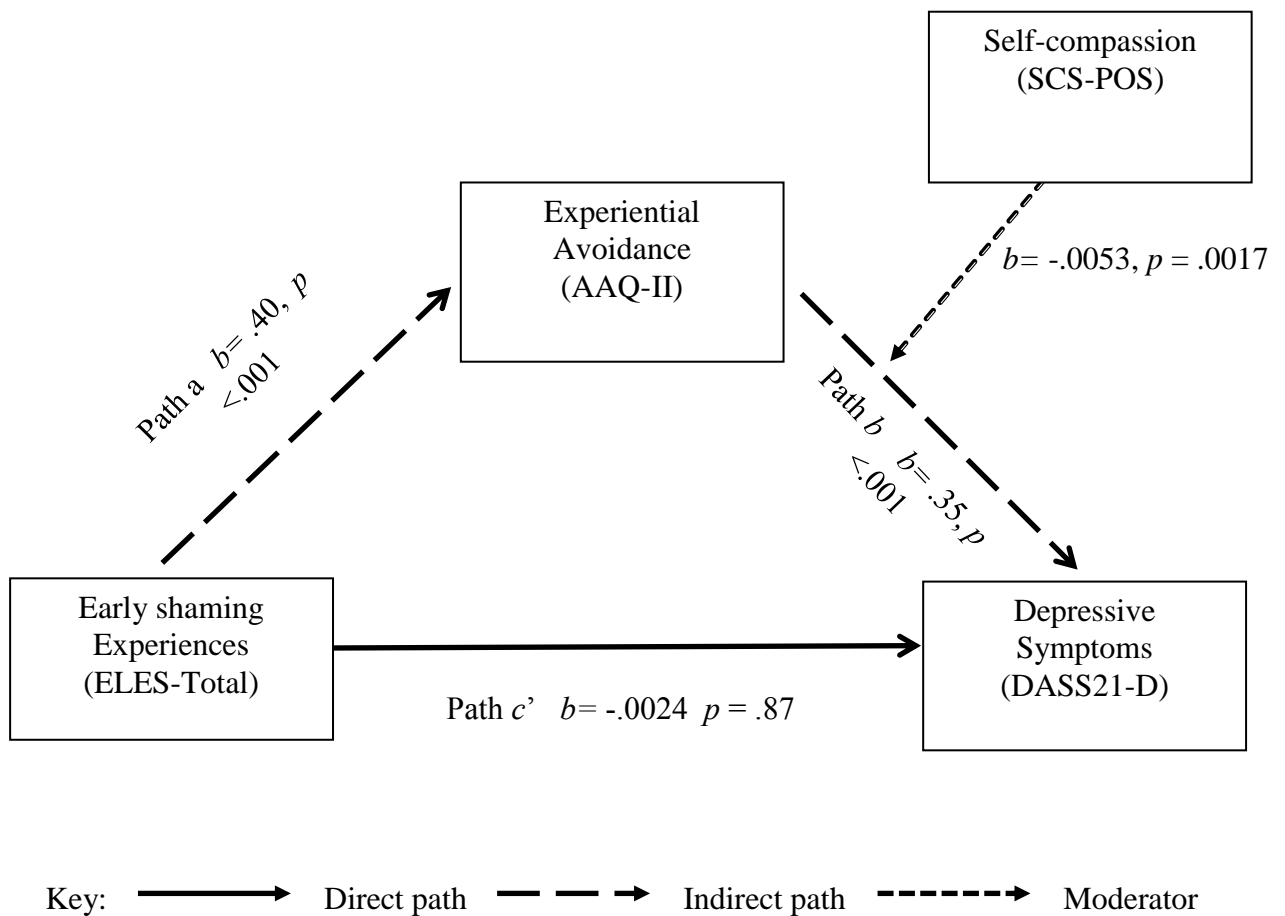


Figure 4. Moderated mediation model between experiential avoidance, self-compassion and depression symptoms

Simple slopes analysis assessed the moderating effects of self-compassion on the relationship between experiential avoidance and depressive symptoms at low (1SD below the mean), average (mean) and high (1SD above the mean) levels of self-compassion. As depicted in Figure 5, the association between experiential avoidance and depressive symptoms was found to be significantly weaker for individuals high in self-compassion ( $b = .3005, t = 10.01, p < .001, \text{BCa } 95\%, \text{CI: } .2416, .3595$ ) compared to those low in self-compassion ( $b = .4038, t = 14.91, p < .001, \text{BCa } 95\%, \text{CI: } .3506, .4570$ ). This meant that individuals high in self-compassion reported lower levels of depressive symptoms across low, medium and high experiential avoidance levels compared to individuals low in self-compassion. As a result, this supports hypothesis three that higher levels of self-compassion mitigate the effects of experiential avoidance on depression scores.

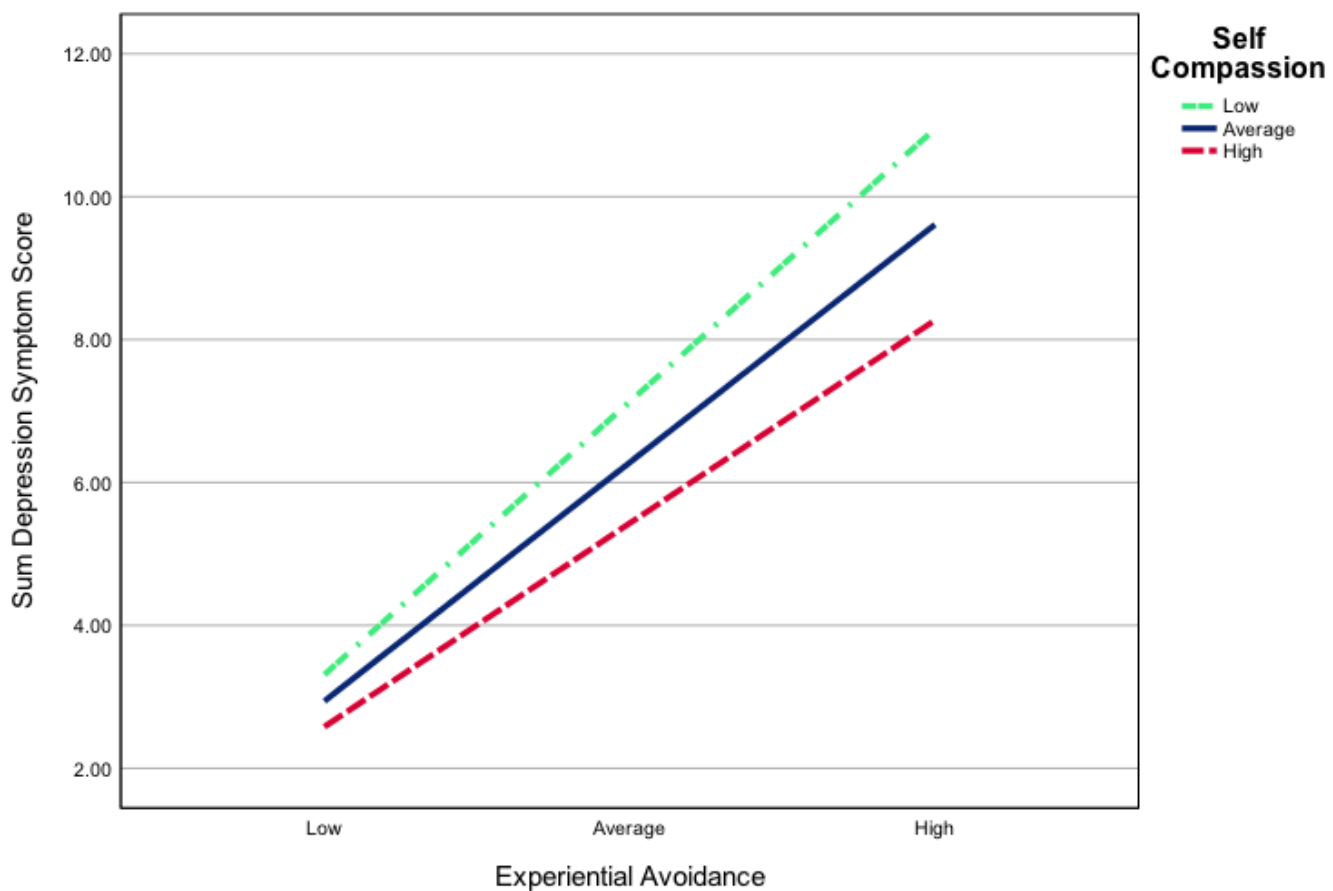


Figure 5. The moderating effect of self-compassion (SCS) on experiential avoidance (AAQ-II) and depression symptom scores (DASS21-D) scores ( $n=556$ )

As shown in Table 5, a non-significant moderated mediation was found for anxiety symptoms, due to a non-significant interaction occurring between experiential avoidance and self-compassion,  $b = -.0005$ ,  $SE = .0016$ ,  $p = .74$ , BCa 95%, CI [ -.0037, .0026]. This meant that although experiential avoidance mediated the relationship between early shaming experiences and anxiety symptoms, the strength of this relationship was not moderated by varying levels of self-compassion (i.e. low, medium and high self-compassion).

Table 5

*Moderated mediation results of self-compassion on the relationship between early shaming experiences and depression and anxiety via experiential avoidance*

DV	Effect of IV on MV (Path a)	Effect of MV on DV (Path b)	Direct Path (c' path)	M x W (moderated interaction)	Indirect effect (a x b) Bca 95% CI	$R^2$
Depression	.3952**	.3522**	-.0024	-.0053*	-.0033 -0.0009	.51
Anxiety	.3952**	.2849**	-.0234	-.0005	-.0015 .0011	.33

*Note.* DV= Dependent Variable, IV= Independent Variable (Early shaming Experiences), MV= Mediating Variable (Experiential Avoidance), W= Moderating variable (Self-compassion) Bca 95% CI= Bias-corrected 95% confidence intervals,  $R^2$  = Adjusted  $R^2$  explaining variance for DV through moderated mediation

\* $p < 0.05$

\*\* $p < 0.001$

### 2.3.6 Hypothesis Four

Multiple mediational analyses (Model 4) were conducted using PROCESS (Hayes, 2013) to explore if fear of self-compassion mediated the relationship between early shaming experiences and psychological distress. Specifically, two separate mediation models were performed entering depression (DASS21-D) and anxiety (DASS21-A) subscale scores as the dependent variable to ascertain the indirect effects of fear of self-compassion on different domains of psychological distress. Results indicated that fear of self-compassion explained 38% of the variance within depressive symptoms,  $R^2 = .38$ ,  $F(2, 553) = 172.39$ ,  $p < .001$ . As depicted in Figure 6, fear of self-compassion was shown to mediate the relationship between early shaming experiences and depression symptoms,  $b = .0931$ ,  $SE = .0111$ , BCa 95%, CI [.0724, .1162]. Due to the 95% confidence interval not crossing zero, an indirect effect was found to be present as suggested by Hayes (2013). Therefore, results showed that higher levels of early shaming experiences were associated with higher levels of depressive symptoms via the indirect effect of increased levels of fear of self-compassion.



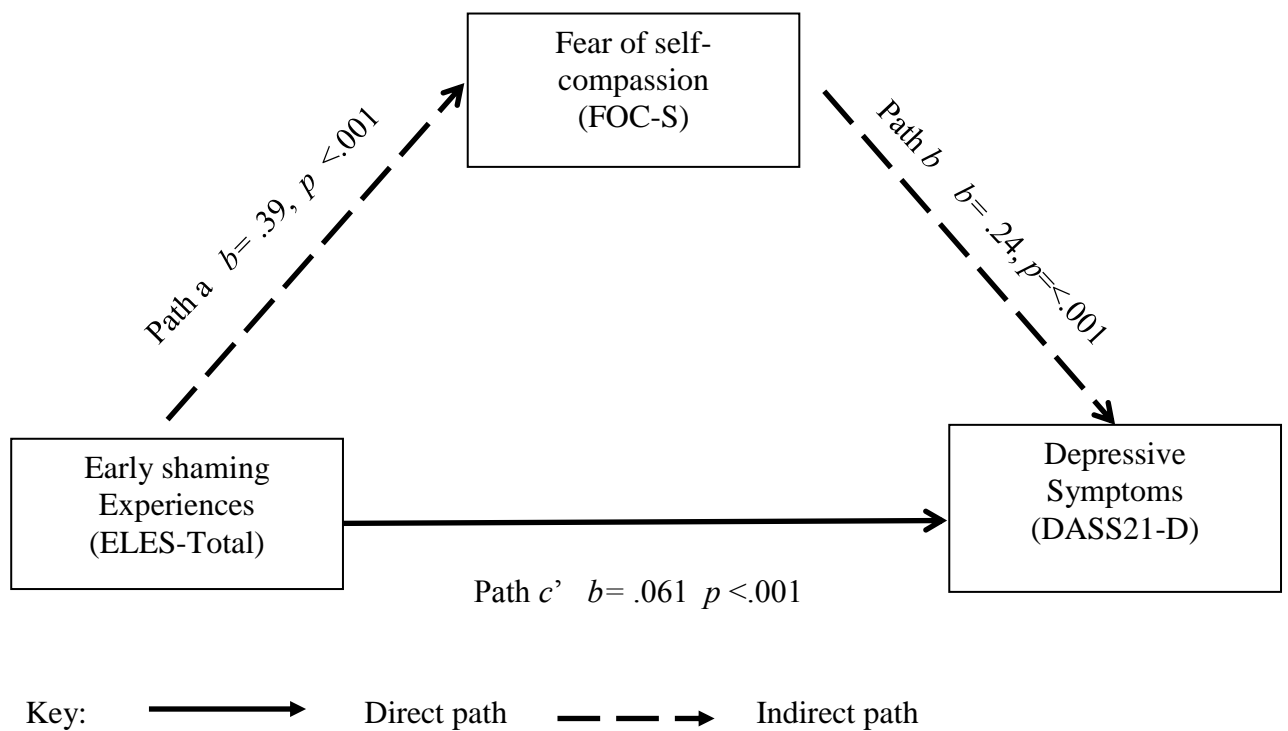


Figure 6. Mediation model between experiential avoidance, fear of self-compassion and depression symptoms

Furthermore, fear of self-compassion was also found to mediate the relationship between early shaming experiences and anxiety symptoms as shown in Figure 4,  $b = .0548$ ,  $SE = .0090$ ,  $BCa\ 95\%,\ CI\ [.0388, .0739]$ . Results indicated that fear of self-compassion explained 20% of the variance within anxiety symptoms,  $R^2 = .20$ ,  $F(2, 553) = 68.53$ ,  $p < .001$ . As depicted in Figure 7, results showed that increased experiences of early shaming experiences were associated with higher levels of anxiety symptoms, via the mediating effect of increased levels of fear of self-compassion.

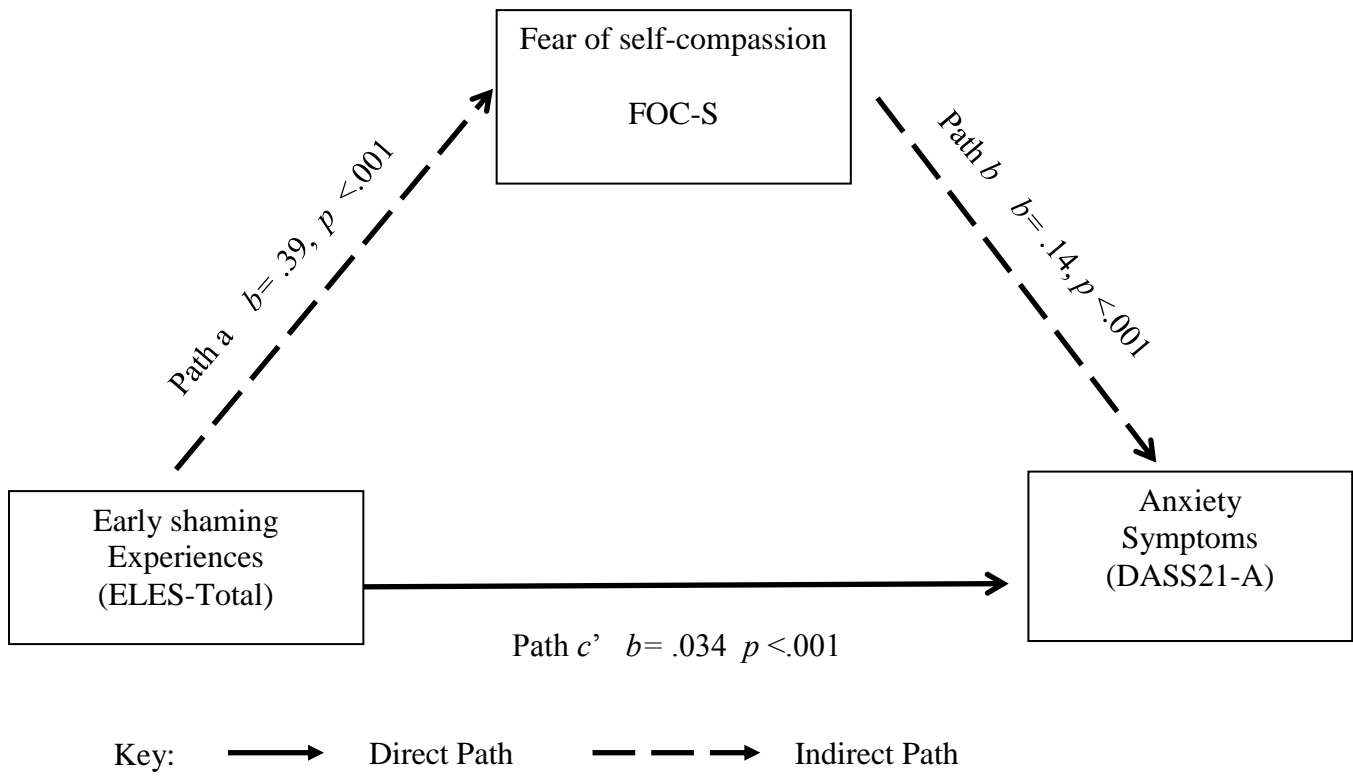


Figure 7. Mediation model between experiential avoidance, fear of self-compassion and anxiety symptoms

## 2.4 Discussion

The primary aim of the present study was to examine the relationship among early shaming experiences, experiential avoidance and psychological distress, as well as exploring how self-compassion moderates this relationship. Additionally, the current study also intended to explore the relationship between early shaming experiences and psychological distress via the mediating effects of fear of self-compassion.

Firstly, correlational relationships were in the hypothesised direction as predicted. Specifically, higher levels of self-compassion were found to be strongly associated with lower levels of depression and anxiety symptoms. Such findings align with existing literature ascertaining the inverse relationship between self-compassion and psychological distress relating to depression and anxiety symptoms (Barnard & Curry, 2011; Macbeth & Gumley, 2012). Furthermore, findings from the current study provide further empirical support for theoretical perspectives proposing that self-compassion potentially operates as an adaptive emotional regulatory mechanism in ameliorating psychological distress (Berking & Whitley, 2014). Based on this, it is suggested that self-compassion weakens the intensity of one's emotional distress by responding to negative distress with acceptance, as well as relating to the self in a warm, kind and understanding manner in such moments rather than through self-condemnation, leading to reduced levels of psychological distress (Allen & Leary, 2010; Driedrich et al., 2014).

In accordance with previous research (Carvalho et al., 2018; Marshall & Brockman, 2016) and hypothesis two, self-compassion was found to be negatively associated with experiential avoidance, with higher levels of self-compassion being associated with lower levels of experiential avoidance. The current findings suggest that individuals higher in self-compassion may feel less inclined to engage in experiential avoidance strategies. The nature of this association may be understood by self-

compassionate individuals having a different relationship with emotional distress, reflected through a higher level of acceptance of emotional distress by holding such distress in awareness with warmth and non-judgement, and therefore feeling less compelled to avoid unwanted internal experiences (Leary et al., 2007). Such conclusions are in line with previous research demonstrating that individuals higher in self-compassion engaged in reduced levels of experiential avoidance (Barnard and Curry 2011; Neff et al. 2007 ; Raes 2010). This corroborates theoretical suggestions that self-compassion and experiential avoidance are embedded within different emotional regulatory systems in response to emotional distress (Neff et al., 2007). Indeed, experiential avoidance approaches negative emotions from a position of threat leading to avoidance, whilst self-compassion promotes contact with such emotions through viewing negative emotions as part of human experience (Diedrich et al., 2014; Neff et al., 2007).

For example, by being compassionate towards the self, emotional distress is responded to with sensitivity, warmth, empathy and from a position of non-judgement that enables an acceptance of suffering, rather than avoiding it, accompanied with a motivation to alleviate such suffering with warmth and kindness (Gilbert, 2009). In line with this, self-compassion creates a context for less-symptom focused rumination by not over-identifying with negative emotions, as well as approaching emotional distress with acceptance (Driedrich et al., 2014). In contrast to this, experiential avoidance is immersed in cognitive and behavioural avoidance strategies through an unacceptance of negative distress and an intense desire to avoid it (Hayes et al., 1999; Krieger et al., 2013, Raes 2010).

In line with the primary aim of the current study, the moderated mediation model showed that experiential avoidance mediated the relationship between early shaming experiences and depression symptoms, whilst self-compassion moderated this relationship as hypothesised. The nature of this relationship was shown to be fully mediated by

experiential avoidance, with no direct effect being found between early shaming experiences and depressive symptoms, when entering experiential avoidance as the mediator. This suggests that an increase in depressive symptoms was not predicted directly by early shaming experiences, yet rather through the mediating effect of experiential avoidance. As a result, this therefore indicated that experiential avoidance was found to fully explain the association between early shaming experiences and depressive symptoms. Thus, the data illustrated that higher levels of early shaming experiences characterised by criticism, being devalued and feeling threatened resulted in higher levels of depression symptoms via increased levels of experiential avoidance. This finding is consistent with existing literature postulating that experiential avoidance plays a key role in the relationship between early shaming experiences and depressive symptoms (Carvalho et al., 2015; Dinis et al., 2015). Specifically, the current study's results provide further support for theoretical suggestions that the absence of positive affiliative experiences with parents leads to increased vulnerability of the underdevelopment of emotional regulatory skills (Gottman, Katz & Hooven, 1996; Matos & Pinto-Gouveia, 2013; Thompson & Goodman, 2010). Such experiences are said to influence physiological systems linked to adaptive emotional regulatory responses (Schoore, 1998), through the development of an oversensitive threat system linked to negative affect and mental health difficulties (Dickerson, Gruenewald & Kemeny, 2004; Gilbert, 2005), coupled with limited self-soothing abilities to regulate this due to an underdeveloped soothing system (Gilbert, 2005).

Furthermore, the present study's findings suggest that early shaming experiences lead individuals to experience an intense unwillingness to experience negative emotions and attempt to reduce the intensity, frequency or duration of such emotions, in the form of experiential avoidance (Hayes et al., 1999). This is consistent with previous research

connecting shame with increased engagement in experiential avoidance processes such as rumination, thought suppression and dissociation (Cheung, Gilbert, & Irons, 2004; Irwin, 1998; Talbot, Talbot, & Xin Tu, 2004). According to the psychological flexibility model embedded within Acceptance and Commitment Therapy (ACT; Hayes et al., 1999), experiential avoidance is an influential psychological process associated with increased vulnerability to depressive symptoms (Hayes, Luoma, Bond, Masuda & Lillis et al., 2006). The current findings were in accordance with such theoretical perspectives, with attempts to relieve psychological distress through experiential avoidance, in fact being found to have the paradoxical effect, through amplifying levels of distress (Campbell-Sills et al., 2006) and intensifying psychological distress (Hayes et al., 2006).

In accordance with the main aim of the study, it was found that self-compassion moderated the mediating relationship between experiential avoidance and depression symptoms. To the researcher's knowledge, this was the first study to explore how the impact of psychological processes such as experiential avoidance on depressive symptoms may be contingent on the level of self-compassion one holds towards the self, following early shaming experiences. Indeed, it was found that self-compassion attenuated the effects of experiential avoidance on depressive symptoms for individuals high in self-compassion. More specifically, results showed that when considering individuals at the same level of experiential avoidance, those who were high in self-compassion reported lower levels of depressive symptoms compared to individuals low in self-compassion. This was evident across low, average and high experiential avoidance categories. This indicates that self-compassion may act as a protective factor (Cohn, Fredrickson, Brown, Mikels & Conway, 2009; Neff, 2009) that mitigates the influence of experiential avoidance leading to reduced depressive symptoms.

Therefore, while early shaming experiences are likely to trigger a response in the threat system (Dickerson, Gruenewald & Kemeny, 2004; Gilbert, 2009; Perry et al., 1995) leading to defense-based behaviours in the form of experiential avoidance to avoid such emotions (i.e. shame). This process may in fact be dependent on level of self-compassion one holds, with higher levels of self-compassion potentially ameliorating such distress (Gilbert, 2005; Macbeth & Gumley, 2012). In line with this, self-compassion may disrupt engagement in experiential avoidance and how distress is responded to (Leary et al., 2007). For example, self-compassionate individuals are more inclined to respond to their distress with kindness and understanding and are less likely to suppress unwanted thoughts and negative emotions, as well as criticise the self (Leary, Tate, Adams, Allen, & Hancock, 2007).

The nature of this relationship may be explained by the tripartite model of affective regulation through self-compassion stimulating the soothing system (Gilbert, 2005, 2009). According to theorists, self-compassionate orientated behaviours such as displaying warmth, kindness and understanding towards the self are embedded within the soothing system that stimulate neurophysiological responses via the parasympathetic nervous system through the release of oxytocin leading to the downregulation of threat response (Porges 2007, Gilbert, 2014). Through this process, it is suggested that self-compassion alleviates emotional suffering by deactivating the threat system associated with self-criticism and shame, whilst activating the self-soothing system, affiliated with feelings of contentment, interconnectedness and safeness (Gilbert & Irons, 2005). This enables the promotion of emotional balance and reduces the intensity of overwhelming emotions (Gilbert, 2014).

Gilbert and Proctor (2006) suggest that individuals higher within self-compassion may have more developed and accessible soothing systems that enables them to

downregulate threat. Therefore, it can be argued that individuals with high levels of self-compassion within the current study may have more developed and accessible soothing systems that tone down negative affect stimulated by the threat system, leading to reduced levels of depressive symptoms. The activation of the threat system is linked to threat-based behaviours such as experiential avoidance (Carvalho et al., 2015), therefore the soothing system deactivates this process and soothes such distress with affiliative emotions linked to increased well-being (Neff, 2007). As such, individuals high in self-compassion may in fact have more capacity to buffer the pervasive influence of experiential avoidance through warmth and kindness leading to less depressive symptoms. This is consistent with previous research demonstrating the buffering effects of self-compassion in relation to depression symptoms within a large sample within the general population (Korner et al., 2015).

Interestingly, results indicated that even at low levels of experiential avoidance, individuals high in self-compassion reported lower levels of depression symptoms compared to those low in self-compassion. Within the ACT literature, individuals low in experiential avoidance are described as having psychological flexibility (Hayes et al., 1999), a process linked to connecting with the present moment and being more willing and accepting to be in contact with unpleasant internal experiences rather than trying to control them in order to move towards their values. Psychological flexibility has been linked to higher levels of psychological well-being (Bond et al., 2011). Despite being different psychological processes, theoretical literature has suggested that psychological flexibility and self-compassion overlap to some degree (Tirch & Neff, 2013). Although, both self-compassion and psychological flexibility are based on acceptance of emotional distress (Gilbert, 2009; Hayes et al., 1999), the current findings suggest that self-compassion may offer additional distinctive protective features to ameliorate psychological distress beyond psychological flexibility.



Despite self-compassion being found to moderate the indirect effects of experiential avoidance on depression symptoms, this was not applicable for anxiety symptoms. Such findings may be understood through psychological processes underlying self-compassion being more closely related to ameliorating depressive symptoms, than anxiety symptoms. Within Neff's (2003) definition of self-compassion, negative counterparts such as self-judgement and over-identification are closely related to psychological processes of self-criticism and rumination (Wadsworth et al., 2018). Robust findings have shown that self-criticism (Blatt, 2004; Gilbert, Baldwin, Irons, Baccus & Palmer, 2006) and rumination (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008) are processes strongly associated with precipitating and perpetuating depression.

Empirical evidence has found that higher levels of self-compassion are negatively associated with rumination (Neff, 2003a; Neff & Vonk, 2009; Raes, 2010) and self-criticism (Irons et al., 2006) leading to reduced levels of depression (Zhang et al., 2019). Theoretical perspectives have proposed that self-compassion may alleviate symptoms of depression by interfering with maladaptive cognitive processes like rumination (Leary et al. 2007; Wadsworth et al., 2018). Leary et al. (2007) proposed that compassionate individuals may experience less depressive affect due to ruminating less about the consequence of negative events. Self-compassionate individuals may not over-identify with their emotional distress and rather validate the importance of such negative emotions (Diedrich et al., 2014). Additionally, it is proposed that self-compassionate individuals may have lower levels of depression symptoms due to observing one's failures objectively, responding with warmth and understanding, as opposed to through harsh self-criticism and appraising such failures as reflective of flaws within their personal identity (Finlay-Jones, Rees, & Kane, 2015; Leary et al., 2007). As such, self-compassion may more closely relate

to protecting and attenuating behaviours associated with depression (Dundas et al., 2016), rather than anxiety.

Previous research has identified that while self-compassion has protective features (Neff, 2003), some individuals can become fearful of self-compassion and perceive it as aversive (Gilbert et al., 2011). In accordance with this, as hypothesised, fear of self-compassion was found to mediate the relationship between early shaming experiences and psychological distress. Firstly, this is consistent with previous research which found that fear of self-compassion is linked to increased vulnerability to mental health difficulties (Gilbert et al., 2011). Additionally, such findings indicate that fear of self-compassion may be an underlying psychological process that explains the relationship between early shaming experiences and psychological distress. The nature of this relationship may be understood through early shaming experiences presenting a threat to the self and social identity (Matos & Pinto-Gouveia, 2010) through the development of self-schemas of the self as inferior, worthless and flawed and undeserving of care and receiving affection (Matos & Pinto-Gouveia, 2014). As such, prior research has shown that these experiences may be stored as emotionally conditioned memories associated with negative states (e.g. shame, sadness) within the attachment system, closely linked to the soothing system (Gilbert & Irons, 2009).

In accordance with previous research (Gilbert et al., 2011; Matos & Pinto-Gouveia, 2010, 2014), the current findings suggest that early shaming experiences may become stored as emotionally conditioned memories associated with feelings of sadness, loneliness and grief due to not receiving positive affiliative experiences of warmth and safeness that were desired (Gilbert, 2009; Liotti, 2004). Therefore, due to the painful nature of such memories, the attachment system ‘shuts down’ through the absence of positive affiliative memories that aid self-soothing through stimulating feelings of warmth and connectedness

to soothe the self in later moments of distress (Gilbert et al., 2011). As a consequence, affiliative actions like self-compassion are appraised as threatening due to activating the attachment system, where such memories are stored (Gilbert et al., 2011; Lee & James, 2012).

In line with this, individuals who have experienced early shaming experiences may therefore perceive self-compassion as aversive and threatening due to fears of reactivating conditioned emotional memories of early shaming experiences. Thus, the reactivation of such memories may lead to eliciting the same feelings of shame or threat associated with early shaming experiences and subsequent feelings of sadness, loneliness and grief due to a compromised and underdeveloped soothing system (Silva et al., 2019). Therefore, the continual fear of extending compassion towards the self increases vulnerability to mental health difficulties, due to the under-stimulation of the powerful regulating effects that self-compassion plays through self-nurturing and soothing abilities that ultimately protect against psychopathology symptoms, such as depression (Matos, Pinto-Gouveia, & Duarte, 2013, 2015; Richter, Gilbert, & McEwan, 2009; Schore, 2001).

#### **2.4.1 Clinical implications**

The findings of the current study offer a range of important clinical implications. Firstly, as well as further supporting previous empirical research regarding the relationship between shame and depressive symptoms (Gilbert, 2003; Carvalho et al., 2015), the present study highlights psychological processes underpinning this relationship. Specifically, the current study identifies the influential role that trans-diagnostic processes such as shame (Gilbert, 1998) and experiential avoidance (Hayes et al., 1999) play in the development of psychological distress, as well as how self-compassion mitigates such

distress. This provides further support for the protective role of self-compassion in non-clinical samples (Ehret et al., 2015; Joeng & Turner, 2015).

Furthermore, although this study was not performed with a clinical sample, the findings suggest that psychological interventions aimed at targeting processes that reduce experiential avoidance and promote self-compassion are likely to alleviate depressive symptoms for individuals who have experienced early shaming experiences. Such findings are in line with third waved cognitive behavioural therapies such as compassion-focused therapy (CFT; Gilbert, 2010) that targets shame through cultivating self-compassion. As well as Acceptance and Commitment Therapy (ACT; Hayes et al., 1999) aiming to reduce experiential avoidance through the acceptance of unwanted psychological/ emotional distress in pursuit of living consistently with personal values (Hayes et al., 2012). Such interventions would be appropriate, with Neff and Tirsch (2013) suggesting that ACT and CFT overlap through both working towards an acceptance of negative emotions, rather than trying to alter or avoid them. Additionally, the present study also highlights the unique benefits of increased levels of self-compassion beyond psychological flexibility. This suggests that incorporating self-compassion techniques into acceptance-based interventions that focus on reducing experiential avoidance may have additional benefits in reducing depressive symptoms. Additionally, while the current study highlights the protective features of self-compassion in alleviating psychological distress (Trompetter et al., 2017), it also illustrates the negative role that fear of self-compassion plays in increasing vulnerability to mental health difficulties following shaming experiences. This offers important clinical implications in illustrating the impact of psychological processes such as fear of self-compassion in potentially obstructing progress within psychological interventions unless addressed as suggested by Gilbert et al. (2014).

## 2.4.2 Limitations and future research

Whilst the current study presents encouraging preliminary findings relating to the buffering role of self-compassion in the relationship between experiential avoidance and depressive symptoms, several limitations must be acknowledged. Firstly, due to the cross-sectional design of the present study, this prevents causal inferences being made about the temporal sequence of the relationship between self-compassion, experiential avoidance and psychological distress. Future studies implementing a longitudinal design could be conducted to ascertain the causal processes within the mediation and moderation relationships.

Additionally, the use of only self-report measures poses the risk of potential social desirability effects. Moreover, within the early life events scale (ELES), participants were asked to think back to memories within their childhood relating to experiences of submissiveness, feeling threatened and undervalued. In doing this, it is possible that a selection of memories could have occurred, where more pertinent early shaming memories were not recalled. Therefore, future research may benefit from doing this using a structured interview format to allow a more accurate exploration of early shame experiences. In line with this, the current study only investigated early shaming experiences generally, rather than exploring how the moderating effects of self-compassion worked at different levels of shaming experiences. For example, future research may explore if self-compassion buffers the effects of experiential avoidance at all different severity levels (i.e. low, medium & high) of shaming experiences.

Within the current study, the ELES (Gilbert et al., 2003) was used to measure early shaming experiences. The ELES focuses on explicit forms of shaming experiences relating to early childhood interactions with parents that consists of subordinate behaviours and

feeling frightened due to experiencing threats, punishments and aggression from parents. However, subtler forms of early shaming experiences (i.e., put down experiences, criticism) may not have been captured by this measurement, due to focusing on more direct forms through aggression and punishments. Therefore, a measurement instrument that embodies a broad spectrum of shaming experiences may have been more appropriate in the current study, with the opportunity to explore the impact of a range of shaming experiences.

In accordance with this, future studies may employ a more in-depth assessment method, such as the shame experience interview (SEI; Matos & Pinto-Gouveia, 2006). This captures an array of shaming experiences, alongside exploring the influence of shaming acts committed by a range of different individuals (i.e. peers, teachers, strangers), rather than focusing purely on shaming experiences involving parents as measured within the ELES. As such, increasing evidence has shown that early shaming experiences with figures other than parents (e.g. teachers, peers) are also influential in the development of psychological distress (Cunha et al., 2017; Matos & Pinto-Gouveia, 2014), thus, further exploration of this is required.

Additionally, the current study focused purely on self-compassion as operating as a buffer against psychological distress (i.e., depression and anxiety symptoms). However, there has been a recent growth within positive psychology research interested in the development of positive mental health, thus, looking beyond a purely deficit-based model concerning the absence of mental health symptoms (i.e., depression, anxiety; Lamers, Westerhof, Glas & Bohlmeijer, 2015). Rather, empirical literature proposes that mental health is encapsulated within the presence of both positive and negative affect (Kahl, Winter & Schweiger, 2012). As such, research literature has proposed that mental health is captured within a two-factor model (Keyes, 2005). This is represented by the presence of

both positive mental health (i.e., social, emotional and psychological well-being), as well as the absence of mental health symptomatology. Therefore, exploring how self-compassion may also increase individuals' life satisfaction and subjective well-being, in addition to mental health symptom reduction following early shaming experiences may be an important aspect for future research. This is an approach in line with the Recovery Model of mental health care (Charney & Marx, 2012).

Despite recruiting a large sample size, the sample consisted predominately of female undergraduate students (85%) limiting the generalisability of the current findings to other populations. As such, large proportion of individuals were recruited from the student population via an online psychology university research participant system, which may have limited potential recruitment of male participants, due to females predominately enrolling in psychology based courses. Further attempts were made to recruit participants via social media (e.g. Facebook, Twitter), although this was with limited success. The heterogeneous nature of the sample means it remains unclear if the protective nature of self-compassion against psychological processes such as experiential avoidance on psychological distress applies to other populations. For example, the present study was based on a non-clinical sample. Therefore, future research should investigate if self-compassion has the same ameliorating effects on the relationship between experiential avoidance and depression symptoms within a clinical population. Investigating if such psychological processes apply to clinical populations offers important clinical implications for therapeutic interventions.

### **2.4.3 Conclusion**

The relationship between the role of early shaming experiences and depression symptoms is well established (Gilbert, 1998), with emerging evidence indicating that

experiential avoidance mediates this relationship (Carvalho et al., 2015; Dinis et al., 2015). Findings from the current study present preliminary support for self-compassion playing an influential role in attenuating the effects of experiential avoidance on depression symptoms following early shaming experiences. Furthermore, the present study illustrates how fears of compassion may present as a block to reducing psychological distress and this is an important factor to consider in psychological interventions. Overall, such findings present important clinical implications in illustrating the role of self-compassion in mitigating the effects of psychological processes linked to depressive symptoms such as experiential avoidance. Ultimately, this indicates that self-compassion is a key process that can promote the reduction of depressive symptom and is important to develop in psychological intervention.



## Appendices

### Appendix A- Quality check protocol (Kmet et al., 2004)

# **STANDARD QUALITY ASSESSMENT CRITERIA for Evaluating Primary Research Papers from a Variety of Fields**

Prepared by:

Leanne M. Kmet, M.Sc.,

Robert C. Lee, M.Sc.

and

Linda S. Cook, Ph.D.





## Appendix A: Manual for Quality Scoring of Quantitative Studies

### Definitions and Instructions for Quality Assessment Scoring

#### How to calculate the summary score

- **Total sum** = (number of “yes” \* 2) + (number of “partials” \* 1)
- **Total possible sum** = 28 – (number of “N/A” \* 2)
- **Summary score**: total sum / total possible sum

#### Quality assessment

##### 1. Question or objective sufficiently described?

**Yes:** Is easily identified in the introductory section (or first paragraph of methods section). Specifies (where applicable, depending on study design) all of the following: purpose, subjects/target population, and the specific intervention(s) /association(s)/descriptive parameter(s) under investigation. A study purpose that only becomes apparent after studying other parts of the paper is not considered sufficiently described.

**Partial:** Vaguely/incompletely reported (e.g. “describe the effect of” or “examine the role of” or “assess opinion on many issues” or “explore the general attitudes” ...); or some information has to be gathered from parts of the paper other than the introduction/background/objective section.

**No:** Question or objective is not reported, or is incomprehensible.

**N/A:** Should not be checked for this question.

##### 2. Design evident and appropriate to answer study question?

(If the study question is not given, infer from the conclusions).

**Yes:** Design is easily identified and is appropriate to address the study question / objective.

**Partial:** Design and /or study question not clearly identified, but gross inappropriateness is not evident; or design is easily identified but only partially addresses the study question.

**No:** Design used does not answer study question (e.g., a comparison group is required to answer the study question, but none was used); or design cannot be identified.

**N/A:** Should not be checked for this question.

3. *Method of subject selection (and comparison group selection, if applicable) or source of information/input variables (e.g., for decision analysis) is described and appropriate.*

**Yes:** Described and appropriate. Selection strategy designed (i.e., consider sampling frame and strategy) to obtain an unbiased sample of the relevant target population or the entire target population of interest (e.g., consecutive patients for clinical trials, population-based random sample for case-control studies or surveys). Where applicable, inclusion/exclusion criteria are described and defined (e.g., “cancer” -- ICD code or equivalent should be provided). Studies of volunteers: methods and setting of recruitment reported. Surveys: sampling frame/strategy clearly described and appropriate.

**Partial:** Selection methods (and inclusion/exclusion criteria, where applicable) are not completely described, but no obvious inappropriateness. Or selection strategy is not ideal (i.e., likely introduced bias) but did not likely seriously distort the results (e.g., telephone survey sampled from listed phone numbers only; hospital based case-control study identified all cases admitted during the study period, but recruited controls admitted during the day/evening only). Any study describing participants only as “volunteers” or “healthy volunteers”. Surveys: target population mentioned but sampling strategy unclear.

**No:** No information provided. Or obviously inappropriate selection procedures (e.g., inappropriate comparison group if intervention in women is compared to intervention in men). Or presence of selection bias which likely seriously distorted the results (e.g., obvious selection on “exposure” in a case-control study).

**N/A:** Descriptive case series/reports.

4. *Subject (and comparison group, if applicable) characteristics or input variables/information (e.g., for decision analyses) sufficiently described?*

**Yes:** Sufficient relevant baseline/demographic information clearly characterizing the participants is provided (or reference to previously published baseline data is provided). Where applicable, reproducible criteria used to describe/categorize the participants are clearly defined (e.g., ever-smokers, depression scores, systolic blood pressure > 140). If “healthy volunteers” are used, age and sex must be reported (at minimum). Decision analyses: baseline estimates for input variables are clearly specified.

**Partial:** Poorly defined criteria (e.g. “hypertension”, “healthy volunteers”, “smoking”). Or incomplete relevant baseline / demographic information (e.g., information on likely confounders not reported). Decision analyses: incomplete reporting of baseline estimates for input variables.

**No:** No baseline / demographic information provided.  
Decision analyses: baseline estimates of input variables not given.

**N/A:** Should not be checked for this question.

5. *If random allocation to treatment group was possible, is it described?*
- Yes:** True randomization done - requires a description of the method used (e.g., use of random numbers).
- Partial:** Randomization mentioned, but method is not (i.e. it may have been possible that randomization was not true).
- No:** Random allocation not mentioned although it would have been feasible and appropriate (and was possibly done).
- N/A:** Observational analytic studies. Uncontrolled experimental studies. Surveys. Descriptive case series / reports. Decision analyses.
6. *If interventional and blinding of investigators to intervention was possible, is it reported?*
- Yes:** Blinding reported.
- Partial:** Blinding reported but it is not clear who was blinded.
- No:** Blinding would have been possible (and was possibly done) but is not reported.
- N/A:** Observational analytic studies. Uncontrolled experimental studies. Surveys. Descriptive case series / reports. Decision analyses.
7. *If interventional and blinding of subjects to intervention was possible, is it reported?*
- Yes:** Blinding reported.
- Partial:** Blinding reported but it is not clear who was blinded.
- No:** Blinding would have been possible (and was possibly done) but is not reported.
- N/A:** Observational studies. Uncontrolled experimental studies. Surveys. Descriptive case series / reports.
8. *Outcome and (if applicable) exposure measure(s) well defined and robust to measurement / misclassification bias?*  
*Means of assessment reported?*
- Yes:** Defined (or reference to complete definitions is provided) and measured according to reproducible, "objective" criteria (e.g., death, test completion – yes/no, clinical scores). Little or minimal potential for measurement / misclassification errors. *Surveys:* clear description (or reference to clear description) of questionnaire/interview content and response options. *Decision analyses:* sources of uncertainty are defined for all input variables.
- Partial:** Definition of measures leaves room for subjectivity, or not sure (i.e., not reported in detail, but probably acceptable). Or precise definition(s) are missing, but no evidence or problems in the paper that would lead one to assume major problems. Or instrument/ mode of assessment(s) not reported. Or misclassification errors may have occurred, but they did not likely seriously distort the results (e.g., slight difficulty with recall of long-ago events; exposure is measured only at baseline in a long cohort study). *Surveys:* description of

questionnaire/interview content incomplete; response options unclear. Decision analyses: sources of uncertainty are defined only for some input variables.

**No:** Measures not defined, or are inconsistent throughout the paper. Or measures employ only ill-defined, subjective assessments, e.g. "anxiety" or "pain." Or obvious misclassification errors/measurement bias likely seriously distorted the results (e.g., a prospective cohort relies on self-reported outcomes among the "unexposed" but requires clinical assessment of the "exposed"). Surveys: no description of questionnaire/interview content or response options. Decision analyses: sources of uncertainty are not defined for input variables.

**N/A:** Descriptive case series / reports.

9. *Sample size appropriate?*

**Yes:** Seems reasonable with respect to the outcome under study and the study design. When statistically significant results are achieved for major outcomes, appropriate sample size can usually be assumed, unless large standard errors ( $SE > \frac{1}{2}$  effect size) and/or problems with multiple testing are evident. Decision analyses: size of modeled cohort / number of iterations specified and justified.

**Partial:** Insufficient data to assess sample size (e.g., sample seems "small" and there is no mention of power/sample size/effect size of interest and/or variance estimates aren't provided). Or some statistically significant results with standard errors  $> \frac{1}{2}$  effect size (i.e., imprecise results). Or some statistically significant results in the absence of variance estimates. Decision analyses: incomplete description or justification of size of modeled cohort / number of iterations.

**No:** Obviously inadequate (e.g., statistically non-significant results and standard errors  $> \frac{1}{2}$  effect size; or standard deviations  $> \frac{1}{2}$  of effect size; or statistically non-significant results with no variance estimates and obviously inadequate sample size). Decision analyses: size of modeled cohort / number of iterations not specified.

**N/A:** Most surveys (except surveys comparing responses between groups or change over time). Descriptive case series / reports.

10. *Analysis described and appropriate?*

**Yes:** Analytic methods are described (e.g. "chi square"/ "t-tests"/"Kaplan-Meier with log rank tests", etc.) and appropriate.

**Partial:** Analytic methods are not reported and have to be guessed at, but are probably appropriate. Or minor flaws or some tests appropriate, some not (e.g., parametric tests used, but unsure whether appropriate; control group exists but is not used for statistical analysis). Or multiple testing problems not addressed.

**No:** Analysis methods not described and cannot be determined. Or obviously inappropriate analysis methods (e.g., chi-square tests for continuous data, SE given where normality is highly unlikely, etc.). Or a study with a descriptive goal / objective is over-analyzed.

**N/A:** Descriptive case series / reports.

11. *Some estimate of variance (e.g., confidence intervals, standard errors) is reported for the main results/outcomes (i.e., those directly addressing the study question/objective upon which the conclusions are based)?*

**Yes:** Appropriate variance estimate(s) is/are provided (e.g., range, distribution, confidence intervals, etc.). Decision analyses: sensitivity analysis includes all variables in the model.

**Partial:** Undefined “+/-” expressions. Or no specific data given, but insufficient power acknowledged as a problem. Or variance estimates not provided for all main results/outcomes. Or inappropriate variance estimates (e.g., a study examining change over time provides a variance around the parameter of interest at “time 1” or “time 2”, but does not provide an estimate of the variance around the difference). Decision analyses: sensitivity analysis is limited, including only some variables in the model.

**No:** No information regarding uncertainty of the estimates. Decision analyses: No sensitivity analysis.

**N/A:** Descriptive case series / reports. Descriptive surveys collecting information using open-ended questions.

12. *Controlled for confounding?*

**Yes:** Randomized study, with comparability of baseline characteristics reported (or non-comparability controlled for in the analysis). Or appropriate control at the design or analysis stage (e.g., matching, subgroup analysis, multivariate models, etc). Decision analyses: dependencies between variables fully accounted for (e.g., joint variables are considered).

**Partial:** Incomplete control of confounding. Or control of confounding reportedly done but not completely described. Or randomized study without report of comparability of baseline characteristics. Or confounding not considered, but not likely to have seriously distorted the results. Decision analyses: incomplete consideration of dependencies between variables.

**No:** Confounding not considered, and may have seriously distorted the results. Decision analyses: dependencies between variables not considered.

**N/A:** Cross-sectional surveys of a single group (i.e., surveys examining change over time or surveys comparing different groups should address the potential for confounding). Descriptive studies. Studies explicitly stating the analysis is strictly descriptive/exploratory in nature.

13. *Results reported in sufficient detail?*

**Yes:** Results include major outcomes and all mentioned secondary outcomes.

**Partial:** Quantitative results reported only for some outcomes. Or difficult to assess as study question/objective not fully described (and is not made clear in the methods section), but results seem appropriate.

**No:** Quantitative results are reported for a subsample only, or “n” changes continually across the denominator (e.g., reported proportions do not account for the entire study sample, but are reported only for those with complete data – i.e., the category of “unknown” is not used where needed). Or results for some major or mentioned secondary outcomes are only qualitatively reported when quantitative reporting would have been possible (e.g., results include vague comments such as “more likely” without quantitative report of actual numbers).

**N/A:** Should not be checked for this question.

14. Do the results support the conclusions?

**Yes:** All the conclusions are supported by the data (even if analysis was inappropriate). Conclusions are based on all results relevant to the study question, negative as well as positive ones (e.g., they aren't based on the sole significant finding while ignoring the negative results). Part of the conclusions may expand beyond the results, if made in addition to rather than instead of those strictly supported by data, and if including indicators of their interpretative nature (e.g., “suggesting,” “possibly”).

**Partial:** Some of the major conclusions are supported by the data, some are not. Or speculative interpretations are not indicated as such. Or low (or unreported) response rates call into question the validity of generalizing the results to the target population of interest (i.e., the population defined by the sampling frame/strategy).

**No:** None or a very small minority of the major conclusions are supported by the data. Or negative findings clearly due to low power are reported as definitive evidence against the alternate hypothesis. Or conclusions are missing. Or extremely low response rates invalidate generalizing the results to the target population of interest (i.e., the population defined by the sampling frame/strategy).

**N/A:** Should not be checked for this question.







## Appendix B- Scoring

First author	Scoring criteria														Total score
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1. Brown, et al. (2015).	1	2	2	2	N/A	N/A	N/A	1	1	2	2	N/A	1	2	.80
2. Brown, et al. (2016).	1	2	2	2	N/A	N/A	N/A	1	2	2	2	N/A	1	2	.85
3. Choo, P. Y., & Marszalek, J. M. (2018)	1	2	2	2	N/A	N/A	N/A	2	2	2	2	N/A	2	2	.95
4. Ferguson, et al. (2015).	1	2	1	2	N/A	N/A	N/A	2	1	1	2	N/A	2	1	.75
5. Fong et al. (2016).	2	1	1	2	N/A	N/A	N/A	2	2	2	2	2	2	2	.80
6. Gunnell, et al. (2017).	2	2	2	2	N/A	N/A	N/A	2	1	2	2	N/A	1	2	.90

7. Jeon, et al. (2016)	1	2	1	1	N/A	N/A	N/A	1	1	1	2	N/A	2	1	.65
8. López, et al. (2018)	2	2	1	2	N/A	N/A	N/A	1	1	1	0	N/A	2	1	.65
9. Neff et al. (2018).	2	2	1	1	N/A	N/A	N/A	1	1	1	2	N/A	1	2	.75
10. Phillips (2018).	2	1	1	1	N/A	N/A	N/A	1	1	2	2	N/A	2	1	.65
11. Shin et al. (2018)	2	2	1	1	N/A	N/A	N/A	2	2	2	0	N/A	2	1	.80
12. Tarber et al. (2016).	2	2	2	2	N/A	N/A	N/A	1	1	2	2	N/A	1	2	.90
13. Toplu- Demirtaş et al. (2018).	2	2	1	1	N/A	N/A	N/A	1	1	2	2	N/A	2	2	.80
14. Trompetter et al (2017).	2	2	2	2	N/A	N/A	N/A	1	1	2	2	N/A	2	2	.95
15. Yakın et al.. (2019)	2	1	1	1	N/A	N/A	N/A	1	1	2	2	N/A	2	2	.75

16. Yang et al.. (2016).	2	2	1	1	N/A	N/A	N/A	2	1	1	2	N/A	2	2	.75
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## Appendix C: Ethical Approval

32032 - Early shame experiences and psychological distress: the role of experiential avoidance and self-compassion

**Submission Overview**

Submission Questionnaire

Attachments

History

Details

**Status** Approved

**Category** Category **B**

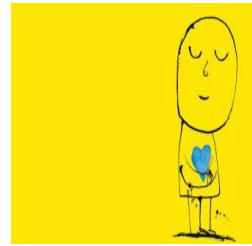
**Submitter's Faculty** Faculty of Environmental and Life Sciences (FELS)





## Appendix D- Study advert

**WE NEED YOUR HELP TO FURTHER  
UNDERSTAND SELF-COMPASSION. WIN ONE OF  
FOUR AVAILABLE £25 AMAZON VOUCHERS.**



### Why is this study being done?

This is an invitation to take part in a research study from the University of Southampton that explores if self-compassion (self-kindness, common humanity and mindfulness) helps in responding to emotions after early shaming experiences. We hope this research will help to identify if self-compassion improves responses to difficult emotions after shaming experiences and promotes psychological well-being

### Who can take part?

**Anyone who is aged above 18 and speaks English.**

### How long will the study take?

In total this should take about **25-30 minutes.**

### Are there any benefits in my taking part?

If you choose to enter your email address, you will be entered into a raffle for the chance to win one of four available £25 Amazon vouchers.

If you are studying an undergraduate Psychology Module at the University of Southampton, you will receive 4 credits for your participation



**What should I do if I want to take part?**

If you wish to take part in the study, please click the link below

If you have any questions before or after participating, please contact the researcher at [jf1n16@soton.ac.uk](mailto:jf1n16@soton.ac.uk)



**Appendix E- Information sheet**



Version 2 18/07/2018 ERGO NO:

32032

**Information sheet**

**Study Title:** Early Shame Experiences and Psychological Distress: The Role of  
Experiential Avoidance and Self-Compassion

**Researcher:** Jordan Farr

**ERGO number:** 32032

**INVITATION**

Hi, I am Jordan Farr, a Trainee Clinical Psychologist from the University of Southampton. As part of my research, I am interested in exploring the role of early shaming experiences and how this impacts on our emotions and how we respond to such emotions. The current study aims to investigate if self-kindness, common humanity and mindfulness help cope with such experiences and reduce feeling overwhelmed by difficult emotions.

Supervisors: Dr Margo Ononaiye & Dr Chris Irons

## **What will happen if I take part?**

If you would like to take part in the research, please:

1. Please read through the information about the study and what is involved below.
2. Please click on the link at the bottom of the page after reading through all the information on the screen
3. If you agree to participate within the study, please click the box at the bottom that indicates you 'consent' to take part in the study.
4. Next, you will be able to begin completing the five questionnaires involved in the study

The study consists of answering questions relating to shaming experiences, how we respond to our emotions and how compassionate we are to ourselves.

There will be five questionnaires to answer. This will begin with questions relating to shaming experiences, followed by how we respond to our emotions and how compassionate we are to ourselves. Following this, questionnaires on general psychological well-being and difficulties relating to self-kindness, common humanity and mindfulness will follow.

If you are studying an undergraduate Psychology Module at the University of Southampton, you will receive 4 credits for your participation. Additionally, once you complete the questionnaires, you will be given the option to 'opt in' if you wish to be

entered into the draw for one of four available £25 Amazon vouchers. This will require you to enter an email address that you can be contacted on if you have won. Please note, once the winner has been announced, your email address will be removed from the database to maintain confidentiality.

### **TIME COMMITMENT**

The study typically takes 30 minutes to complete across one session online. Please take your time when answering the questions as it is important that data is accurate as possible.

### **PARTICIPANTS' RIGHTS**

You may decide to stop taking a part of the research study at any time without any explanation. Furthermore, you have the right to ask that any data you have supplied to that point be withdrawn/destroyed. You have the right to have your questions about the procedures answered. If you have any questions, you should ask the researcher before the study begins.

### **Are there any benefits in my taking part?**

It is expected that there will be no personal benefits to participating within the study. Although, your participation in this study may help in further understanding the role of self-kindness, common humanity and mindfulness in relation to psychological distress following early shaming experiences. Therefore, this could contribute to further extending the research literature. Furthermore, you will receive credits for your participation within the study as part of the undergraduate psychology scheme.

## **Are there any risks involved?**

When answering sensitive questions about emotions, there is a possibility that this understandably may result in you feeling upset or distressed. If this occurs, please be aware that support is available for you. Below are a number of contact details for available support:

- Contacting your Doctor to discuss possible support
- For students at the **University of Southampton**, First Support are a small team based in the Student Services Centre (Building 37) who provide support to students who may be facing significant difficulties in their life or experiencing difficulties with their emotional wellbeing. The team offer appointments face-to-face, via the telephone or by Skype; they can be contacted during office hours by calling **+44(0)23 8059 7488** or emailing [firstsupport@soton.ac.uk](mailto:firstsupport@soton.ac.uk). Additionally, drop-in sessions are offered Monday-Friday during term time between 1-3pm and Monday, Wednesday and Friday outside of term-time at building 37.
- Website of accredited therapists- <http://www.babcp.com/Default.aspx>
- The Samaritans Telephone: **08457 90 90 90**
- **Mind (Mental Health Charity): 0300 123 3393**
- NHS Self-help resources website: <https://web.nrw.nhs.uk/selfhelp/>
- Resources about self-compassion- <https://compassionatemind.co.uk>

## **CONFIDENTIALITY/ANONYMITY**

The data that is collected will not contain any personal information about you except demographic information such as gender and age. Your information will be anonymised, so no one will link the data you provided to the identifying information you supplied.

If you choose to 'opt in' to the prize draw for one of four £25 Amazon vouchers, you will need to provide an email address to be contacted on. Your email address will be stored on our database so you can be contacted if you have won. Once the winners have been announced, your email address will be removed from our database to maintain confidentiality of participants.

When your role with this project is complete, your data will be anonymised. From that time, there will be no record that links the data collected from you with any personal data from which you could be identified (e.g., your name, address, email, etc.). Your data will be password protected on a computer and no personal information will be stored here. Up until the point at which your data have been anonymised, you can decide not to consent to having your data included in further analyses. Once anonymised, these data may be made available to researchers via accessible data repositories and possibly used for novel purposes such as publications.

### **What will happen to the results of the research?**

The results of your responses will be written up as part of research thesis to obtain a doctorate within clinical psychology. Additionally, results may also be used for research publication purposes.

## **FOR FURTHER INFORMATION**

I will be glad to answer your questions about this study at any time. You may contact me on my email ([jf1n16@soton.ac.uk](mailto:jf1n16@soton.ac.uk)).

If you have questions about your rights in this research, or you have any other questions, concerns, suggestions, or complaints that you do not feel can be addressed by the researcher, please contact the Convener of the PPLS Psychology Research Ethics committee ([psych.ethics@ed.ac.uk](mailto:psych.ethics@ed.ac.uk)).



## **Appendix F- Debrief Sheet**



ERGO ID: ERGO NO: 32032 Version 2 18/07/2018

### **Debriefing sheet**

**Title:** Early Shame Experiences and Psychological Distress: The Role of Experiential Avoidance and Self-Compassion

**Thank you for taking the time to participate in the study.**

If you are studying an undergraduate Psychology Module at the **University of Southampton**, you will receive 4 credits for your participation.

Please note that after reading the debrief sheet below, you will be given the option to 'opt in' for the opportunity to win one of four available £25 Amazon vouchers. This will require providing an email address so that you can be notified if you have won. Please be

aware that there will be separate databases for records of email addresses and questionnaire data. Once the winners have been contacted via email, all email addresses will be removed from the database.

### **Aim of the study**

The aim of the current study was to investigate if higher levels of self-compassion (self-kindness, common humanity and mindfulness) help in responding to difficult emotions following early shaming experiences and improve psychological well-being. Currently, research indicates that early shaming experiences have been identified as increasing vulnerability to psychological distress (Gilbert, 2003) and elicit unhelpful coping strategies to emotions due to the underdevelopment of adaptive ways of responding to emotional distress (Thompson & Goodman, 2010).

However, higher levels of self-compassion have been linked to improved psychological well-being (Neff, 2003). Therefore, exploring the relationship between self-compassion and use of unhelpful emotional coping strategies following early shaming experiences could have important clinical implications.

### **Further support**

When answering questions about sensitive topics like emotions, it can sometimes feel difficult and understandably may be upsetting. If you feel you would benefit from further support with your emotional wellbeing please look at the additional support information below that may be helpful.

- Contact your Doctor about potential support available

- For **University of Southampton students**, First Support are a small team based in the Student Services Centre (Building 37) who provide support to students. Please contact them via telephone **+44(0)23 8059 7488** or emailing [firstsupport@soton.ac.uk](mailto:firstsupport@soton.ac.uk).
- Website for accredited therapists- <http://www.babcp.com/Default.aspx>
- **Mind (Mental Health Charity): 0300 123 3393**
- The Samaritans Telephone: **08457 90 90 90**
- Resources about self-compassion
- NHS Self-help resources website: <https://web.nth.uk/selfhelp/>

Once again, thank you for your participation in this research.

Researchers name: Jordan Farr - [jf1n16@soton.ac.uk](mailto:jf1n16@soton.ac.uk)

Supervisors: Dr Margo Ononaiye and Dr Chris Irons

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ.  
Phone: (023) 8059 3995.

## References

- Gilbert, P. (2003). Evolution, social roles, and differences in shame and guilt. *Social Research*, 70, 1205–1230.
- Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity*, 2, 223–250. doi:10.1080/15298860309027

Thompson, R.A., & Goodman, M. (2010). *Development of emotion regulation: More than meets the eye*. In A.M. Kring & D. M. Sloan (Eds.), *Emotional regulation and psychopathology: A transdiagnostic approach to etiology and treatment* (pp. 38–58). New York: The Guilford Press.

## Appendix G- Self-Compassion Scale (Neff, 2003)

### HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

- | <b>Almost<br/>never</b> |          |          |          | <b>Almost<br/>always</b> |
|-------------------------|----------|----------|----------|--------------------------|
| <b>1</b>                | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b>                 |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
| _____                   |          |          |          |                          |
1. I'm disapproving and judgmental about my own flaws and inadequacies.
  2. When I'm feeling down I tend to obsess and fixate on everything that's wrong.
  3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.
  4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.
  5. I try to be loving towards myself when I'm feeling emotional pain.
  6. When I fail at something important to me I become consumed by feelings of inadequacy.
  7. When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am.
  8. When times are really difficult, I tend to be tough on myself.
  9. When something upsets me I try to keep my emotions in balance.
  10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
  11. I'm intolerant and impatient towards those aspects of my personality I don't like.
  12. When I'm going through a very hard time, I give myself the caring and tenderness I need.
  13. When I'm feeling down, I tend to feel like most other people are probably happier than I am.
  14. When something painful happens I try to take a balanced view of the situation.
  15. I try to see my failings as part of the human condition.
  16. When I see aspects of myself that I don't like, I get down on myself.
  17. When I fail at something important to me I try to keep things in perspective.

- \_\_\_\_\_ 18. When I'm really struggling, I tend to feel like other people must be having an easier time of it.
- \_\_\_\_\_ 19. I'm kind to myself when I'm experiencing suffering.
- \_\_\_\_\_ 20. When something upsets me I get carried away with my feelings.
- \_\_\_\_\_ 21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.
- \_\_\_\_\_ 22. When I'm feeling down I try to approach my feelings with curiosity and openness.
- \_\_\_\_\_ 23. I'm tolerant of my own flaws and inadequacies.
- \_\_\_\_\_ 24. When something painful happens I tend to blow the incident out of proportion.
- \_\_\_\_\_ 25. When I fail at something that's important to me, I tend to feel alone in my failure.
- \_\_\_\_\_ 26. I try to be understanding and patient towards those aspects of my personality I don't like.

## Appendix H: Fear of compassion- towards the self (Gilbert et al., 2011)



### Scale 3: Expressing kindness and compassion towards yourself

1.	I feel that I don't deserve to be kind and forgiving to myself	0	1	2	3	4
2.	If I really think about being kind and gentle with myself it makes me sad	0	1	2	3	4
3.	Getting on in life is about being tough rather than compassionate	0	1	2	3	4
4.	I would rather not know what being 'kind and compassionate to myself' feels like	0	1	2	3	4
5.	When I try and feel kind and warm to myself I just feel kind of empty	0	1	2	3	4
6.	I fear that if I start to feel compassion and warmth for myself, I will feel overcome with a sense of loss/grief	0	1	2	3	4
7.	I fear that if I become kinder and less self-critical to myself then my standards will drop	0	1	2	3	4
8.	I fear that if I am more self compassionate I will become a weak person	0	1	2	3	4
9.	I have never felt compassion for myself, so I would not know where to begin to develop these feelings	0	1	2	3	4
10.	I worry that if I start to develop compassion for myself I will become dependent on it	0	1	2	3	4
11.	I fear that if I become too compassionate to myself I will lose my self-criticism and my flaws will show	0	1	2	3	4
12.	I fear that if I develop compassion for myself, I will become someone I do not want to be	0	1	2	3	4
13.	I fear that if I become too compassionate to myself others will reject me	0	1	2	3	4
14.	I find it easier to be critical towards myself rather than compassionate	0	1	2	3	4
15.	I fear that if I am too compassionate towards myself, bad things will happen	0	1	2	3	4





## Appendix I: Early Life Events Scale (Gilbert et al., 2003)



### EARLY LIFE EVENTS SCALE

This scale is designed to explore your memories of your childhood. Research suggests that early experiences play a role in later psychological difficulties. Below are a set of questions that tap various aspects of early life. Read each question carefully and rate how true each statement is for you. To do this, circle a number under each statement.

	<b>Completely untrue</b>				<b>Very occasionally true</b>			<b>Sometimes true</b>			<b>Fairly true</b>			<b>Very true</b>
	<b>1</b>				<b>2</b>			<b>3</b>			<b>4</b>			<b>5</b>
1.	I often had to give in to others at home													
	1	2	3	4	5									
2.	I felt on edge because I was unsure if my parents might get angry with me													
	1	2	3	4	5									
3.	I rarely felt my opinions mattered much													
	1	2	3	4	5									
4.	There was little I could do to control my parents' anger once they became angry													
	1	2	3	4	5									
5.	If I didn't do what others wanted I felt I would be rejected													
	1	2	3	4	5									
6.	I felt able to assert myself in my family													
	1	2	3	4	5									
7.	I felt very comfortable and relaxed around my parents													
	1	2	3	4	5									
8.	My parents could hurt me if I did not behave in the way they wanted													
	1	2	3	4	5									
9.	I felt an equal member of my family													
	1	2	3	4	5									
10.	I often felt subordinate in my family													
	1	2	3	4	5									
11.	My parents exerted control by threats and punishments													
	1	2	3	4	5									

12 I often had to go along with others even when I did not want to

1 2 3 4 5.

13 In order to avoid getting hurt I used to try to avoid my parents

1 2 3 4 5

14 The atmosphere at home could suddenly become threatening for no obvious reason

1 2 3 4 5

15 I experienced my parents as powerful and overwhelming

1 2 3 4 5



## Appendix J- Acceptance and Action Questionnaire-II (Bond et al., 2011)

### AAQ-II

Below you will find a list of statements. Please rate how true each statement is for you by using the scale below to fill in your choice.

1	2	3	4	5	6	7
never true	very seldom true	seldom true	sometimes true	frequently true	almost always true	always true

1. My painful experiences and memories make it difficult for me to live a life that I would value.

2. I'm afraid of my feelings.

3. I worry about not being able to control my worries and feelings.

4. My painful memories prevent me from having a fulfilling life.

5. Emotions cause problems in my life.

6. It seems like most people are handling their lives better than I am.

7. Worries get in the way of my success.

TOTAL

This is a one-factor measure of psychological inflexibility, or experiential avoidance. Score the scale by summing the seven items. Higher scores equal greater levels of psychological inflexibility.

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., Waltz, T., & Zettle, R. D. (in press). Preliminary psychometric properties of the Acceptance and Action Questionnaire – II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy*.



## Appendix K: Depression, Anxiety and Stress Subscale (DASS21)

# DASS21

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you **over the past week**. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree or a good part of time
- 3 Applied to me very much or most of the time

1 (s)	I found it hard to wind down	0	1	2	3
2 (a)	I was aware of dryness of my mouth	0	1	2	3
3 (d)	I couldn't seem to experience any positive feeling at all	0	1	2	3
4 (a)	I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5 (d)	I found it difficult to work up the initiative to do things	0	1	2	3
6 (s)	I tended to over-react to situations	0	1	2	3
7 (a)	I experienced trembling (e.g. in the hands)	0	1	2	3
8 (s)	I felt that I was using a lot of nervous energy	0	1	2	3
9 (a)	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10 (d)	I felt that I had nothing to look forward to	0	1	2	3
11 (s)	I found myself getting agitated	0	1	2	3
12 (s)	I found it difficult to relax	0	1	2	3
13 (d)	I felt down-hearted and blue	0	1	2	3
14 (s)	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15 (a)	I felt I was close to panic	0	1	2	3
16 (d)	I was unable to become enthusiastic about anything	0	1	2	3
17 (d)	I felt I wasn't worth much as a person	0	1	2	3
18 (s)	I felt that I was rather touchy	0	1	2	3
19 (a)	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	0	1	2	3
20 (a)	I felt scared without any good reason	0	1	2	3
21 (d)	I felt that life was meaningless	0	1	2	3

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