

Submitted in partial fulfilment of the
LANCASTER UNIVERSITY DOCTORATE IN CLINICAL PSYCHOLOGY
February 2020

Doctoral Thesis
Self-conscious emotions among survivors of trauma

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Word Count

	Main text	Appendices, tables, figures and references	Total
Thesis abstract	299	-	299
Literature review	7,999	5,019	13,018
Empirical paper	7,683	7,837	15,520
Critical appraisal	3,998	2,002	6,000
Ethics proposal	4,961	7,845	12,806
Total	24,940	22,703	47,643

Abstract

A literature review, empirical study and critical review were conducted into the role of self-conscious emotions (SCEs) following trauma. SCEs such as shame (evaluation of the self), guilt (evaluation of behaviour) and self-disgust (disgust directed towards the self) can cause significant distress and may be particularly high among survivors of trauma.

Research has focused on individual SCEs in isolation, often using terms for the different SCEs interchangeably. Therefore, the literature review synthesised the qualitative literature on experiences of SCEs as a whole, among survivors of childhood sexual abuse. Fourteen papers were identified and synthesised using the thematic synthesis method. Three themes emerged: What the abuse means about me, (Dis)connection from others, and SCEs in the recovery journey. Within each theme was a tension between contrasting positions. The self was experienced as both powerlessly vulnerable and potently bad. Connection with others was both deeply threatening and a haven from SCEs. SCEs were both inescapable and the route to healing. Disclosure was instrumental in recovery but could be either de-shaming or re-shaming depending on the response received.

The empirical paper examined the relationships between reluctance to disclose traumatic experiences, posttraumatic stress (PTS) and SCEs. Adults with experience of trauma were recruited online (n=443) and completed psychometrics measuring SCEs, reluctance to disclose and PTS. Shame and self-disgust, but not guilt, were significantly correlated with reluctance to disclose and PTS. Self-disgust but not shame moderated the relationship between reluctance to disclose and PTS. Among participants who reported sexual trauma, both shame and self-disgust moderated the relationship between reluctance to disclose and PTS. Reluctance to disclose predicted PTS at all but the highest levels of self-disgust/shame.

The critical review reflected on issues of parallel process with the research, the importance of cultural context in understanding SCEs, and implications for clinical psychologists in practice.

Declaration

This thesis documents research submitted in November 2019 in partial fulfilment of Lancaster University's Doctorate in Clinical Psychology. The work presented here is my own, except where reference is made. The work has not been submitted for any other academic award.

Lily Lewis

February 2020

Acknowledgements

I would like to thank all the people who generously gave their time to taking part in this research, and to the organisations and individuals who supported it by sharing it on their platforms. I would also like to thank my supervisors, Professor Bill Sellwood, Dr Kirsty Kennedy, and Dr Ian Fletcher and Dr Jane Simpson for their input and support.

Thank you to my family and friends, and particularly to Liz and Hannah for being such supportive and encouraging training buddies. I'm so glad I had you with me through this journey.

Finally, thank you to Tom for all the love, patience and care. I don't think I could have done it without you.

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Section One: Literature Review

Experiences of self-conscious emotions among survivors of childhood sexual abuse

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Abstract word count: 225

Manuscript word count (excluding tables, figures, references and appendices): 7,999

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Prepared for submission to the Journal of Child Sexual Abuse – see Appendix 1-1 for author
guidelines

Abstract

Shame (evaluation of the self) and guilt (evaluation of behaviour) are two key self-conscious emotions (SCE) that result from childhood sexual abuse (CSA). SCEs may result in worsening post-traumatic stress symptoms. However, research has focused on individual SCEs in isolation. Additionally, there is inconsistency and overlap in use of the terms shame and guilt in both literature and lay language, despite their theoretical distinctions. In order to understand how different SCEs are linked to psychological distress among survivors of CSA, the current review synthesised the qualitative literature on CSA survivors' experiences of SCEs as a whole. A systematic search of electronic databases identified 14 papers for inclusion, which were reviewed using thematic synthesis. Three themes emerged: What the abuse means about me, (Dis)connection from others, and SCEs in the recovery journey. Within each theme was a tension between contrasting positions. The self was experienced as both powerlessly vulnerable and potently bad. Connection with others was both deeply threatening and a haven from SCEs. SCEs were both inescapable and the route to healing. Disclosure was instrumental in recovery, but could be either de-shaming or re-shaming depending on the response received. The results suggest that trauma-informed working is vital across health services and across all staff who interact with service users, not just among psychological therapists.

Key words: *trauma, childhood sexual abuse, self-conscious emotions, shame, guilt*

Introduction

From revelations in the American media industries (Cobb & Horeck, 2018) to UK public inquiries into childhood sexual exploitation (Jay, 2014; Jay, Evans, Frank & Sharpling, 2019), a public discourse around the consequences and scale of childhood sexual abuse (CSA) has developed. This has included global public engagement, focused around the #metoo movement (Pellegrini, 2018). Prior to this, research has consistently demonstrated the high prevalence and far-reaching consequences of CSA (Pereda, Guilera, Forns & Gomez-Benito, 2009).

CSA is a general predictor of psychological distress, including post-traumatic stress, self-harm, suicide, low mood, anxiety, psychosis, eating disorders, substance misuse, and interpersonal difficulties, even when controlling for socioeconomic factors, other abuse, and care-giver factors, and predicts later re-victimisation (Briere & Elliott, 2003; Chen et al., 2010; Dube et al., 2005; Fergusson, Boden & Horwood, 2008; Maniglio, 2009; Molnar, Buka & Kessler, 2001).

While many childhood adversities are associated with psychological distress and social issues (Boullier & Blair, 2018), CSA appears particularly impactful (Briere & Elliott, 2003). Fergusson et al. (2008) reported that CSA accounted for 13% of mental health problems in a general population cohort, compared with 5% attributed to childhood physical abuse. CSA was the strongest predictor of suicidal behaviour in children and young people, compared with physical abuse and neglect (Serafini et al., 2015). Over 20% of suicides and suicide attempts in adult women may be attributable to CSA (Devries et al., 2014).

In order to sensitively and effectively support survivors of CSA, understanding the mechanisms by which it leads to mental health problems is needed. Fear has been emphasised as a central emotion in the development of psychological difficulties following trauma (Foa & Kozak, 1986; Keane, Zimering & Caddell, 1985). However, evidence now

also implicates self-conscious emotions (SCEs). SCEs are a group of emotions involving evaluation of the self or anticipation of evaluation by others, including shame, guilt, pride, embarrassment and humiliation (Robins & Schriber, 2009; Tracy & Robins, 2004; Tracy, Robins & Tangney, 2007). SCEs are distinguished from basic emotions, such as sadness and anger, by the element of self-evaluation, requiring self-awareness and internal representations of the self (Tangney & Dearing, 2002).

Where basic emotions support survival-oriented goals, SCEs serve primarily social goals (Tracy & Robins, 2004). Social status and group inclusion are argued to be vital for survival, through access to resources and mating partners (Wilson, 2000) and to resolve conflict. SCEs are argued to act as warning signals for real or potential loss of social status and to prompt action (Gilbert, 2000; Kemeny et al., 2004).

The most extensively researched SCEs are shame and guilt. These terms have been used interchangeably within literature and lay language. However, they are theoretically distinct. Shame is a sense of the whole self as defective or inferior, prompting an urge to withdraw and hide the self (Lewis, 1971, 1987; Tangney & Dearing, 2002; Tracy et al., 2007). In contrast, guilt stems from an evaluation of particular behaviour as failing to meet moral standards and may lead to attempts at reparation (Lewis, 1971; Tangney & Dearing, 2002; Tracy & Robins, 2004; Tracy et al., 2007). Although shame involves awareness of how we exist for others, it can occur in relation to private aspects of the self, with an imagined audience internalised from prior experience (Gilbert, 2007).

Research into self-disgust is also now emerging (Badour, Bown, Adams, Bunaciu & Feldner, 2012; Clarke, Simpson & Varese, 2019; Rusch et al., 2011), suggesting it as a theoretically distinct SCE (Powell, Overton & Simpson, 2015; Roberts & Goldenberg, 2007). Powell, Simpson, and Overton (2015) define self-disgust as “an enduring (or repetitive) disgust reaction elicited by particular aspects(s) of the self, which are deemed significant to

an individual's sense of self, and appraised as relatively constant and/or not easily changeable" (p.5). The phenomenological experience is a visceral, physiological reaction of repulsion and nausea (Powell, Simpson, et al., 2015).

Attempts have been made to develop an overarching theoretical framework for SCEs. Tracy and Robins (2004) suggest that SCEs occur following an attributional process in which the self is compared against identity-relevant goals. They propose that SCEs occur when there is incongruence between the self and these goals, and this incongruence is attributed to some internal cause. In distinguishing between shame and guilt, Tracy et al. (2007) describe a process in which the internal cause of the incongruence is determined to be either stable or transient, and either global or specific. Where the individual attributes the incongruence to stable and global features of the self, shame is likely to occur. Where the incongruence is attributed to unstable and specific features, guilt is likely. For example, failing an academic exam may lead to guilt if the person perceives that they did not revise enough, whereas shame may occur if the individual attributes the event to their incompetence.

Shame is particularly high following interpersonal compared with impersonal traumas (La Bash & Papa, 2014). Even among interpersonal traumas, SCEs appear to be particularly important in sexual abuse. Feelings of shame are common amongst survivors of CSA, both at the time of and following abuse (Andrews & Hunter, 1997; Feiring & Taska, 2005; Ginzburg et al., 2009; Kealy, Rice, Ogrodniczuk & Spidel, 2018). Amstadter and Vernon (2008) found that guilt and shame were higher in survivors of sexual assault than numerous other interpersonal and impersonal traumas, including physical assault.

Interestingly, Amstadter and Vernon (2008) report that shame increased over time after sexual assault, whereas for other traumas shame decreased. This may reflect two processes at work. In their model of shame and guilt in trauma, Lee, Scragg, and Turner (2001) suggest that shame can be both primary, i.e. the trauma by its nature produces shame,

and secondary, i.e. evaluation of the meaning of the trauma leads to shame after the event. Numerous causes for these negative evaluations can be hypothesised, such as the survivor's internal evaluation of their response to the event, negative responses from others following disclosure (Ullman, 2003), and societal stigma.

Outcomes for survivors experiencing high levels of shame may be particularly poor (Feiring & Taska, 2005; Vidal & Petrak, 2007). Shame may lead to avoidance of internal and external reminders of the trauma. While this may reduce exposure to stressful stimuli, it is hypothesised to hinder processing of the abuse (Feiring & Taska, 2005; Lee et al., 2001). Linked to this, shame following sexual assault is highest in people who conceal or avoid talking about the abuse (Bonanno et al., 2002; Vidal & Petrak, 2007). As a consequence, shame has been identified as an important intervention target in survivors of CSA (Alix, Cossette, Hebert, Cyr & Frappier, 2017).

Using a qualitative approach to explore these issues can make central survivors' experiences and provide great depth of understanding. However, the majority of existing qualitative literature on SCEs following sexual abuse focuses on shame, to the exclusion of other SCEs. This may be due to the relative maturity of their theoretical bases. A second reason may be a problem of language. Despite distinct theoretical constructs underpinning the different SCEs, the terms are often used interchangeably. This may obscure the importance of SCEs other than shame. Synthesising the literature will provide an in depth understanding of survivors' experiences of SCEs as a whole, rather than looking at each SCE in isolation, and provide an opportunity to tease apart the different SCEs and their different relationships with distress in the qualitative literature. Therefore, the aims of the current review are: to understand the experiences of CSA survivors across the range of SCEs, and to understand survivors' perspectives on the relationships between SCEs, trauma and psychological

distress. This may inform the theoretical literature around the mechanisms by which traumatic experiences lead to psychological distress.

Method

Search strategy

The databases PsychInfo, Pubmed, EMBASE, Web of Science, CINAHL and SCOPUS were searched in October 2018. Each database was individually searched for keywords in title or abstract fields, using the free text and thesaurus terms shown in Table 1. Database filters were applied to remove papers not published in English. The search strategy was reviewed by a specialist librarian, who advised on search terms and their combinations, filters, and databases.

Study selection

After removal of duplicates, titles and abstracts were screened according to inclusion/exclusion criteria. Full texts for the remaining articles were retrieved and compared against inclusion and exclusion criteria, shown in Table 1.

Reference lists of papers selected for inclusion were scanned for relevant papers. The PRISMA flow diagram is shown in Figure 1. Study selection was carried out by one reviewer. Where there were ambiguities regarding inclusion/exclusion, these were discussed with research tutors on an ongoing basis.

Quality appraisal

The Criteria for Reporting Qualitative Research (COREQ) was used to critically appraise included studies (Tong, Craig & Sainsbury, 2007). The COREQ is a 32-item tool bringing together items from 22 existing tools. Unlike some checklists, such as the Critical Appraisal Skills Programme Qualitative Checklist (Critical Skills Appraisal Programme, 2017), the COREQ is peer-reviewed and published. Studies were not excluded based on quality.

Data synthesis

The studies were analysed using thematic synthesis, a three-stage method in which the reviewer conducts line-by-line coding of the text, groups codes into descriptive themes, and finally develops analytical themes (Thomas & Harden, 2008). This was considered appropriate due to the variation in selected studies, some of which were relevant to the research question in their entirety, and some of which contained only one relevant theme. The studies also varied greatly in depth of analysis, some being very descriptive and others more analytical. In addition, Thomas and Harden suggest that thematic synthesis may be more appropriate than the commonly used meta-ethnography where the reviewer seeks to place the findings of the review within an external framework. This would allow the findings to be considered within the literature on SCEs, particularly given the way terms for the different SCEs are often used interchangeably or at odds with the theoretical literature. To minimise the risk of bias, the process of developing codes and themes was discussed with thesis supervisors.

Synthesising qualitative literature is a subjective exercise influenced by the reviewer's own characteristics and experiences (Sandelowski, 2007). My reading and analysis is influenced by my clinical work, which leads me to view SCEs as fundamental to survivors' difficulties, both contributing to and maintaining them. The analysis has also been influenced by my epistemological position of pragmatism: truth is valued according to what it is useful for us to believe, rather than being an attempt to accurately describe reality (Bacon, 2012). SCEs are seen as a useful framework for understanding distress and qualitative research as a valuable means of generating a depth of understanding about survivors' experiences.

Results

After searching 14 databases, 2,793 papers were identified after de-duplication. Titles and abstracts were screened according to inclusion/exclusion criteria, leaving 257 papers for

full text review. Thirteen of these met inclusion/exclusion criteria, and a further paper was identified through reference searching, leaving a final sample of 13 papers (see Figure 1 for a summary).

Study characteristics

Study and participant characteristics from the 14 studies are shown in Tables 2 and 4. The studies were conducted across North America ($n=7$), Europe ($n=4$), Australia and New Zealand ($n=3$). They used purposive samples of 3 to 26 participants. Nine studies recruited through services for survivors of sexual trauma, three through public forums and media, one through a health clinic and one unknown. Nine recruited females, three recruited males and three recruited both. The most common methodological approach was phenomenology, with narrative, content analysis and thematic analysis also used. Nine studies described steps taken to optimise validity: four used multiple coders, two used discussion between researchers, and three shared themes with participants for feedback.

Analysis

The data formed three themes. Theme one was What the abuse means about me, containing five sub-themes: Self as fundamentally bad, Self-blame, Self as unworthy, Self-disgust, and Powerlessness. Theme two was (Dis)connection from others, containing five sub-themes: Keeping others at a distance, Not belonging, SCEs as a barrier to disclosure, Broken trust, and Urge to connect. Theme three was SCEs in the recovery journey, containing three sub-themes: Pervasiveness, Judgements about coping, and Overcoming shame and guilt. Within each theme was a tension between two contradictory positions. Connection with others was both deeply threatening and a haven from SCEs. The self was experienced as both vulnerably powerless and potently bad. SCEs were both inescapable and the route to healing. These ideas are explored further below.

Theme 1: What the abuse means about me

“I have a kind of black hole inside me” (Rahm, Renck & Ringsberg, 2006, p. 106)

Self as fundamentally bad

Many studies discussed the survivors’ sense that they were in some way “flawed and defective” (McEvoy & Daniluk, 1995, p. 225). Participants experienced themselves as fundamentally bad, the whole self being implicated. This sub-theme demonstrated participants’ feelings of profound shame, stemming from both the fact the abuse occurred (one of the “most persistent legacies of abuse”; Lisak, 1994, p. 543), and from “the psychological consequences of that abuse” (Dorahy & Clearwater, 2012, p. 163). Participants experienced both internal and external shame. They felt themselves to be “shameful beings” (Dorahy & Clearwater, 2012, p. 162), but also anticipated others viewing them as such (“they look down on me, they definitely think...I’m a total failure”; Rahm et al., 2006, p. 105).

Some studies touched on the relationship between shame and guilt. Dorahy and Clearwater (2012) used the phrase “Self as Shame” (p.162) rather than “Self as Shamed”, to show what the person feels they are, rather than what they have done. This was summarised by one participant: “guilt is something that you’ve done that you can correct...Shame is actually what you are” (Dorahy & Clearwater, 2012, p. 162). However, guilt and shame were intertwined, with participants’ beliefs that they had done wrong meaning they were fundamentally bad.

The sense of self as fundamentally bad tainted participants’ efforts and there was a sense of inevitable failure: “whatever you do is no good” (Rahm et al., 2006, p. 105).

Difficulties faced were seen as due to inherent flaws, rather than external factors: “Here I am, a failure again” (Wood & Van Esterik, 2010, p. 138).

Self-blame

Many participants felt they had done something gravely wrong, something “really dirty, really bad” (Lisak, 1994, p. 543) and that they should have acted to prevent or stop the abuse. Participants both blamed themselves: “I thought it was my fault, because I was a bad girl” (McEvoy & Daniluk, 1995, p. 225); and felt blamed by others: “[she] told me that I was a promiscuous whore” (Saha, Chung & Thorne, 2011, p. 106).

There was a sense of disbelief that this had happened to them: “I couldn’t understand that it was me it had happened to” (Rahm et al., 2006, p. 104). The abuse seemed to challenge a belief that participants were in control of their lives and bodies. To have this idea so violently shattered was deeply shocking, and continued to be so into adulthood. To see the self as not in control of the abuse was unbearable (“it’s so much easier to just take the blame for it”; Lisak, 1994, p. 543), but seeing the self as in control led to guilt: “I felt dirty because I felt like I could have controlled it” (Senn, Braksmajer, Hutchins & Carey, 2017, p. 501). Some participants seemed to hold unreasonable expectations of their past selves, and consequent self-blame: “I always thought I was a real smart two year old. So why didn’t I get out of it. I blame myself.” (Lisak, 1994, p. 543)”. Some participants acknowledged that they did not have control over the abuse, but even then, they felt they should not have got into a situation where they did not have control: responsibility still lay with them.

Where the previous theme describes participants feeling flawed because of the abuse, participants also thought they had been abused *because* they were flawed: (“there was something defective from the beginning”; Lisak, 1994, p. 543). One study suggested that this may be particularly so for people abused by multiple perpetrators, reinforcing the sense that there was something about them that caused the abuse.

For some participants, guilt lead to a visceral self-destructive rage and an urge to punish the self: “it’s not so much I want to kill myself, but I want to kill that little boy that

caused all that pain” (Lisak, 1994, p. 543). This led to problematic strategies such as self-harm and alcohol use.

Self as unworthy

Out of the sense of the self as fundamentally bad and responsible came a sense of having no intrinsic value as a human being, and of being unworthy of care. Participants viewed themselves as inferior to others, “lower than the lowest” (Collins, O’Neill-Arana, Fontes & Ossege, 2014, p. 528), and without rights or entitlements.

This had profound effects on participants’ relationships. It made participants vulnerable to unhealthy or abusive relationships as adults, perpetuating relational patterns established during the initial abuse. Shame made it difficult to accept kindness from others and they “rejected those who demonstrated caring and concern” (McEvoy & Daniluk, 1995, p. 224). One participant explained that “I felt that...the relationships and some of the things that happened to me in my adulthood that I deserved them because of what happened to me as a child” (Senn et al., 2017, p. 501). Rather than seeing themselves as deserving of support because of their experiences, they felt this disqualified them. One study discussed the reinforcing effects of these relational experiences, which could strengthen participants’ “sense of being unworthy and undeserving of love and respect” (McEvoy & Daniluk, 1995, p. 224).

Self-disgust

While none of the included studies set out to study self-disgust it emerged across a number of them. Participants described themselves as “dirty and yucky” (McEvoy & Daniluk, 1995, p. 225). There was a sense of feeling “dirty” physically, but also emotionally because of decisions they made or because they lost control: “it’s not just on the physical level, it’s emotional too” (Senn et al., 2017, p. 501). For many, the feeling of being “dirty” was all

encompassing: “I felt like the filthiest, most disgusting child in the world. It was really disgust, disgust beyond description” (Rahm et al., 2006, p. 105).

Self-disgust lead to dissociation for some participants, who described depersonalisation (“I couldn’t understand that it was me it had happened to”; Rahm et al., 2006, p. 105) and derealisation (“it was as though it happened outside everything else”; Rahm et al., 2006, p. 106) and shutting off feelings. In some studies self-disgust led participants to hide themselves from others. As one participant put it: “I always felt dirty, shame, guilt – that I was wrong in some way. I felt like a tart and that if I drew attention to myself that people would see me in that light and not like me” (Darlington, 1995, p. 14).

Powerlessness

In apparent tension with the view of the self as fundamentally bad and responsible for the abuse, the self was also experienced as powerless. This was evident in participants’ internal experiences of themselves, and in their external experiences within relationships. Participants felt small next to others. This was even present in one participants’ experience of the research interview: “I feel little in some way, I feel little in relation to you.” (Rahm et al., 2006, p. 105).

Participants felt powerless to influence their relationships, as though at the whim of others. They believed they could not possibly be acceptable to others, who would reject them unpredictably if they “saw them as they really believed themselves to be” (Darlington, 1995, p. 13). This made participants sensitive to how they believed others perceived them, leading to sudden changes in how they felt about themselves: “just a word can make me feel like the scum of the earth” (Rahm et al., 2006, p. 105). In an attempt to cope with this, participants found themselves making assumptions about others’ thoughts about them. This could put significant pressure on participants’ relationships: “I can question the entire relationship” (Rahm et al., 2006, p. 106). It could be very difficult for participants to repair ruptures in

relationships. Disagreements triggered feelings of shame, and made the exposure of attempting to resolve conflicts intolerable: “it hurts so much in my soul” (Rahm et al., 2006, p. 106).

Powerlessness was particularly significant in the context of relationships with abusers. Participants could regress to a childlike state around more powerful others, making them vulnerable to further abuse: “I’m a little four-year-old girl again, I can’t say anything, I can’t even say no, when he still starts touching me,” (Rahm et al., 2006, p. 105).

Theme 2: (Dis)connection from others

“The shame has probably been the biggest obstacle for me that keeps me hidden inside myself ” (McEvoy & Daniluk, 1995, p. 225)

Keeping others at a distance

Disconnection from others was in part a strategy to maintain a feeling of safety. Participants hid themselves to avoid triggering shame about the abuse. Participants kept others at a distance by trying to “deflect attention from themselves” (Darlington, 1995, p. 13) or by masking reality (“I found myself lying to people...well not lying but exaggerating facts...I’d think ‘don’t ask me anything personal’”; Dorahy & Clearwater, 2012, p. 163). For some, hiding away was driven by a conviction that it was the only way to hide the abuse: “I always imagined...dirty things hanging from me and people could see what had happened” (Saha et al., 2011, p. 105).

Participants wanted to “keep [their] true feelings covered up” (Dorahy & Clearwater, 2012, p. 164) to avoid rejection. Rejection seemed so inevitable that it made sense to pre-emptively disconnect from others, which led to isolation and loneliness anyway. Private isolation seemed safer than the public humiliation of rejection.

The abuse led to ideas about the self that were incongruent with the participants’ ideal selves and they feared others seeing this. As a result they “prefer to remain silent rather than

to take the risk of being misunderstood and being blamed for the abuse” (Rahm et al., 2006, p. 104). Participants struggled to tolerate the more vulnerable parts of themselves, making it imperative to hide them from others: “I want them to see me as a happy, nice person . . . I am a little ashamed then...I have difficulty accepting the illness” (Rahm et al., 2006, p. 105). Participants seemed to feel they had little control over who they became, or how they were seen by others, other than withdrawing. This was the only strategy available to manage their identity and public image.

Not belonging

Keeping others at a distance was a conscious strategy with recognised benefits: “if I went somewhere and no-one spoke to me I’d go home quite happy because I’d missed the limelight” (Darlington, 1995, p. 14). However, participants also highlighted the costs: isolation, loneliness, reduced social opportunities, and a sense of not belonging anywhere. As one participant put it: “I’ve never ever had any true friends...I couldn’t even allow my wife to enter my world” (Dorahy & Clearwater, 2012, p. 164).

Participants wanted to be like others, but felt fundamentally different and estranged (“I have always felt different – I have always wanted, all my life, to be anyone – normal”; Rahm et al., 2006, p. 107). Participants felt like outsiders because of the abuse itself (“In purely logical terms, I know that other people are abused, but it feels as though you are alone”; Rahm et al., 2006, p. 104), but also because of the consequences of the abuse (“I even find it tough joining a regular club, if they find out that I’ve had mental illness”; Dorahy & Clearwater, 2012, p. 163). This affected survivors’ efforts to meet new people, but also existing relationships: “I’m the pariah of the family ” (Rahm et al., 2006, p. 104).

There was a sense of not even belonging with other survivors,: “it’s like everyone’s dealing with their own little bit of it but none of that’s integrated” (Dorahy & Clearwater, 2012, p. 164). For those whose experiences were particularly unusual, shame could silence

them even amongst other survivors: “Because I am a mother-daughter incest survivor, I feel so isolated. It took me a long time to be able to say to those women that my mother had abused me” (Ogilvie & Daniluk, 1995, p. 600). Similarly, for men abused by women there was confusion due to the reversal of the societal view of women as victims and men as abusers.

SCEs as a barrier to disclosure

Shame was clearly a barrier to disclosure: “I was so ashamed of [it]...I didn’t tell anybody” (Saha et al., 2011, p. 105). Shame seemed to bring with it fears about “whether others would listen or ignore, accept or reject, maintain confidentiality or breach it” (Dorahy & Clearwater, 2012, p. 163). This was particularly so around disclosing to close friends and family, which brought greater risks of “not being believed, of being rejected” (Rahm et al., 2006, p. 104). In contrast, disclosure to someone less close felt less intimate: “the people who were further away...that wasn’t a problem...because I could shut myself off” (Rahm et al., 2006, p. 104). Throughout the studies, disclosure was not a one-time event, but rather participants faced disclosures plural, and an ongoing process of whether and how to make them, all of which was influenced by SCEs.

One study (Hunter, 2011) found that for male survivors, concerns around what the abuse meant about their sexuality inhibited disclosure. Those participants who had been abused by men feared they would be labelled as gay and stigmatised by others if they found out about the abuse. These concerns led participants to remain silent about their experiences. One participant explained that SCEs only became problematic once he started to realise that the abuse had been “homosexual”: “As I grew to my mid-teens and understood what had happened at that time of him taking my manhood away from me...that’s when I began to get the sense of embarrassment, of shame, guilt” (Hunter, 2011, p. 163).

One study found that shame could also be a reason to disclose. Participants anticipated rejection in response, but felt an obligation to tell their romantic partners “this ‘dirty’ secret about themselves”, as though they owed it to their partner to tell them how damaged they felt themselves to be (MacIntosh, Fletcher & Collin-Vezina, 2016, p. 603).

If a disclosure was made, the response received could influence how the participant felt about themselves, their relationship with the person disclosed to, and the likelihood of future disclosures. A negative response could lead to increased shame and a position of “I’m never doing that again” (MacIntosh et al., 2016, p. 605).

Broken trust

Participants felt betrayed by people they trusted who could have prevented the abuse but did not. This related not to the abusers themselves, but to bystanders: “I don’t hold him responsible. I hold all the women in my life [responsible]” (Collins et al., 2014, p. 528). Two papers discussed a sense of cultural betrayal. For some this was because the abusers were from their own cultural group “a fact that further reinforced their sense of cultural shame and disgust” (McEvoy & Daniluk, 1995). For others it was because they felt blamed because of messages from their community: “the guilt and the shame and the punishment, that whole concept of sin...my abuser told me it was all my fault—so to hear that repeated over and over again, through the church...drove it home for me” (Collins et al., 2014, p. 528). Participants were explicit about the fact that being disbelieved created shame: “[Having abuse denied] creates shame, because I’m not being believed and this is actually my reality...it’s a really shattering experience” (Dorahy & Clearwater, 2012, p. 166).

The urge to connect

The above sub-themes explore disconnection from others as a survival strategy, which despite its costs, feels necessary to protect the self from the crushing SCEs triggered by closeness with others. However, this was in contradiction with a sense that connection with

others was vital, a “haven from shame” (Dorahy & Clearwater, 2012, p. 164). Participants longed to blend in with others and to be seen as a “happy, nice person” (Rahm et al., 2006, p. 104).

Despite the risks of a negatively received disclosure, telling others about the abuse could play a key role in working through SCEs: disclosure was “instrumental in helping [participants] deal with the shame” (Chouliara, Karatzias & Gullone, 2014, p. 74). Participants often did not expect a positive response to disclosure and were “surprised, confused and relieved” (MacIntosh et al., 2016, p. 604) when this happened.

One participant spoke about the importance of connecting specifically with other survivors as “it would be good if we could talk freely about how shit our childhood was” (Dorahy & Clearwater, 2012, p. 165).

Theme 3: SCEs in the recovery journey

“Just because your sneakers got muddy...doesn’t mean you can’t rinse them off and get them back clean” (Senn et al., 2017, p. 501)

Pervasiveness

SCEs were experienced as a huge and powerful force, all-encompassing and barely escapable, “the biggest obstacle” (McEvoy & Daniluk, 1995, p. 225). Shame was “like being put in a box you can’t climb out of” (Dorahy & Clearwater, 2012, p. 162) and followed the participants as a constant oppressor: “there wasn’t a day that went by that I didn’t think or feel some guilt” (Collins et al., 2014, p. 528). Negative feelings about and an urge to hide the self were never far below the surface and could be triggered by even unrelated conversation: “seemingly innocuous questions that might touch on the abuse history” (Dorahy & Clearwater, 2012, p. 163). SCEs reached far and wide through the participants’ lives and tainted their experiences: “when someone says that something's wrong...the first thing I think it's me, that I did something wrong” (Lisak, 1994, p. 543). Even when participants managed

to achieve some respite from SCEs it could be short-lived. Shame quickly “reinstated itself” (Dorahy & Clearwater, 2012, p. 164): “once the fun was gone I was back to the old...me” (Dorahy & Clearwater, 2012, p. 165). One study reported that for some women, guilt was worse than the abuse (Collins et al., 2014).

Participants sought recovery from their shame and guilt, but shame and guilt infected and tainted even this process, making it difficult to engage in therapy. Participants struggled to hold a compassionate stance towards themselves: “if I see that child as me, it’s hard for me to move with the heart. If I see that child as someone else...then I can move with a heart” (McEvoy & Daniluk, 1995, p. 225). It was difficult for participants to look at certain aspects of themselves because of the urges to avoid associated with shame: “I didn’t want confirmation that I was a creep” (McEvoy & Daniluk, 1995, p. 225).

Judgements about coping

A minor theme emerged as a paradox in the literature: alongside participants’ recognition of how much they had to cope with, there was a narrative of ‘I should be able to cope with this’ and it was difficult for participants to be self-compassionate: “I’m nearly 45 years old, for God’s sake deal with this” (Chouliara et al., 2014, p. 73). SCEs were borne out of the psychological consequences of the abuse and how they dealt with it, as well as the abuse itself: participants “blamed themselves and felt guilty” (Chouliara et al., 2014, p. 73) if they thought they were not coping. This suggested that SCEs not only formed a core part of participants’ difficulties but were also implicated in participants’ relationship with their difficulties.

Participants anticipated judgement about how they coped with the consequences of the abuse, mental health difficulties and use of services: “[you] don’t want neighbours to know that you’re . . . seeing [a] counsellor they’d call you mental cases” (Chouliara et al., 2014, p. 73). In response, participants withdrew and hid these aspects of their lives: “[An old

school friend] contacted me on Facebook and I didn't contact him back...I just feared that if I told him I'd experienced mental illness he'd just think I was nuts or something, wouldn't like me, wouldn't accept me" (Dorahy & Clearwater, 2012, p. 163). This coping mechanism denied participants the opportunity to experience any positive consequences of allowing others to see their vulnerability.

Overcoming guilt and shame

Despite the pervasiveness of SCEs participants found that it was possible to overcome them: "just because your sneakers got muddy...doesn't mean you can't rinse them off and get them back clean" (Senn et al., 2017, p. 501). This represents another paradox within the literature. SCEs were both inescapable and something that must be overcome as part of recovery. Not only was it possible to overcome guilt and shame, doing so was a "cornerstone in their healing" (McEvoy & Daniluk, 1995, p. 225): "it was necessary to reject shame and guilt, as well as feelings of self-blame for the abuse, in order to move on" (Senn et al., 2017, p. 501). In order to overcome the pervasiveness of SCEs, participants needed to develop a new narrative of themselves as someone whose wellbeing matters: "they have to get the F— it mentality, you know, like hey, hey, I'm protecting myself, I love myself, I'm saving my life" (Senn et al., 2017, p. 501).

One study noted that shame could gradually reduce as the person matured, but for many participants, disclosure was a key step in overcoming SCEs and ultimately in their recovery. For participants who disclosed and received a supportive response "this experience had a huge impact on their feelings of guilt, shame, self-blame, and defectiveness", allowing them to access support (MacIntosh et al., 2016, p. 604). This could become a virtuous cycle: a de-shaming response could lead to "increased possibilities of disclosing to others" (MacIntosh et al., 2016, p. 604), which could further reduce shame: "I no longer feel like I'm to blame.....I'm kind of quite happy to talk about it to people because I'm not ashamed of

it” (Chouliara et al., 2014, p. 74). For one participant this had a profound impact on her recovery: “it gave me the strength to face my abuser and do what I had to do” (MacIntosh et al., 2016, p. 604).

Responses to disclosure could be de-shaming when the recipient was able to tolerate what they were told and not hide from it or suggest it should be kept hidden. A major component of this was being believed: “he didn’t call me a liar when I told him, he didn’t doubt my word” (MacIntosh et al., 2016, p. 604). A second major component was receiving a message that it is OK to talk about their experiences, rather than “you shouldn’t be telling people that...like it’s dirty or bad” (MacIntosh et al., 2016, p. 604).

Quality appraisal

The results of the quality appraisal are shown in Tables 3 to 6. Regarding the research team, little information was provided about who conducted interviews and what participants knew about them. Regarding study design, little was reported about where data collection occurred, who was present, content of interview schedules, whether field notes were made, and whether data saturation was considered in determining sample sizes. Information was also lacking concerning data analysis. For many studies it was unclear how bias was addressed, such as how many researchers had been involved in coding and analysis, and coding trees were not provided. While the studies’ findings were generally consistent with the data presented, there were some instances where labels for SCEs were used interchangeably or inaccurately.

Discussion

This review synthesised the qualitative literature on experiences of SCEs among survivors of CSA. The fourteen studies included male and female survivors, mostly recruited from survivors’ services. Three of the studies focused on SCEs as their primary topic, and 11

contained individual themes about SCEs. Three themes emerged: relating to self, relating to others, and recovery.

Participants perceived themselves as fundamentally bad and responsible for the abuse. This was associated with shame and guilt, respectively, consistent with Tracy and Robins' (2004) model of SCEs, in which stable and global internal causes of events, incongruent with the person's ideal self, produce shame, and unstable and specific internal causes produce guilt. However, the findings suggested additional complexities. Guilt about not stopping the abuse lead to shame about themselves as people and begged the question 'what does that mean about me?'. There was an apparent double-bind: the survivor could see themselves as an innocent victim, but have to face their own powerlessness, or see themselves as responsible and fundamentally bad, and face crushing guilt and shame. For many it seemed more tolerable to see the self as bad than as powerless and so internal attributions were made, leading to shame or guilt. For some, guilt seemed to serve a purpose in that it maintained a sense that they could have acted differently, meaning they were not fundamentally flawed, and could protect themselves in future. Previous research has found that guilty cognitions are more prevalent and more strongly associated with post-traumatic stress for people who had less control during their trauma (Raz, Shadach & Levy, 2018; Solomon, Avidor & Mantin, 2015). Attributing an event to either stable or unstable and either global or specific features of the self may not only be a bottom-up cognitive process grounded in how the individual perceives events, but may also involve top-down processes in an attempt to protect the self. If guilt serves the purpose of defending against a sense of helplessness, survivors may need support to develop ways to feel in control of their experiences, as well as to understand that the abuse was not their fault (Raz et al., 2018).

Relating to others was another key theme, representing both an opportunity and a threat, with the power to both heighten and dampen SCEs. This is an example of what Lee et

al. (2001) refer to as secondary shame. Lee et al. (2001) hypothesise that trauma leads to SCEs via two mechanisms: primary emotions elicited by the nature of the event itself, and secondary emotions developed from the meaning of an event.

SCEs were both a cause and a consequence of withdrawal from others. It felt necessary to keep apart from others to avoid triggering shame, but participants also felt shame about withdrawing, leaving them with a powerful yearning for closeness. This echoes Herman's writing about the dialectic of trauma, in which survivors swing between withdrawal and a need for intimacy, driven by the urge to protect the self through isolation and then through desperately needed protective relationships (Herman, 1992). "Symptoms" of post-traumatic stress can be viewed as adaptations to damaging circumstances that now cause difficulty (Elliott, Bjelajac, Fallot, Markoff & Reed, 2005; Kezelman & Stravropoulos, 2012). These strategies also maintained SCEs as participants missed out on opportunities to experience themselves coping or others as accepting.

The third theme was around recovery. SCEs were experienced as both inescapable and as essential in recovery. Connection with others was an instrumental part of overcoming SCEs. This is in line with findings on recovery from shame in the general population (Van Vliet, 2008). The studies in the current review focused on participants' experiences of SCEs, rather than the mechanisms by which they were overcome, reflecting the phenomenological approach of many of them. Future research should examine whether other mechanisms identified in the general population also apply to survivors of CSA as they may not be transferable. For example, Van Vliet (2009) found that moving from internal to external attributions helped a general population sample to overcome shame. As discussed above, lack of control regarding trauma can be deeply distressing and developing external attributions could increase feelings of helplessness. Van Vliet (2009) also found that moving from global to specific internal attributions reduced shame. This would require sensitive management for

trauma-related shame, where attributing a traumatic event to characteristics of the survivor could amount to victim-blaming.

The findings highlight many factors that could make it difficult for survivors of CSA to tolerate therapy, which requires feeling worthy of help, personal disclosure, tolerating being seen by another, negotiating power imbalances, and resilience to ruptures in the therapeutic relationship. Perhaps unsurprisingly, dropout from therapy among survivors of sexual abuse is particularly high (Harte, Hamilton & Meston, 2013; Kessler, White & Nelson, 2003). Trauma-informed services based on an understanding of the relational impact of trauma and the importance of empowerment and personal choice and control may help survivors to access therapy (Elliott et al., 2005).

However, these needs are relevant beyond just clinical practitioners working in trauma-informed mental health services. The findings highlight that accessing healthcare of any kind may be more difficult for survivors of CSA. Any staff member interacting with service users needs to understand the current distress that can be caused by historical trauma, and how interacting with services can trigger distress and coping strategies. For example, as gatekeepers to services, reception staff play a vital role in shaping how services are experienced (Schachter, 2008). Training appropriate for particular job roles may help to increase staff knowledge and confidence and improve client outcomes (Purtle, 2018), such as the Scottish Psychological Trauma Training Plan currently backed by the Scottish government (NHS Education for Scotland, 2017; NHS Education for Scotland and Scottish Government, 2019).

There are a number of limitations to the work summarised in this review. The papers provided little information about interviewers, interview setting or schedules. This makes it difficult to understand how the research context may have influenced the findings. That many of the studies recruited through survivors' services may have influenced what participants felt

comfortable discussing due to concerns about confidentiality. On the other hand, familiarity with the setting may have increased disclosure. Future studies should provide information on the setting and how this may have shaped the interviews. This would enable understanding of differences between study findings and possible reasons for topics not covered. For example, few studies mentioned SCEs within therapeutic relationships. It might be that this was not a difficulty for participants, or that it was not in the interview schedule, or that participants did not feel comfortable to discuss this due to perceived links between the research and their support service.

Many studies did not give detail on how many researchers coded data, or on the coding tree. As a result, it is not possible to fully assess the validity of the analyses. Many were very descriptive and provided limited analysis, particularly those with only one relevant theme, meaning further complexities in the data may be obscured. Two studies contributed more than others (Dorahy & Clearwater, 2012; Rahm et al., 2006). However, this may be expected as these were the two that specifically aimed to study SCEs.

There are also considerations around the samples. Participants may have been a self-selecting group of people who had sufficiently overcome the impacts of SCEs to take part in research. On the other hand, most studies recruited from survivors' services. While this is a convenient method of recruitment, results may be biased towards those people experiencing higher levels of distress for whom SCEs are more problematic.

A further limitation is that the searches, analysis and quality appraisal were carried out by a single reviewer. In the original paper describing thematic synthesis, multiple reviewers coded the data (Thomas & Harden, 2008), and independent searching and appraisal by more than reviewer is recommended to optimise validity (Sandelowski, 2007). Resources were not available for this in the current thesis, which may have impacted the validity of the findings. To mitigate against this, searches were developed with a specialist librarian, and

study selection and analysis were discussed with supervisors. For example, discussions considered how to determine whether papers qualified as primary research, and whether they met the inclusion criterion of containing a substantial piece of text concerning SCEs. Themes and sub-themes were reviewed by both research and field supervisors.

The review also differed from Thomas and Harden's method in how quality was appraised. Thomas and Harden (2008) drew upon four published guidelines, including those specific to research with children. Due to the adult population in the current review this was not considered appropriate, and the COREQ was chosen, which draws upon 22 existing tools.

Despite these limitations, the studies had several strengths. Studies tended to transparently report contrasting cases and themes and to use appropriate methodologies, most commonly phenomenology. Several studies sought feedback on the findings from participants or other survivors, which may be particularly important when researching such nuanced and sensitive experiences.

The quality of the analysis must also be considered. The researcher cannot be removed from the research process and it is possible that the themes selected were shaped by my pre-conceptions about SCEs and their meaning for survivors. This was managed by ensuring that initial codes were descriptive and grounded in the data, and by valuing themes that emerged across multiple studies. When developing analytical themes, participant quotes were continuously returned to, ensuring that the analysis remained connected to the data.

Given the importance of cultural factors in how SCEs are experienced (Wong & Tsai, 2007) the results are likely to be specific to the cultural setting of the studies. The papers were overwhelmingly from a Western perspective. However, a number of the studies were in very particular populations, such as people brought up in the Catholic faith (Collins et al., 2014). These populations might be expected to have very particular experiences around

SCEs. As themes were only selected where they emerged from several studies, the results of the review are not expected to be unduly biased by any individual study.

Survivors viewed SCEs as both a hindrance to and as essential to recovery and it may be fruitful to explore this further. For example, the therapeutic relationship is in itself exposing and potentially shame-inducing and may be distressing for those most in need. Exploring survivors' experiences of SCEs within the therapeutic relationship may provide insight into how services can best support survivors. Given the finding that SCEs are even present in interactions with other survivors, further research into experiences of therapy groups may also be beneficial.

The review has implications for how research recruiting survivors of sexual abuse is conducted. Findings suggest that research interviews can be a shaming experience. Structuring them to maximise survivors' control and minimise a sense of otherness and powerlessness is vital in enabling survivors to have their voice represented in the research literature.

As the current studies tended to recruit from survivors' services, research exploring whether the findings are also relevant to survivors not involved in services would be beneficial. This may provide insight into the role that SCEs play at different points in the recovery journey.

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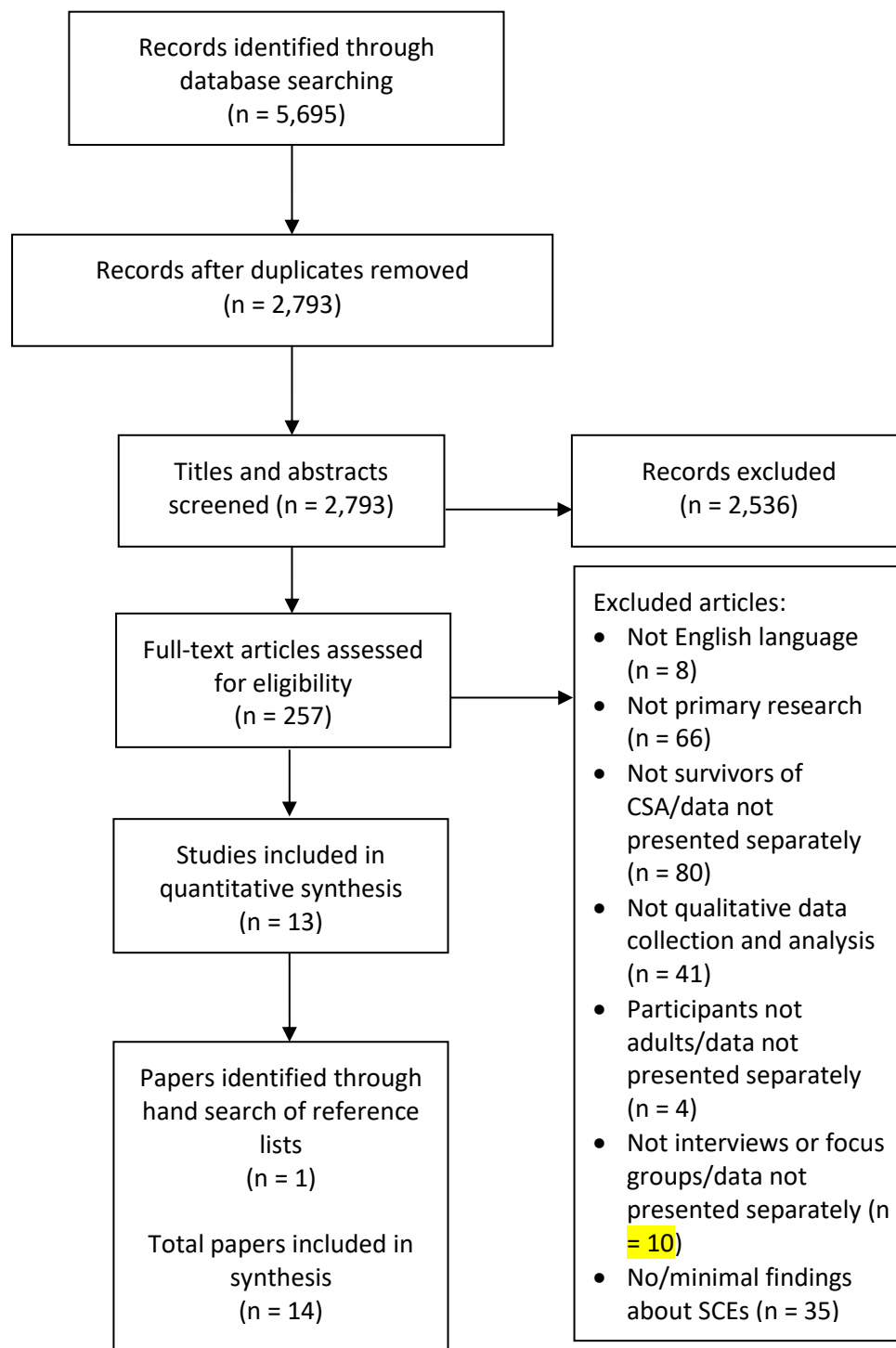


Figure 1: PRISMA Flow Diagram

Table 1: Search terms and inclusion/exclusion criteria

Concept	Search terms	Inclusion criteria	Exclusion criterion
Childhood sexual abuse	“sex* abuse*” “child abuse” rape* “sex* assault*” “sex* violen*” “sex* victim*” “sex* trauma*” “sex* offens*” “sex* offenc*”	<ul style="list-style-type: none"> • Primary research using qualitative interviews or focus groups and qualitative analysis methods; 	Papers were excluded if relevant results could not be extracted from wider data sets, e.g. if results for survivors of CSA could not be separated from those for survivors of other forms of abuse.
SCEs	“self conscious emotion” Shame Guilt embarrass* humiliat* “self disgust” Pride hubris	<ul style="list-style-type: none"> • Published in the English language; • Participant group of adult survivors of CSA; • At least one whole relevant theme, or substantial piece of text if not using themes, concerning SCEs. 	

Table 2: Characteristics of included studies

Study	Title	Country	Objectives	Themes Extracted for Current Review
Chouliara (2014)	Recovering from childhood sexual abuse: A theoretical framework for practice and research	UK	To elicit the lived experience of and propose a theoretical model of personally meaningful recovery among survivors of childhood sexual abuse	Shame, aloneness and social stigma Disclosing and shifting shame Over self-reliance, over-vigilance and guilt
Collins (2014)	Catholicism and childhood sexual abuse: Women's coping and psychotherapy	USA	To understand survivors' experiences of CSA and recovery from it within the context of Catholicism	Catholic guilt: "How bad I was"
Darlington (1995)	'Seeing that I am a person': Self and recovery among women sexually abused as children	Australia	To understand the meaning of experiences for survivors of CSA, focusing on disturbances of sense of self and the process of reparation of the self	Sense of shame
Dorahy (2012)	Shame and guilt in men exposed to childhood sexual abuse: A qualitative investigation	New Zealand	To understand the lived experience of male adults who have a CSA history, with a focus on shame and guilt	Self-as-Shame (Foundations of Self-as-Shame; Fear of exposure; Temporary antidote: Connection)
Ganzevoort (2002)	Common themes and structures in male victims' stories of religion and sexual abuse	Netherlands	To understand the experiences and interpretations of religious and sexual abuse among male survivors of CSA	Guilt and innocence
Hunter (2011)	Disclosure of child sexual abuse as a life-long process: Implications for health professionals	Australia	To understand the process of disclosing CSA	Shame as a barrier to disclosure, especially for boys Shame about hidden homosexuality Shame of becoming homosexual Stigma of being labelled as homosexual Shame and feeling responsible
Lisak (1994)	The psychological impact of sexual abuse: Content analysis of interviews with male survivors	Canada	To cross-validate previous qualitative findings about the impact of CSA among men	Self-blame/guilt Shame/humiliation
MacIntosh	"I was like damaged, used goods":	Canada	To understand survivors' experiences	Two themes stated to come under

(2016)	Thematic analysis of disclosures of childhood sexual abuse to romantic partners		of disclosing their history of CSA to romantic partners	global theme of shame: Reasons for telling Impact of responses
McEvoy (1996)	Wounds to the soul: The experiences of aboriginal women survivors of sexual abuse	Canada	To understand the lived experience of Canadian indigenous women who have survived CSA	Sense of shame and guilt Sense of invalidation and cultural shame
Ogilvie (1995)	Common themes in the experiences of mother-daughter incest survivors: Implications for counseling	Canada	To explore the phenomenon of mother-daughter incest based on the real experiences of adult survivors	Shame and stigmatization
Rahm (2006)	'Disgust, disgust beyond description' – shame cues to detect shame in disguise, in interviews with women who were sexually abused during childhood	Sweden	To explore verbal expressions of overt and covert shame by survivors of CSA	Alienated (Feeling betrayed; Feeling alone; Feeling like an outsider) Inadequate (Feeling powerless; Feeling unworthy; Feeling worthless) Hurt (Being hypersensitive; Being stigmatized) Confused (Turning off) Uncomfortable (Feeling awkward; Feeling frightened) Ridiculous (Feeling different)
Saha (2011)	A narrative exploration of the sense of self of women recovering from childhood sexual abuse	UK	To understand how the sense of self develops through the recovery process after therapy	Feelings of shame and guilt
Senn (2017)	Development and refinement of a targeted sexual risk reduction intervention for women with a history of childhood sexual abuse	US	To inform the development of a sexual risk reduction programme for survivors of CSA	Shame, guilt and self-esteem
Wood (2010)	Infant feeding experiences of women who were sexually abused in childhood	Canada	To explore the effects of CSA on experiences of breastfeeding and infant feeding	Shame

Table 3: COREQ Domain 1 – Research team and reflexivity

Study	Which author(s) conducted the interview or focus group?	Researchers' credentials	What was their occupation at the time of the study?	Was the researcher male or female?	What experience or training did the researcher have?	Was a relationship established prior to the study?	What did the participant know about the researcher?	Characteristics reported about the interviewer/facilitator
Chouliara (2014)	Unstated	Unstated	Unstated	Unstated	Unstated	No	Unstated	Unstated
Collins (2014)	Unstated	Unstated	Unstated	Unstated	Unstated	No	Unstated	Unstated
Darlington (1995)	Unstated	PhD candidate	Unstated	Female	Unstated	No	Unstated	Unstated
Dorahy (2012)	1st author	Unstated	Unstated	Male	Unstated	No	Unstated	Unstated
Ganzevoort (2002)	Unstated	Unstated	Unstated	Male	Unstated	No	Unstated	Unstated
Hunter (2011)	Unstated	Unstated	Unstated	Female	Unstated	No	Unstated	Unstated
Lisak (1994)	Unstated	Unstated	Unstated	Unstated	Unstated	No	Unstated	Unstated
MacIntosh (2016)	Unstated	Unstated	Unstated	Unstated	Unstated	No	Unstated	Unstated
McEvoy (1996)	Unstated	Unstated	Unstated	Unstated	Unstated	No	Unstated	Unstated
Ogilvie (1995)	Unstated	Unstated	Unstated	Unstated	Unstated	No	Unstated	Unstated
Rahm (2006)	1st and 2nd authors	Research asst. & DrPh	Unstated	Unstated	Unstated	No	Unstated	Unstated
Saha (2011)	Unstated	Unstated	Unstated	Unstated	Unstated	No	Unstated	Unstated
Senn (2017)	Unstated	PhD	Unstated	Female	Unstated	No	Unstated	Unstated
Wood (2010)	Research asst.	Unstated	Unstated	Unstated	Unstated	No	Unstated	Unstated

Table 4: COREQ Domain 2 – Study design

Study	Methodological orientation stated to underpin the study	How were participants selected?	How were participants approached?	Sample size	How many refused to participate or dropped out?	Where were the data collected?	Was anyone present besides participants and researchers?	Important characteristics of the sample
Chouliara (2014)	IPA	Purposive	Flyer on websites of voluntary organisations and survivor support groups. Through professionals' case loads	22	Unstated	Unstated	Unstated	22 adult survivors of CSA
Collins (2014)	Phenomenology and narrative theory	Purposive	Flyers and list serves	9	One	Participant homes and offices and over the phone	Unstated	8 female adult survivors of CSA; raised Catholic with at least two years psychotherapy Age 30-60
Darlington (1995)	Phenomenology and thematic analysis	Purposive	Recruited by social workers and facilitators of support groups for incest survivors	10	None	Unstated	Unstated	10 female adult survivors of CSA Age range 19-51, mean 29
Dorahy (2012)	IPA	Purposive	First author attended support group	7	Three	Support group premises	Facilitator from men's support group	7 adult male survivors of CSA Aged 37-64, mean 49 All New Zealand European
Ganzevoort (2002)	Narrative analysis	Purposive	Unstated	12	Unstated	Unstated	Unstated	12 male adult survivors of CSA Age range 33-62, mean

								47
Hunter (2011)	Narrative enquiry	Purposive	Press releases and interviews on local radio	22	Unstated	Mutually convenient location such as community centre	Unstated	22 adult survivors of CSA, 13 men and 9 women Aged range 25-70
Lisak (1994)	Unstated, appears to be qualitative content analysis	Purposive	Posters	26	Three	Unstated	Unstated	26 adult male survivors of CSA Age range 21-53, mean 33.7
MacIntosh (2016)	Thematic analysis	Purposive	Recruited through mental health services. Unstated how they were approached.	27 and data from 19 used	None	Unstated	Unstated	27 adult survivors of CSA in or had recently been in psychotherapy, 20 women and 7 men Age range 31 - 69, mean 47
McEvoy (1996)	Phenomenology	Purposive	Letters sent to therapists and support groups. Notices in local social services agencies.	6	Unstated	Unstated	Unstated	Six adult female survivors of CSA of Canadian indigenous descent Age range 29-53
Ogilvie (1995)	Phenomenology	Purposive	Notices placed in women's centres and newspapers	3	Unstated	Unstated	Unstated	Three adult female survivors of CSA Age range 31-37, mean 34
Rahm (2006)	Unstated Looks like qualitative content analysis	Purposive	Face to face through psychotherapist assessing women for eligibility for a self-help group for women with a history of CSA the women had	10	None	Women's homes and shelter	Unstated	Ten adult female survivors of CSA Median age 41 years (range 22-57) Swedish

			made contact about					
Saha (2011)	Narrative analysis	Purposive	Leaflets and a covering letter were sent to all survivors on the current register of an NHS sexual abuse therapeutic service	4	21	Unstated	Unstated	Four adult female survivors of CSA Age range 34-61
Senn (2017)	Content analysis	Purposive	Recruited from an STI clinic. Does not state how they were approached.	10	Unstated	Unstated	Unstated	Ten adult female survivors of CSA at risk of contracting HIV Age range 22-49, average 34
Wood (2010)	Unstated, appears to be thematic analysis	Purposive	Staff and volunteers of healing centre for women sexually abused in childhood were invited to participate	6	Unstated	Unstated	Unstated	Six mothers who were survivors of CSA

Table 5: COREQ Domain 2 – Study design (continued)

Study	Interview guides provided? Pilot tested?	Repeat interviews carried out? How many?	Audio or visual recording used to collect data?	Field notes made?	Duration of interviews/ focus groups	Data saturation discussed?	Transcripts returned to participants for comment/correction?
Chouliara (2014)	Not provided	No	Unstated, presume recorded as transcribed	Yes	Unstated	Yes	Unstated
Collins (2014)	Not provided	No	Recorded	Yes	1-2 hours	Yes	No
Darlington (1995)	Not provided	Two	Taped	Unstated	2-3 hours	No	Yes, 1 st interview
Dorahy (2012)	Not provided	No	Audio recorded	Unstated	90 minutes	No	No but themes shared
Ganzevoort (2002)	Not provided	Unstated	Unstated	Unstated	Unstated	No	Unstated
Hunter (2011)	Not provided	No	Audio recorded	Unstated	90 minutes	No	Unstated
Lisak (1994)	Not provided	No	Audio recorded	Unstated	Unstated	No	Unstated
MacIntosh (2016)	Questions provided	No	Unstated, presume recorded as transcribed	Unstated	Unstated	No	Unstated
McEvoy (1996)	No	No	Tape recorded	Unstated	Unstated	No	No
Ogilvie (1995)	No	No	Tape recorded	Unstated	Unstated	No	Unstated
Rahm (2006)	No	No	Tape recorded	Unstated	1.5-2 hours	No	No
Saha (2011)	Not provided	Two	Audio recorded	Unstated	1-2 hours	No	Unstated
Senn (2017)	Topics provided	No	Audio recorded	Unstated	54 to 92 minutes	No	Unstated
Wood (2010)	No	Two	Audio recorded	Unstated	1.5 to 2 hours	Yes	Unstated

Table 6: COREQ Domain 3 – Analysis and findings

Study	Number of data coders	Description of the coding tree provided?	Themes identified in advance or from data?	Software used to manage data	Did participants provide feedback on findings?	Quotations presented and identified?	Data and findings consistent?	Major themes clearly presented ?	Minor themes or diverse cases discussed?
Chouliara (2014)	Unstated	Yes	Derived from data	Unstated	Unstated	Quotes provided but not identified	Yes	Yes	No
Collins (2014)	Two	No	Derived from data	Unstated	No but a peer debriefer independently generated themes for validation of the researcher's themes	Quotes provided and identified	Yes	Yes	Yes
Darlington (1995)	Unstated	No	Derived from data	The Ethnograph	No	Quotes provided and identified	Yes	Yes	Yes
Dorahy (2012)	Unstated	Yes	Derived from data	Unstated	Participants invited to discuss emerging findings	Quotes provided and identified	Yes	Yes	Yes
Ganzevoort (2002)	Unstated	No	Derived from data	Unstated	Yes	Quotes not provided	Quotes not provided	Yes	Yes

Hunter (2011)	Unstated	Yes	Derived from data	Nvivo	Unstated	Quotes provided and identified	Some issues, e.g. "I must have had victim written all over my face" taken as indication that participant thought he was selected by the abuser because he was homosexual	Yes	Yes
Lisak (1994)	Five initial coders coded 6 transcripts to generate themes. Three coders coded remaining 20 transcripts.	Yes	Six transcripts used to identify themes. Remaining 20 coded accordingly.	Unstated	Unstated	Quotes provided but not identified	Shame ("There's some wrong with me. There was something defective from the beginning") mislabelled as guilt	Yes	Yes
MacIntosh (2016)	Three	No	Derived from data	Unstated	Unstated	Quotes provided and identified	Yes	Yes	Yes
McEvoy (1996)	Unstated	No	Derived from data	Unstated	Yes	Quotes provided but not identified	Yes	Yes	Yes

Ogilvie (1995)	Unstated	No	Derived from data	Unstated	Yes	Quotes provided and identified	Yes	Yes	Yes
Rahm (2006)	Unstated but one additional independent co-examiner	Yes	Identified in advance according to model of indicators of shame	Unstated	Unstated	Quotes provided but not identified	Questionable consistency between Confused theme and data. Data in 'Feeling awkward' seem to suggest panic more than awkwardness	Yes	Minor themes discussed
Saha (2011)	Unstated	No	Derived from the data	Unstated	Unstated	Quotes provided and identified	Yes	Yes	Yes
Senn (2017)	2	No	Appear to be derived from data but corresponded with key model so may have been heavily influenced by this	NVivo	Unstated	Quotes provided and identified by ethnicity and age	Yes	Yes	Yes
Wood (2010)	Unstated	No	Derived from data	Unstated	No but other survivors did	Quotes provided but not identified	Yes	Yes	Yes

Appendix 1-1: Journal of Child Sexual Abuse Author Guidelines

Preparing Your Paper

Structure

Your paper should be compiled in the following order: title page; abstract; keywords; main text introduction, materials and methods, results, discussion; acknowledgments; declaration of interest statement; references; appendices (as appropriate); table(s) with caption(s) (on individual pages); figures; figure captions (as a list).

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Section Two: Empirical paper

The role of self-conscious emotions in the relationship between reluctance to disclose trauma
and posttraumatic stress

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Abstract word count: 225

Manuscript word count (excluding tables, figures, references and appendices): 7,103

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Prepared for submission to the Journal of Traumatic Stress – see Appendix 2-1 for author
guidelines

Abstract

Following a traumatic event, non-disclosure to others may be associated with increased posttraumatic stress (PTS). Recent research has suggested that non-disclosure is only problematic when due to shame. The current study examined the relationships between reluctance to disclose traumatic experiences, PTS and self-conscious emotions (SCEs) shame, guilt and self-disgust. Adults with experience of trauma ($n = 443$) were recruited online and completed measures of shame, self-disgust, guilt, reluctance to disclose and PTS. Correlation and the PROCESS model were used to test whether reluctance to disclose predicted PTS and whether this was moderated by SCEs. Reluctance to disclose was significantly correlated with PTS ($r = .54$). Shame and self-disgust, but not guilt were significantly correlated with both reluctance to disclose (shame: $r = .24$; self-disgust: $r = .34$) and PTS (shame: $r = .29$; self-disgust: $r = .45$). Self-disgust ($\Delta R^2 = .007$) but not shame ($\Delta R^2 = .004$) was found to moderate the relationship between reluctance to disclose and PTS. Among participants who reported sexual trauma, both shame ($\Delta R^2 = .024$) and self-disgust ($\Delta R^2 = .019$) moderated the relationship between reluctance to disclose and PTS. Simple slopes and Johnson-Neyman analyses showed moderation effects identified were not in the predicted direction. Reluctance to disclose predicted PTS at all but the highest levels of self-disgust/shame. This suggests that reluctance to disclose is predictive of PTS even for people low in shame/self-disgust. Clinical and theoretical implications are discussed.

After experiencing a traumatic event(s), defined in the latest edition of the Diagnostic and Statistical Manual of Mental Disorders as “actual or threatened death, serious injury, or sexual violence” (American Psychiatric Association, 2013, p. 271), some people are affected by posttraumatic stress. This might involve intrusive re-experiencing of the event, avoidance of stimuli that serve as reminders of it, and hyperarousal to possible threat (Ehlers & Clark, 2000). Although many people experience traumatic events over their lifetime (Perkonig, Kessler, Storz & Wittchen, 2000), most will recover naturally and do not go on to be affected by posttraumatic stress over the long-term (Creamer, Burgess & McFarlane, 2001; Morina, Wicherts, Lobbrecht & Priebe, 2014).

Talking to others about traumatic experiences can be central to recovery and survivors who disclose less have been found to experience worse outcomes. Across a broad range of traumas, including sexual abuse, first episode of psychosis, bereavement, military veterans, and police officers, less disclosure is associated with increased posttraumatic stress and low mood and less posttraumatic growth (Ahrens, Rios-Mandel, Isas & Lopez, 2010; Bernard & Jackson, 2006; Bolton, Glenn, Orsillo, Roemer & Litz, 2003; Carson et al., 2019; Dailey & Claus, 2001; Davidson & Moss, 2008; Jacques-Tiura, Tkatch, Abbey & Wegner, 2010; Lepore, Silver, Wortman & Wayment, 1996; Pietruch & Jobson, 2011; Schoutrop, Lange, Hanewald, Davidovich & Salomon, 2002; Taku, Tedeschi, Cann & Calhoun, 2009). Later disclosure of sexual assault is reported to predict severity of posttraumatic stress (Ruggiero et al., 2004).

Disclosure may promote recovery by providing opportunities for exposure to trauma-related internal stimuli and processing of emotions (Sloan & Marx, 2004), normalisation through mutual disclosure (Taku et al., 2009), integration of disorganised thoughts and feelings (Foa & Kozak, 1986) and eliciting support from others (see Frattaroli, 2006 for a review).

However, the relationship between disclosure and distress is not straightforward. Bedard-Gilligan, Jaeger, Echiverri-Cohen, and Zoellner (2012) found that trauma survivors meeting the criteria for PTSD differed from survivors who did not meet the criteria for PTSD on difficulty in disclosing, not in amount of disclosure. Posttraumatic stress may be particularly high in those people who want to disclose but feel unable to (Taku et al., 2009). Bedard-Gilligan et al. (2012) call for greater understanding of why some people may find disclosure more difficult or be more reluctant to disclose.

Reluctance to disclose is associated with increased posttraumatic stress, low mood, maladaptive cognitive processing and perceived social support in survivors of traumatic brain injury and violent crime, emergency service workers, and military veterans (Currier, Lisman, Irene Harris, Tait & Erbes, 2013; Köhler, Schäfer, Goebel & Pedersen, 2018; Mueller, Moergeli & Maercker, 2008; Mueller, Orth, Wang & Maercker, 2009; Pielmaier & Maercker, 2011; Stephens & Long, 1999), over and above trauma severity (Mueller et al., 2009), and across time (Mueller et al., 2008). Emphasising the importance of the social context, Pielmaier and Maercker (2011) found that even caregivers' attitudes about disclosure predict survivors' posttraumatic stress.

The response received to a disclosure is hugely important and negative responses can increase distress. The benefits of disclosure may only occur if the discloser receives a supportive response (Bolton et al., 2003; Taku et al., 2009). Receiving more stigmatising and less supportive reactions from others is associated with increased posttraumatic stress (Jacques-Tiura et al., 2010; Littleton, 2010; Orchowski, Untied & Gidycz, 2013; Ullman, 2003; Ullman & Filipas, 2001; Ullman, Filipas, Townsend & Starzynski, 2007). As a result, survivors who perceive that they have less social support are more reluctant to disclose (Köhler et al., 2018).

Shame may be a key factor in disclosure and is associated with increased posttraumatic stress following negative social reactions to disclosure (DeCou, Cole, Lynch, Wong & Matthews, 2017). Shame relates to how we are seen by a real or imagined other person (Lutwak, Panish & Ferrari, 2003) and involves evaluation of the self as fundamentally flawed (Dearing & Tangney, 2011) or bad (Gilbert, 2011; Tracy, Robins & Tangney, 2007). Shame is particularly problematic among survivors of trauma, being associated with posttraumatic stress in survivors of sexual abuse (Bonanno et al., 2002; Feiring, Taska & Lewis, 2002; Vidal & Petrak, 2007), interpersonal trauma (Bockers, Roepke, Michael, Renneberg & Knaevelsrud, 2015; Platt & Freyd, 2015; Schoenleber, Sippel, Jakupcak & Tull, 2015), physical abuse (Ellenbogen, Trocmé, Wekerle & McLeod, 2015), military combat (Crocker, Haller, Norman & Angkaw, 2016; Dorahy et al., 2013), and in refugees (Stotz, Elbert, Müller & Schauer, 2015). Bockers et al. (2015) compared three groups of women: survivors of sexual abuse who had received a diagnosis of PTSD, survivors of sexual abuse who did not have a diagnosis of PTSD, and controls who had not experienced sexual abuse. They found that shame was higher in women who had experienced sexual abuse than those who had not, and higher again in women who had experienced sexual abuse and had a diagnosis of PTSD than those who did not have a diagnosis of PTSD. Research comparing shame in survivors of different types of traumatic experiences suggests that shame may be higher in survivors of interpersonal than impersonal trauma, and particularly among survivors of sexual abuse (Amstadter & Vernon, 2008; La Bash & Papa, 2014). Shame is also higher following trauma that involved betrayal by someone close to the survivor (Platt & Freyd, 2015).

Many studies report that some survivors endorse shame as a reason for not disclosing traumatic experiences (Carson et al., 2019; Lemaigre, Taylor & Gittoes, 2017; K. G. Weiss, 2010; Zinzow & Thompson, 2011). Carson et al. (2019) asked participants to state their reasons for not disclosing and found that post-traumatic stress was higher in non-disclosers

than disclosers, but only among non-disclosers who stated that they did not disclose due to shame. Post-traumatic stress did not differ between disclosers and non-disclosers who did not disclose due to reasons other than shame. This suggests that the reasons behind a non-disclosure matter, and that those people who wish to disclose but feel too ashamed to do so may suffer increased distress (Taku et al., 2009).

This suggests that the relationship between reluctance to disclose and posttraumatic stress may be moderated by shame: reluctance to disclose may only predict posttraumatic stress among people who experience high levels of shame. The relationship between reluctance to disclose and proneness to shame has yet to be investigated.

Shame is a complex concept that is not always used in both the lay language and scientific literature in a way that is consistent with its theoretical meaning. Therefore, it is important to understand how it is used by researchers and participants in order to interpret research findings. This can be achieved through in-depth qualitative study of participants' experiences, or through quantitative measurement using validated psychometrics. In order to build on Carson et al. (2019)'s findings it may be of benefit to explore these relationships further using a validated measure of shame, rather than using a single-item (López-Castro, Saraiya, Zumberg-Smith & Dambreville, 2019). There are no known studies that test the relationship between proneness to shame and attitudes towards disclosure. This will allow precise measurement of shame and address the difficulties inherent in knowing what a participant means by the term. In addition, participants might feel shame about feeling shame – a kind of “metashame” (Scheff, 1988; Tangney & Dearing, 2011, p. 396). Using a validated scale may help to capture participants' levels of shame even if they may not label it as such themselves.

Shame is just one of the self-conscious emotions (SCEs; Tracy et al., 2007). Due to the high correlations between shame and self-disgust (Bachtelle & Pepper, 2015; Olatunji, Cox

& Kim, 2015), and between shame and guilt in survivors of trauma (e.g. Feiring & Taska, 2005; Stotz et al., 2015), it is possible that effects of one may be driven by the other. Therefore, guilt and self-disgust will also be measured, in order that their relationships with reluctance to disclose and posttraumatic stress can also be assessed and can be controlled when assessing the impact of shame. Whereas shame involves a global negative evaluation of the self, guilt involves negative evaluation of a particular behaviour (Lewis, 1971). Self-disgust is distinct from shame in that the feelings directed towards the self are specifically of disgust, and can include disgust regarding the physical self and behaviour (Powell, Simpson & Overton, 2015).

For several reasons, the current study will measure attitudes towards disclosure, rather than whether or not participants have made a disclosure. First, disclosure is not a one-time event, but may continue for the persons' lifetime. For many traumas, the idea of disclosure either having happened or not at all may not apply as other people may be aware of the event(s) through proximity, even though the survivor feels unable to talk about it. Furthermore, as Bedard-Gilligan et al. (2012) have found, it may be the difficulty of disclosure that is important, rather than whether it has happened. Finally, it is unclear what never having disclosed means in the context of a research study in which participants are asked to report their traumatic experiences.

Psychometrics can measure state shame i.e. participants' current levels, shame in relation to an event such as trauma, and participants' proneness to experiencing shame. As the intention of the study was not to manipulate participants' SCEs at the time of participation, state shame was not be measured. Trauma-related measures of shame and guilt were identified in the Trauma-Related Guilt Inventory (TRGI; Kubany et al., 1996) and Trauma-Related Shame Inventory (Oktedalen, Hagtvet, Hoffart, Langkaas & Smucker, 2014)

. However, many of the questions in the TRGI too general, e.g. “I am still distressed about what happened”, and so it may not specifically measure guilt.

Shame-proneness and event-related shame are correlated in trauma-exposed populations (Saraiya & Lopez-Castro, 2016). Semb, Strömsten, Sundbom, Fransson, and Henningsson (2011) suggest that pre-existing shame-proneness leads to increased trauma-related shame, which Feiring and Taska (2005) report then decreases naturally over time. As the current study aims to measure attitudes towards disclosure on an ongoing basis, not one-time disclosure at the time of the event, it was considered appropriate to measure proneness to shame and guilt, as this is likely to be more stable.

Therefore, the current study will measure post-traumatic stress, attitudes towards disclosure, and proneness to shame, in order to test whether shame is significantly associated with reluctance to disclose, and whether shame moderates the relationship between reluctance to disclose and posttraumatic stress. Self-disgust and guilt will also be measured, in order to control for potential confounding variables. A diagram of the moderation model being tested is shown in Figure 1. The following hypotheses will be tested:

1. Reluctance to disclose will be positively correlated with posttraumatic stress;
2. Shame, guilt and self-disgust will each be positively correlated with posttraumatic stress;
3. Shame will be positively correlated with reluctance to disclose;
4. The relationship between reluctance to disclose and post-traumatic stress will be moderated by shame when controlling for self-disgust: reluctance to disclose will only predict posttraumatic stress in those people showing high levels of shame.

Analyses on the role of self-disgust and guilt in the relationship between reluctance to disclose and posttraumatic stress will also be conducted. However, as there is no known

existing research on the relationships between guilt and self-disgust and disclosure of trauma, these analyses will be exploratory.

Hypotheses 1 to 3 will also be tested in a subgroup analysis, including only those participants who have experienced a sexual assault or abuse. Given the high levels of stigma associated with sexual abuse, the frequent experiences of being disbelieved following disclosure, the often prolonged nature of sexual abuse and frequent betrayal by caregivers, and the complex interpersonal difficulties it can lead to, shame may be particularly salient in survivors of sexual abuse (Amstadter & Vernon, 2008; Briere & Elliott, 2003; Kennedy & Prock, 2016).

Method

Participants

Participants were English speaking adults (aged 18 or over) of any gender who self-identified as having experienced a traumatic event or events at any age. The definition of a traumatic event was guided by Criterion A in DSM-5 (American Psychiatric Association, 2013), i.e. exposure to death, threatened death, actual or threatened sexual violence or actual or threatened serious injury, as experienced by the person themselves, witnessed in person happening to someone else, happened to someone close to them, or exposure as part of their job. Participants were asked to complete the Life Events Checklist-5 (Weathers et al., 2013) to determine whether they met these criteria.

Participants were recruited via online forums, social media and websites for survivors of trauma and for the sharing of research. A research poster and short advertisement were shared through these sources.

Procedure

Participants accessed the survey through Qualtrics software. This first presented study information. Participants were asked to give informed consent by ticking that they understood

the nature of the study and what would happen to their data. Participants were asked to complete demographics questions and were then presented with a series of measures in the same order, described in the Materials section below. Aside from indicating their age, gender and nationality, participants had the option of using a ‘Prefer not to say’ response for all questions. After completing the questionnaires, participants were shown a Debrief sheet and had the option to follow a link to a separate survey where they could enter their email address and indicate that they would like to enter a prize draw for a £50 Amazon voucher, and/or receive information on the findings of the study. The study was given ethical approval by Lancaster University’s Faculty of Health and Medicine Research Ethics Committee.

Materials

Demographics.

Participants were asked to indicate their age, gender, nationality, highest level of education completed and current employment status.

Traumatic experiences.

The Life Experiences Checklist for DSM-5 (LEC-5; Weathers et al., 2013) is a self-report measure in which participants indicate which of 16 potentially traumatic events they have either experienced directly, witnessed, learned of happening to someone close to them, or that they have been exposed to as part of their job. The LEC has been shown to have satisfactory test-retest reliability and convergence with other measures of traumatic experiences (Gray, Litz, Hsu & Lombardo, 2004), with minimal updates between the LEC and LEC-5. Participants can also select that they have experienced “Any other very stressful event or experience”, with a free text box provided for them to enter details if they wish to.

Trauma-related distress.

Participants’ posttraumatic stress was measured using the Impact of Events Scale – Revised (IES-R; D. S. Weiss & Marmar, 1997). The IES-R is a 22-item self-report measure

that asks participants to indicate how distressing each of a list of difficulties associated with posttraumatic stress have been in the past seven days, on a five-point scale from 'Not at all' to 'Extremely'. The items are grouped into three subscales: Avoidance, measuring effortful avoidance of reminders of the trauma (eight items; $\alpha = .86$), Intrusions, measuring repeated and unwanted thoughts about the trauma (eight items; $\alpha = .90$) and Hyperarousal, measuring signs of physiological hyperarousal (six items; $\alpha = .85$), as well as giving a total score ($\alpha = .95$; Beck et al., 2008). The IES-R is one of the most widely used measures of posttraumatic stress and has been used with participants who have experienced a broad range of traumatic events. The IES-R has demonstrated good reliability and validity (Beck et al., 2008).

Attitudes about disclosure.

Attitudes towards disclosure were assessed using the Disclosure of Trauma Questionnaire (DTQ; Mueller, Beauducel, Raschka & Maercker, 2000). This is a 34-item questionnaire measuring dysfunctional attitudes towards disclosure across three subscales: Reluctance to Talk, measuring aversion to telling others about the trauma (13 items), Urge to Talk, measuring the need to tell others about the trauma (11 items) and Emotional Reactions During the Disclosure, measuring strong emotional experiences while telling others about the trauma (10 items). Reluctance to Talk and Urge to Talk are reported to be independent of each other, while Emotional Reactions is moderately correlated with (Köhler et al., 2018; Mueller et al., 2000). The DTQ has been used with a range of trauma survivors, including combat veterans, survivors of political imprisonment, emergency service workers and victims of crime. The DTQ shows good internal consistency ($\alpha = .82-.88$), reliability and validity and predicts later posttraumatic stress (Mueller et al., 2000; Mueller et al., 2008).

SCEs.

SCEs were measured using The Guilt and Shame Proneness Scale (GASP; Cohen, Wolf, Panter & Insko, 2011) and The Self Disgust Scale-Revised (SDS-R; Powell, Overton & Simpson, 2015).

The GASP is a 16-item measure, with eight items concerning guilt and eight concerning shame. Conceptualisations of shame and guilt within the GASP are consistent with Tracy and Robins' (2004) model: shame follows evaluation of the whole self while guilt follows evaluation of specific behaviours. As well as this self-behaviour distinction, the GASP also incorporates the public-private distinction, with shame conceptualised as a public emotion, and guilt as private. The GASP measures behavioural and cognitive and affective indicators of shame and guilt. The GASP shows good internal consistency ($\alpha = .61-.71$) reliability and validity (Cohen et al., 2011). Wording of two items within the GASP was adjusted in order to make it less USA-specific. Item two was changed from "You are privately informed that you are the only one in your group that did not *make the honor society* because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible about attending school?" to "You are privately informed that you are the only one in your group that did not *win an award* because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible about attending school?". Item nine was changed from "You secretly commit a *felony*. What is the likelihood that you would feel remorse about breaking the law?" to "You secretly commit a *crime*. What is the likelihood that you would feel remorse about breaking the law?".

The GASP measures shame and guilt, but not self-disgust. The SDS-R was therefore used for this purpose, which gives a total measure of self-disgust concerning both behaviour and the physical self. The SDS-R shows good reliability and validity and internal consistency

($\alpha = 0.92$; Powell, Overton, et al., 2015) and has been used in survivors of trauma (Brake, Rojas, Badour, Dutton & Feldner, 2017).

Data analysis

Data analysis was carried out using SPSS 25. There were two types of missing data: those where data were missing for a whole measure(s), and those where participants had completed a measure but selected 'Prefer not to say' on an individual item(s). Whole measures were unavailable where the participant had stopped participating early or had selected 'Prefer not to say' to all items on a measure. Of the 445 participants who met inclusion criteria, 96 participants did not complete all measures, including three who selected 'Prefer not to say' for a whole measure. Participants who had whole measures missing were excluded pairwise from analyses. T-tests and Pearson's chi-square tests were used to test for differences between completers and non-completers. Within the completed measures, 0.65% of data were 'Prefer not to say' missing, ranging from 0.41% on the IES-R to 0.99% on the DTQ. Where participants had selected 'Prefer not to say', that participant's mean on the other items on the subscale were used to replace the missing data.

Data were checked for meeting the assumptions of normality, homoscedasticity, linearity, independence of residuals and multi-collinearity. Zero-order correlations were then examined. Correlations and one-way ANOVAs were used to identify potential confounding variables that needed to be controlled for in the moderation analyses. Regression analyses were then used to test the moderation models, using the PROCESS plugin for SPSS (Hayes, 2017). Cronbach's alpha was calculated for each measure and subscale used and are shown in Table 5.

Results

Data checking

Data were checked for outliers and influential cases. Possible outliers were identified by checking the standardised residuals between observed and predicted values of the outcome variable, with values above 3.29 requiring further investigation (Field, 2005). Leverage values above 0.03 were used to identify cases with undue influence on predicted values of the outcome variable (Stevens, 2002), and covariance ratios below 0.97 were used to identify cases with undue influence on the variance of the regression parameters (Field, 2005). Seventeen cases were flagged as possible outliers. On inspection, two cases that did not appear to be genuine responses were excluded from all further analyses.

Multicollinearity was checked for using variance inflation factor (VIF) and tolerance statistics. VIF statistics were well below 10 and tolerance statistics were well above 0.20 suggesting no problems with multicollinearity (see Table 1; Field, 2005). Bivariate correlations were also checked and no predictor and outcome variables were correlated with each other above $r = .70$. Examination of a scatterplot of standardised residuals suggested that the data met the assumption of homoscedasticity (see Figure 2). The Durbin-Watson test statistic was within acceptable bounds for the sample size and number of predictors suggesting that the data did not violate the assumption of independent residuals (see Table 1; Durbin & Watson, 1951). Due to the large sample size and the central limit theorem, the sampling distribution was not required to be normal (Field, 2005; Ghasemi & Zahediasl, 2012). However, examination of standardised residuals and P-P plot (see Figure 3) suggested that the assumption of normally distributed residuals was met (Field, 2005). As standardised residuals appeared to meet assumptions of homoscedasticity and normality, the data did not violate the assumption of linearity of predictors. Cronbach's alphas were acceptable and comparable with previously published values.

Participants

Six hundred participants began the survey and 445 consented to participate, completed the demographic data and met inclusion criteria. After removing two outliers, the final sample was 443 participants, of whom 347 completed all measures. Demographics are shown in Table 2 for the full sample of 443 and for the sample of 347 with complete measures. The mean age of participants was 30-31 (range 18-67) across the two samples. Participants were mainly female and of UK or USA nationality. Participants tended to be employed or in full-time education and most had completed at least secondary education.

The 347 completers were compared against the 98 non-completers (including the two outliers), and were found not to differ significantly on age, gender, nationality, education, employment or total number of trauma types experienced. However, completers ($M = 3.89$, $SE = 0.12$) reported ‘Happened to me’ regarding significantly more trauma types ($t(443) = 2.69$, $p = .007$) than non-completers ($M = 3.32$, $SE = 0.24$). Results are shown in Table 10.

Participants’ trauma experiences are shown in Table 3. The most commonly reported traumas were transportation accident, physical assault, sexual assault, and other uncomfortable or unwanted sexual experience, as experienced by the participant themselves. Many participants also indicated direct experience of other traumas not identified in the pre-specified traumatic experiences. The most common of these were birth trauma and emotional abuse/bullying.

Table 4 shows participants’ scores on the survey measures. Mean scores on the IES-R were high with 70% scoring above cut-offs for PTSD (33-34; Creamer, Bell & Failla, 2003; Morina, Ehring & Priebe, 2014). Scores on the DTQ were highest for the Reluctance to Talk subscale. Across the DTQ, scores were substantially higher than reported in some previous studies, but were more similar to those reported for former political prisoners in the original study (Mueller et al., 2000) and for victims of crime in Mueller et al. (2009). Scores on the

GASP were slightly higher than those in the original study (Cohen et al., 2011). Scores on the SDS-R were higher than in previous studies, (e.g. Brake et al., 2017; Olatunji, Ebesutani, Haidt & Sawchuk, 2014). However, these used the unrevised version of the measure (Overton, Markland, Taggart, Bagshaw & Simpson, 2008).

Correlation analyses

Correlation analyses were used to test hypotheses 1 to 3. Table 5 shows results of the bivariate correlation analyses. Reluctance to disclose was significantly correlated with IES-R ($r = .43, p < .001, n = 375$), supporting Hypothesis 1. Shame ($r = .29, p < .001, n = 354$) and self-disgust ($r = .43, p < .001$), but not guilt ($r = .03, p = .547, n = 354$), were positively correlated with total impact of events scores. Therefore, Hypothesis 2 was partially supported. Reluctance to disclose was significantly correlated with shame ($r = .18, p = .001, n = 355$), supporting Hypothesis 3. These results suggest that reluctance to disclose is associated with posttraumatic stress, and with proneness to shame and self-disgust, but not guilt.

Moderation analyses

Bivariate correlations and one-way ANOVAs were used to identify and variables that may have been potential confounders in the moderation analyses by identifying any that correlated significantly with both predictor and outcome. None of the demographic variables appeared to be potential confounders. This was confirmed in both the whole sample of 443 and the sample of complete cases of 347. However, as self-disgust and shame were both correlated with total IES-R and reluctance to disclose, they were each controlled when examining the other as a moderator of the relationship between reluctance to disclose and posttraumatic stress. As guilt-proneness was not significantly correlated with reluctance to disclose or posttraumatic stress it was not examined as a moderator of their relationship.

To test Hypothesis 4 and to conduct exploratory analysis on the role of self-disgust in the relationship between reluctance to disclose and posttraumatic stress, regression analyses using PROCESS (Hayes, 2017) were run, examining whether shame and self-disgust moderated the relationship between reluctance to disclose and posttraumatic stress. Moderation analyses were run using only those participants who had completed all measures ($n = 347$). Values of the predictor and moderator variables were mean centred in order to allow interpretation of the regression coefficients. Results of these analyses are shown in Tables 6-9. The following moderation models were tested:

- Is the relationship between reluctance to disclose and posttraumatic stress moderated by shame, when controlling for self-disgust?
- Is the relationship between reluctance to disclose and posttraumatic stress moderated by self-disgust, when controlling for shame?

Shame.

Overall, reluctance to disclose, shame, and the interaction between them explained 30.9% of the variance in posttraumatic stress. Both reluctance to disclose, $b = 0.91$, $t(342) = 6.39$, $p < .001$, and shame, $b = 3.01$, $t(342) = 2.76$, $p = .006$, were significant predictors of posttraumatic stress. However, the interaction between them was not significant, $\Delta R^2 = .004$, $b = -0.19$, $t(342) = -1.38$, $p = .168$. These analyses included self-disgust controlled as a covariate. The results suggest that while shame significantly predicts posttraumatic stress, it does not moderate the relationship between disclosure attitudes and posttraumatic stress.

Self-disgust.

Overall, reluctance to disclose, self-disgust, and the interaction between them explained 31.3% of the variance in posttraumatic stress. Both reluctance to disclose, $b = 0.90$, $t(342) = 6.35$, $p < .001$, and self-disgust, $b = 0.62$, $t(342) = 6.33$, $p < .001$, were significant predictors of posttraumatic stress. The interaction between reluctance to disclose and self-

disgust was also significant, $\Delta R^2 = .007$, $b = -.02$, $t(342) = -2.56$, $p = .011$, suggesting that self-disgust did moderate the relationship between self-disgust and posttraumatic stress.

These analyses included shame controlled as a covariate.

The significant interaction was probed using the pick-a-point and Johnson-Neyman approaches. The pick-a-point approach was carried out by examining the conditional effects of reluctance to disclose at three levels of self-disgust: the mean and at one standard deviation above and below the mean. Reluctance to disclose significantly predicted posttraumatic stress at all three levels. Johnson-Neyman analyses were used to identify the regions of self-disgust scores at which reluctance to disclose did and did not significantly predicted posttraumatic stress. An increase in reluctance to disclose was associated with a significant increase in posttraumatic stress at all levels of self-disgust below 111.69. This indicates that reluctance to disclose predicted posttraumatic stress apart from when self-disgust was very high.

Subgroup analysis: Survivors of sexual abuse.

Subgroup analyses were run on the 243 participants who responded ‘Happened to me’ on question 8 of the LEC-5 indicating Sexual assault. As for the complete sample, shame and self-disgust were both significantly correlated with posttraumatic stress (shame: $r = .33$, $p < .001$; self-disgust: $r = .44$, $p < .001$) and reluctance to disclose (shame: $r = .20$, $p = .002$; self-disgust: $r = .29$, $p < .001$), but guilt was not (posttraumatic stress: $r = .07$, $p = .289$; reluctance to disclose: $r = .11$, $p = .103$). Therefore, moderation analyses were run using shame and self-disgust, but not guilt.

Self-disgust.

Both reluctance to disclose, $b = 0.77$, $t(238) = 6.10$, $p < .001$, and self-disgust, $b = 0.53$, $t(238) = 4.94$, $p < .001$, were significant predictors of posttraumatic stress. The interaction between reluctance to disclose and self-disgust was also significant, $\Delta R^2 = .019$, $b = -0.04$, $t(238) = -2.58$, $p = .010$. These analyses included shame controlled as a covariate.

Probing of the interaction identified a similar pattern to those for the complete sample. Reluctance to disclose was predictive of posttraumatic stress at all but the higher levels of self-disgust, up to a score of 104.90. The effect of reluctance to disclose on posttraumatic stress was significant at the mean, $b = 0.77$, $t(238) = 4.75$, $p < .001$, and one standard deviation below the mean, $b = 1.18$, $t(238) = 5.59$, $p < .001$, but not at one standard deviation above the mean, $b = 0.36$, $t(238) = 1.52$, $p = .130$, on self-disgust.

Shame.

Both reluctance to disclose, $b = 0.81$, $t(238) = 5.07$, $p < .001$, and shame, $b = 3.08$, $t(238) = 2.47$, $p = .014$, were significant predictors of posttraumatic stress. In contrast to the analyses conducted with the complete data set, shame significantly moderated the relationship between reluctance to disclose and posttraumatic stress, $\Delta R^2 = .024$, $b = -0.46$, $t(238) = -2.91$, $p = .004$. These analyses included self-disgust controlled as a covariate.

Probing of the interaction revealed a similar pattern of results to self-disgust. Reluctance to disclose was predictive of posttraumatic stress at all but the higher levels of shame, up to a score of 5.86. The effect of reluctance to disclose on posttraumatic stress was significant at the mean, $b = 0.81$, $t(238) = 5.07$, $p < .001$, and one standard deviation below the mean, $b = 1.26$, $t(238) = 5.75$, $p < .001$, but not at one standard deviation above the mean, $b = 0.36$, $t(238) = 1.61$, $p = .108$, on shame.

Discussion

This is the first known study to examine the relationship between reluctance to disclose and proneness to SCEs. It found that among survivors of a traumatic experience, reluctance to disclose is associated with greater shame and self-disgust, and greater posttraumatic stress. This complements existing qualitative studies in which survivors report that shame is a barrier to disclosure (Carson et al., 2019; Lemaigre et al., 2017; K. G. Weiss, 2010; Zinzow & Thompson, 2011). The study also adds to existing findings that reluctance

to disclose is associated with increased posttraumatic stress, low mood and decreased perceived social support in survivors of trauma (Currier et al., 2013; Köhler et al., 2018; Mueller et al., 2008; Mueller et al., 2009; Pietruch & Jobson, 2011).

Among the whole sample, self-disgust, but not shame, moderated the relationship between reluctance to disclose and posttraumatic stress. Specifically, reluctance to disclose significantly predicted posttraumatic stress except at very high levels of self-disgust, where posttraumatic stress was high regardless of reluctance to disclose. In contrast, reluctance to disclose significantly predicted posttraumatic stress at all levels of shame. Among survivors of sexual abuse, shame and self-disgust both moderated the relationship between reluctance to disclose and posttraumatic stress. Reluctance to disclose significantly predicted greater posttraumatic stress except at very high levels of shame or self-disgust. At the highest levels of shame or self-disgust, posttraumatic stress was high regardless of reluctance to disclose. These results suggest that posttraumatic stress is higher when self-disgust and shame are higher and also when reluctance to disclose is higher. Even when shame and self-disgust were low, reluctance to disclose was associated with increased posttraumatic stress.

Therefore, the results supported hypotheses one and two, but not hypothesis three. Shame moderated the relationship between reluctance to disclose and posttraumatic stress, but only in survivors of sexual trauma. Even among this group the moderating effect of shame on the relationship between reluctance to disclose and posttraumatic stress was not as predicted. Rather than finding that reluctance to disclose only predicted posttraumatic stress when shame was high, the results suggested the reverse. People who were more reluctant to disclose experienced greater posttraumatic stress, even if they were low in shame. People who experienced high levels of shame experienced high levels of posttraumatic stress, even if they showed low reluctance to disclose.

This is in contrast to Carson et al.'s (2019) findings, who reported that non-disclosure was only associated with increased posttraumatic stress if the reason given for non-disclosure was shame. Carson et al. (2019) suggest that non-disclosure due to reasons other than shame is not linked to increased posttraumatic stress.

There are a number of factors that may explain the difference in results between Carson et al. (2019) and the current study. First, Carson et al.'s (2019) sample included only 15 people who did not disclose due to shame/embarrassment, out of a total of 56 people who did not disclose. It is difficult to draw firm conclusions from a group of this size. It also may suggest that not everyone who experienced shame about their trauma identified this as the reason for non-disclosure, and participants were not asked this directly. Revealing one's shame can be a shameful and vulnerable experience in itself (Scheff, 1988), which would require participants to be able to face their own shame internally and to be able to reveal this to another in a research context.

There are also substantial differences between the two samples. The sample in Carson et al. (2019) also reported very low levels of posttraumatic stress, with a mean score of 8.33 overall and 8.92 in disclosers, 11.93 in non-disclosers who endorsed shame and 4.68 in non-disclosers who did not endorse shame. This compares with 33.59 among people diagnosed with PTSD and 12.54 among those not diagnosed with PTSD, using the same measure (Foa, Cashman, Jaycox & Perry, 1997). In the current study, 70% of participants scored above established cut-offs for PTSD. Reasons for non-disclosure are likely to be very different for people experiencing high compared with low levels of posttraumatic stress. Carson et al. (2019) used a university sample and asked them about sexual victimisation experienced in early adulthood, meaning that the trauma is likely to have happened very recently. This may explain the relatively low levels of posttraumatic stress reported, as those people most distressed by their recent trauma may have chosen not to participate.

Aside from these methodological points, there may be many clinical reasons why reluctance to disclose may predict posttraumatic stress even in people low in shame. While the theoretical and empirical literature strongly suggests that shame is an important emotion within the formation and maintenance of posttraumatic stress (Amstadter & Vernon, 2008; DeCou et al., 2017; Harman & Lee, 2010; Lee, Scragg & Turner, 2001), it is not the only one. Social support is strongly linked to posttraumatic stress (Dai et al., 2016; Guay, Billette & Marchand, 2006; Kaniasty & Norris, 2008; Simon, Roberts, Lewis, van Gelderen & Bisson, 2019) and it may be that for some people, reluctance to disclose is a reflection of an unsupportive environment, rather than their own shame. Shame is hypothesised to lead to or maintain posttraumatic stress because of its associated tendency to withdraw and avoid internal or external reminders that might trigger the shame (Harman & Lee, 2010; Lee et al., 2001). However, participants low in shame may also use emotional avoidance as a coping strategy, in order to avoid other emotions such as fear (Ehlers & Clark, 2000). In the current study these other mechanisms may account for the significant relationship between reluctance to disclose and posttraumatic stress even among people low in shame.

The findings raise the question of why there was no significant effect of reluctance to disclose on posttraumatic stress among survivors of sexual abuse experiencing high levels of shame. These participants had the highest levels of posttraumatic stress, even if low in reluctance to disclose. It may be that even among those survivors willing to disclose, high levels of shame reduced the beneficial effects of disclosure. For example, survivors higher in shame report greater perceived negative reactions from others to their disclosure (DeCou et al., 2017), which is in turn associated with increased posttraumatic stress (Jacques-Tiura et al., 2010; Littleton, 2010; Orchowski et al., 2013; Ullman, 2003; Ullman & Filipas, 2001; Ullman et al., 2007). The stigma faced by survivors of sexual abuse may make accessing the benefits of disclosure more difficult, particularly for survivors prone to shame, who may be

more sensitive to these external influences. For these survivors the process and experience of disclosure may have been less healing, attenuating the relationship between reluctance to disclose and posttraumatic stress at high levels of shame.

The results suggest that while SCEs are important in predicting posttraumatic stress, other factors are also at play and even those survivors who are low in SCEs may be vulnerable to increased posttraumatic stress if they are reluctant to disclose. The results also suggest that just because a survivor holds positive views of disclosure they are not necessarily protected from increased psychological distress. A willingness to disclose does not in itself appear to indicate healthy adjustment following trauma and survivors may experience high levels of shame, self-disgust and posttraumatic stress even if they are willing to disclose. However, being both willing to disclose and low in shame and self-disgust appears to be protective.

The current study may provide useful insight into the newly emerging concept of self-disgust. Qualitative research on self-disgust suggests that it represents a coherent construct characterised by visceral feelings of disgust towards the self, often experienced as physical sensations such as nausea (Clarke, Simpson & Varese, 2019; Powell, Overton & Simpson, 2014). Self-disgust seems to be associated with increased posttraumatic stress (e.g. Brake et al., 2017; Rusch et al., 2011). However, this literature has tended not to control for other SCEs, limiting conclusions about whether self-disgust stands as a distinct SCE (Clarke et al., 2019). In the current study self-disgust was correlated with both shame and guilt, as would be expected given its inclusion within the SCEs. However, self-disgust significantly moderated the relationship between reluctance to disclose and posttraumatic stress, even when controlling for shame. This provides supporting evidence for the argument that self-disgust represents a distinct SCE, and suggests that it may explain additional variance in posttraumatic stress over and above the related concept of shame.

While shame and self-disgust were both correlated with posttraumatic stress, guilt was not. Previous research examining the relationships between SCEs and posttraumatic stress has been much more inconsistent for guilt than for shame, with many studies showing no relationship between guilt and posttraumatic stress (Dorahy et al., 2013; Leskela, Dieperink & Thuras, 2002; Pineles & Koenen, 2006). Pineles and Koenen (2006) have argued that any relationship between guilt-proneness and psychological distress is actually accounted for by co-occurring shame and in fact Dorahy et al. (2013) have reported that both state and trait guilt were not significantly related to posttraumatic stress when controlling for shame.

Studies that have reported that guilt is associated with posttraumatic stress have tended not to control for shame (Bockers et al., 2015; Crocker et al., 2016; Raz, Shadach & Levy, 2018; Solomon, Avidor & Mantin, 2015; Stotz et al., 2015). Due to the co-occurrence of these emotions, controlling for one when drawing conclusions about the other is prudent in order to avoid confounding the two (Tangney & Fisher, 1995). Studies that have included these controls have tended to find that any relationships between guilt and psychological distress become non-significant when controlling for shame (Pineles & Koenen, 2006; Robinaugh & McNally, 2010; Semb et al., 2011; Webb, Heisler, Call, Chickering & Colburn, 2007). Furthermore, (Ginzburg et al., 2009) report that while both shame and guilt reduced over the course of an intervention for posttraumatic stress in survivors of childhood sexual abuse, only shame mediated the relationship between intervention and outcome.

Studies reporting significant relationships between guilt and posttraumatic stress (Raz et al., 2018; Solomon et al., 2015; Stotz et al., 2015) have also tended to measure trauma-related guilt, rather than guilt-proneness, for example using the Trauma-Related Guilt Inventory (Kubany et al., 1996). While this measure aims to measure trauma-related guilt, many of the questions concern general distress and do not appear to distinguish between

shame and guilt, e.g. “What happened causes me emotional pain”. This leaves open the possibility that those studies finding a relationship between guilt and posttraumatic stress are in fact measuring shame as well as guilt. While shame and guilt are conceptually distinct, in reality emotions do not exist in isolation and guilty feelings about a behaviour may become shameful feelings stemming from interpretations about what the behaviour means about the self.

Another possibility is that guilt is only associated with posttraumatic stress under certain circumstances. Though they did not control for shame, Raz et al. (2018) found that guilt was only associated with posttraumatic stress among participants whose trauma was characterised by a loss of control, suggesting that guilt acted as a defence against their own helplessness. However, in the current study guilt was not associated with posttraumatic stress in participants who had experienced sexual violence, who may be expected to have experienced less control during their trauma (Raz et al., 2018).

While the current study offers new insights into the role of disclosure and SCEs in posttraumatic stress, and addresses methodological limitations of previous research, it does have a number of limitations. Due to the cross-sectional design, the direction of the relationships between reluctance to disclose, posttraumatic stress and SCEs cannot be established. Based on the current theoretical literature, the study assumes that reluctance to disclose leads to and maintains posttraumatic stress through reduced opportunities for processing. However, it is also possible that causality is in the opposite direction: posttraumatic stress may lead to greater reluctance to disclose as people feel more ashamed of their distress/trauma. Longitudinal data would be needed to establish the direction of causality within these relationships.

A further limitation is the large numbers of participants who began but did not complete the survey. One factor behind this is likely that moderators opened the survey in

order to determine the appropriateness of sharing it on their platform. This will have registered as an incomplete response, artificially inflating the number of participants who terminated the survey early. However, it is also possible that certain participants were more likely to drop out than others, resulting in bias in the data. There were no differences in demographic characteristics between the two groups. However, completers reported that significantly more trauma types had happened to them than non-completers. It is possible that those people experiencing greater trauma-related distress were more motivated to complete the study. A limitation of the study is that it was not possible to compare completers and non-completers on level of shame and reluctance to disclose as this information was only available for those who completed these surveys.

Another limitation is that only proneness to SCEs was measured, and not SCEs experienced at the time of the trauma or current SCEs when thinking about the trauma. While measuring all of these other facets of SCEs would likely have introduced too great a burden on participants, it would be of use to explore their relationships with reluctance to disclose.

A strength of the current study is that it included participants with a broad range of trauma experiences. However, this also has the potential to obscure nuances between different types of trauma. For example, it is possible that SCEs and reluctance to disclose may have different relationships with posttraumatic stress among survivors of childhood abuse compared with single traumas experienced in adulthood. In survivors of childhood abuse, proneness to SCEs may form contemporaneously to attitudes towards disclosure as the child develops. This is in contrast to survivors who experienced their trauma in adulthood, for whom propensity to SCEs may have formed prior to the trauma and their subsequent attitudes about disclosure. Relatedly, the age at which each participants' traumas occurred is unknown. This may impact the interpretation of the findings and presents challenges in understanding who they are generalisable to. Further research might explore how reluctance to disclose,

SCEs and posttraumatic stress interact among people with experience of particular traumas at particular developmental stages.

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Table 1: Tests of statistical assumptions for regression analysis

	Tolerance	Variance inflation factor	Durbin-Watson
Reluctance to disclose	0.87	1.15	-
Shame	0.83	1.21	-
Self-disgust	0.78	1.28	-
Regression model	-	-	2.12

Table 2: Sample demographics

	Total sample (<i>n</i> = 443)				Sample with complete measures (<i>n</i> = 347)			
	<i>N</i>	%	Mean	<i>SD</i>	<i>N</i>	%	Mean	<i>SD</i>
Age	-	-	30.30	10.65	-	-	30.64	10.72
<i>Gender:</i>								
Female	367	82.8%	-	-	293	84.1%	-	-
Male	57	12.9%	-	-	40	11.5%	-	-
Non-binary	15	3.4%	-	-	11	3.2%	-	-
Prefer another description	4	0.9%	-	-	4	1.2%	-	-
<i>Country of nationality:</i>								
USA	182	41.1%	-	-	144	41.5%	-	-
UK	179	40.4%	-	-	136	39.2%	-	-
Germany	14	3.2%	-	-	11	3.2%	-	-
Canada	11	2.5%	-	-	11	3.2%	-	-
Ireland	10	2.3%	-	-	5	1.4%	-	-
Australia	6	1.4%	-	-	5	1.4%	-	-
Other	41	7.4%	-	-	35	10.1%	-	-
<i>Highest level of education:</i>								
Primary/junior school	8	2%	-	-	5	1.4%	-	-
Secondary/high school	104	24%	-	-	83	23.9%	-	-
College	95	21%	-	-	76	21.9%	-	-
Bachelor's/undergraduate degree	126	28%	-	-	95	27.4%	-	-
Masters/ postgraduate degree	86	19%	-	-	69	19.9%	-	-

Doctoral degree	13	3%	-	-	10	2.9%	-	-
Prefer not to answer	11	3%	-	-	9	2.6%	-	-
<i>Employment status:</i>								
Employed / self-employed	244	55%	-	-	192	55.3%	-	-
Not working and looking for work	36	8%	-	-	27	7.8%	-	-
Not working and not looking for work	47	11%	-	-	38	11.0%	-	-
In full-time education	93	21%	-	-	72	20.7%	-	-
Retired	7	2%	-	-	6	1.7%	-	-
Prefer not to answer	16	4%	-	-	12	3.5%	-	-
Number of types of trauma experienced	7.47	4.02	-	-	7.49	3.96s	-	-

Table 3: Sample experiences of trauma

	Total sample ($n = 443$)				Sample with complete measures ($n = 347$)			
	Happened to me	Witnessed it	Happened to close family/friend	Part of my job	Happened to me	Witnessed it	Happened to close family/friend	Part of my job
Natural disaster	55 (12.4%)	32 (7.2%)	88 (19.9%)	4 (0.9%)	47 (13.5%)	22 (6.3%)	71 (20.5%)	3 (0.9%)
Fire or explosion	32 (7.2%)	46 (10.4%)	75 (16.9%)	10 (2.3%)	27 (7.8%)	35 (10.1%)	55 (15.9%)	8 (2.3%)
Transport accident	163 (36.8%)	37 (8.4%)	64 (14.4%)	6 (1.4%)	129 (37.2%)	32 (9.2%)	48 (13.8%)	3 (0.9%)
Serious accident	60 (13.5%)	50 (11.3%)	56 (12.6%)	11 (2.5%)	47 (13.5%)	39 (11.2%)	44 (12.7%)	7 (2.0%)
Toxic substance	15 (3.4%)	10 (2.3%)	37 (8.4%)	17 (3.8%)	13 (3.7%)	7 (2.0%)	27 (7.8%)	13 (3.7%)
Physical assault	225 (50.8%)	42 (9.5%)	42 (9.5%)	14 (3.2%)	181 (52.2%)	33 (9.5%)	31 (8.9%)	11 (3.2%)
Assault - weapon	67 (15.1%)	24 (5.4%)	67 (15.1%)	8 (1.8%)	57 (16.4%)	20 (5.8%)	48 (13.8%)	5 (1.4%)
Sexual assault	227 (51.2%)	8 (1.8%)	63 (14.2%)	5 (1.1%)	184 (53.0%)	7 (2.0%)	48 (13.8%)	4 (1.2%)
Other unwanted sexual experience	292 (65.9%)	6 (1.4%)	22 (5.0%)	5 (1.1%)	236 (68.0%)	4 (1.2%)	20 (5.8%)	4 (1.2%)

Combat/war zone	5 (1.1%)	4 (0.9%)	72 (16.3%)	9 (2.0%)	4 (1.2%)	3 (0.9%)	52 (15.0%)	8 (2.3%)
Captivity	29 (6.5%)	2 (0.5%)	34 (7.7%)	4 (0.9%)	26 (7.5%)	2 (0.6%)	26 (7.5%)	3 (0.9%)
Life-threatening illness/injury	103 (23.3%)	101 (22.8%)	40 (9.0%)	11 (2.5%)	82 (23.6%)	75 (21.6%)	28 (8.1%)	8 (2.3%)
Severe human suffering	59 (13.3%)	54 (12.2%)	41 (9.3%)	21 (4.7%)	51 (14.7%)	42 (12.1%)	32 (9.2%)	11 (3.2%)
Sudden violent death	24 (5.4%)	63 (14.2%)	97 (21.9%)	19 (4.3%)	20 (5.8%)	55 (15.9%)	71 (20.5%)	11 (3.2%)
Sudden accidental death	21 (4.7%)	52 (11.7%)	90 (20.3%)	13 (2.9%)	18 (5.2%)	41 (11.8%)	68 (19.6%)	7 (2.0%)
Serious injury/harm/death caused to another	20 (4.5%)	12 (2.7%)	15 (3.4%)	7 (1.6%)	18 (5.2%)	10 (2.9%)	12 (3.5%)	3 (0.9%)
Other *	263 (59.4%)	22 (5.0%)	12 (2.7%)	7 (1.6%)	211 (60.8%)	18 (5.2%)	8 (2.3%)	5 (1.4%)

* Commonly reported other traumas included birth trauma ($n=56$), emotional abuse/bullying ($n=48$), self-harm/suicide attempt ($n=8$), medical trauma ($n=6$)

Table 4: Sample clinical characteristics

	Total sample (<i>n</i> = 443)		Sample with complete measures (<i>n</i> = 347)	
	Mean	<i>SD</i>	Mean	<i>SD</i>
<i>Post-traumatic stress - IES-R:</i>	30.30	10.65	30.60	10.73
Total	46.75	22.01	47.68	21.85
Hyperarousal	12.37	7.23	12.73	7.20
Avoidance	16.83	8.19	17.16	8.03
Intrusions	17.55	8.78	17.79	8.73s
<i>Attitudes towards disclosure -</i>				
<i>DTQ:</i>				
Total	86.66	14.90	87.12	14.52
Reluctance to talk	33.39	7.31	33.51	7.27
Urge to talk	24.93	5.69	25.11	5.68
Emotional reactions	28.34	6.93	28.49	6.74s
<i>Shame and guilt – GASP:</i>				
Total guilt and shame	5.33	0.82	5.33	0.82
Guilt - Total	5.65	0.98	5.67	0.98
Guilt – Negative behaviour evaluation	5.69	1.22	5.70	1.22
Guilt – Repair	5.61	1.08	5.62	1.07
Shame – Total	5.00	0.96	5.01	0.97
Shame – Negative self- evaluation	6.13	1.11	6.13	1.11s
Shame - Withdraw	3.87	1.30	3.88	1.31

<i>Self-disgust - SDS-R:</i>				
Total self-disgust	95.26	11.02	95.33	11.02
Behavioural self-disgust	18.94	3.38	18.95	3.38
Physical self-disgust	20.00	5.84	20.04	5.84

Table 5: Correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	α
1. IES-R Intrusions	1	.69**	.85**	.94**	.36**	.18**	.60**	.52**	0.06	.26**	.41**	.91
2. IES-R Avoidance	397	1	.68**	.87**	.45**	0.04	.50**	.47**	0.01	.26**	.41**	.85
3. IES-R Hyperarousal	397	397	1	.92**	.35**	.14**	.56**	.48**	0.02	.28**	.41**	.87
4. IES-R Total	397	397	397	1	.43**	.13*	.61**	.54**	0.03	.29**	.45**	.95
5. DTQ Reluctance to disclose	375	375	375	375	1	0.06	.61**	.80**	0.06	.18**	.30**	.78
6. DTQ Urge to disclose	375	375	375	375	376	1	.27**	.54**	-0.02	0.03	0.05	.77
7. DTQ Emotional reactions	375	375	375	375	376	376	1	.87**	0.07	.31**	.37**	.82
8. DTQ Total	375	375	375	375	376	376	376	1	0.05	.24**	.34**	.85
9. GASP Guilt	354	354	354	354	355	355	355	355	1	.42**	.13*	.71
10. GASP Shame	354	354	354	354	355	355	355	355	355	1	.36**	.66
11. SDS-R Self-disgust	348	348	348	348	349	349	349	349	349	349	1	.93

Upper half of table shows correlation coefficients (r) and significance (* = significant at $p = .05$ level, ** = significant at $p = .01$ level)

Lower half of table shows participant numbers used in each analysis (n)

α = Cronbach's alpha

Table 6: Moderation analysis predicting posttraumatic stress (total IES-R score) from reluctance to disclose and shame, controlling for self-disgust

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	-9.59 (-28.21, 9.03)	9.47	-1.01	.312
Reluctance to disclose (centred)	0.91 (0.63, 1.19)	0.14	6.39	< .001
Shame (centred)	3.01 (0.86, 5.16)	1.09	2.76	.006
Reluctance to disclose x shame interaction	-0.19 (-0.47, 0.08)	0.07	-1.38	.168
Covariate: Self-disgust	0.10 (0.41, 0.80)	0.10	6.12	.410

Table 7: Moderation analysis predicting posttraumatic stress (total IES-R score) from reluctance to disclose and self-disgust, controlling for shame

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	34.21 (23.20, 45.22)	5.60	6.11	< .001
Reluctance to disclose (centred)	0.90 (0.62, 1.18)	0.14	6.35	< .001
Self-disgust (centred)	0.62 (0.43, 0.82)	0.10	6.33	< .001
Reluctance to disclose x self-disgust interaction	-0.2 (-0.05, 0.00)	0.01	-2.56	.011
Covariate: Shame	2.80 (0.65, 4.95)	1.09	2.56	.011

Table 8: Moderation analysis predicting posttraumatic stress (total IES-R score) from reluctance to disclose and shame among participants who had experienced sexual assault, controlling for self-disgust

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	5.25 (-15.56, 26.06)	10.57	0.50	.620
Reluctance to disclose (centred)	0.81 (0.50, 1.13)	0.16	5.07	< .001
Shame (centred)	3.08 (0.62, 5.54)	1.25	2.47	.014
Reluctance to disclose x shame interaction	-0.46 (-0.77, -0.15)	0.16	-2.91	.004
Covariate: Self-disgust	0.50 (0.28, 0.71)	0.11	4.58	< .001

Table 9: Moderation analysis predicting posttraumatic stress (total IES-R score) from reluctance to disclose and self-disgust among participants who had experienced sexual assault, controlling for shame

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	39.57 (26.79, 52.36)	6.49	6.10	< .001
Reluctance to disclose (centred)	0.77 (0.45, 1.09)	0.16	6.10	< .001
Self-disgust (centred)	0.53 (0.32, 0.75)	0.11	4.94	< .001
Reluctance to disclose x self-disgust interaction	-0.04 (-0.06, -0.01)	0.01	-2.58	.010
Covariate: Shame	2.47 (0.26, 5.22)	1.26	2.18	.030

Table 10: Analyses comparing completers and non-completers on demographics and trauma exposure

T-tests							
	Completers (<i>n</i> = 347)		Non-completers (<i>n</i> = 98)				
	Mean	<i>SD</i>	Mean	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Age	30.64	10.72	28.86	10.38	1.46	443	.15
No of traumas experienced	7.49	3.97	7.50	4.34	0.04	443	.97
No of traumas directly experienced	3.89	2.30	3.32	2.37	2.18	443	.03
Pearson's chi-square test							
	χ^2		<i>df</i>		<i>p</i>		
Gender	4.46		3		.22		
Nationality	36.41		34		.36		
Education	3.67		5		.60		
Employment	.67		4		.96		

Number of traumas experienced includes responses of 'Happened to me', 'Witnessed it', 'Learned about it' and 'Part of my job' to all trauma types on the IES-R. Number of trauma types directly experienced includes only responses of 'Happened to me'.

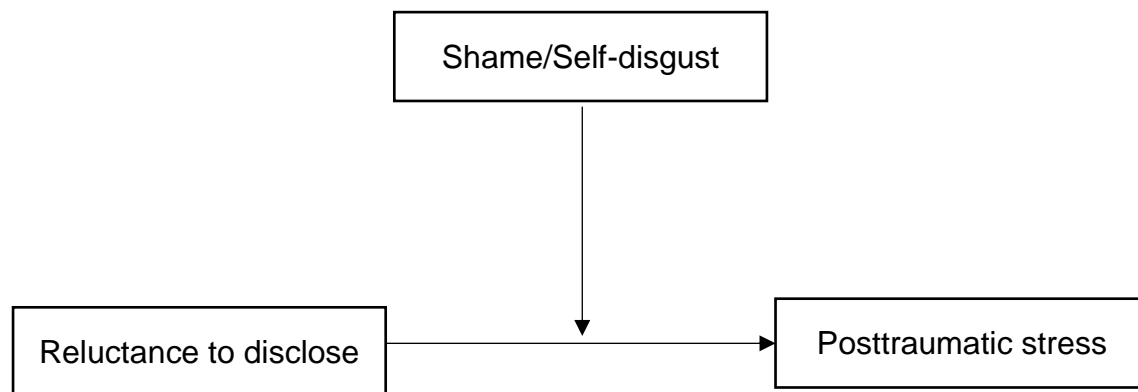


Figure 1: Moderation model

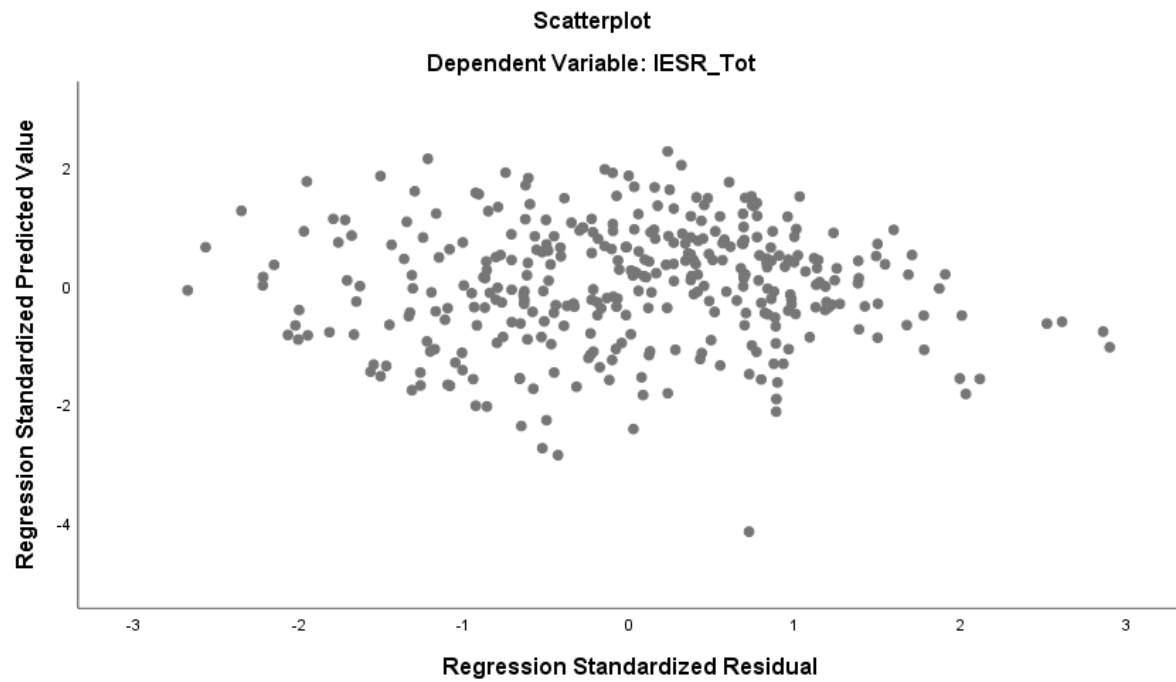


Figure 2: Scatterplot of standardised residuals

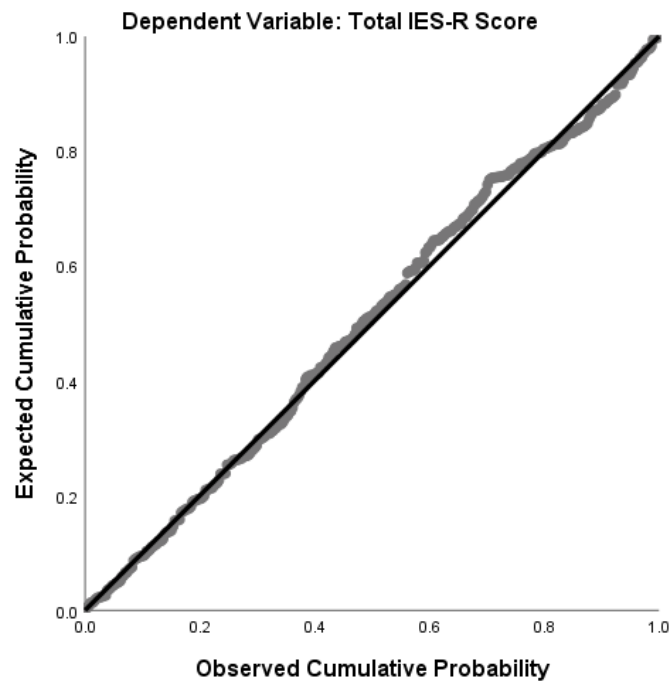


Figure 3: P-P plot of standardised residuals

Appendix 2-1: Journal of Traumatic Stress Author Guidelines

1. **Online Submissions:** The *Journal of Traumatic Stress* accepts submission of manuscripts online at:

<http://mc.manuscriptcentral.com/jots>

Information about how to create an account or submit a manuscript may be found online on the Manuscript Central homepage in the "User Tutorials" section or, on the Author Dashboard, via the "Help" menu in the upper right corner of the screen. Personal assistance also is available by calling 434-964-4100.

2. **Article Formats:** Three article formats are accepted for consideration by JTS. All page counts should include references, tables, and figures. *Regular articles* (30 pages maximum, inclusive of all text, abstract, references, tables, and figures) include research studies, quantitative systematic reviews, and theoretical articles. Purely descriptive articles or narrative-based literature reviews are rarely accepted. In extraordinary circumstances, the editors may consider longer manuscripts that describe highly complex designs or statistical procedures but authors should seek approval prior to submitting manuscripts longer than 30 pages. *Brief reports* (18 pages maximum) are appropriate for pilot studies or uncontrolled trials of an intervention, preliminary data on a new problem or population, condensed findings from a study that does not merit a full article, or methodologically oriented papers that replicate findings in new populations or report preliminary data on new instruments. *Commentaries* (1,000 words or less) involve responses to previously published articles or, occasionally, invited essays on a professional or scientific topic of general interest. Response commentaries, submitted no later than 8 weeks after the original article is published (12 weeks if outside the U.S.), must be content-directed and use tactful language. The original author is given the opportunity to respond to accepted commentaries.
3. **Double-Blind Review:** As of January 1, 2017, the Journal of Traumatic Stress utilizes a double-blind review process in which reviewers receive manuscripts with no authors' names or affiliations listed in order to ensure unbiased review. To facilitate blinded review, the title page should be uploaded as a separate document from the body of the manuscript, identified as "Title Page," and should include the title of the article, the running head (maximum 50 characters) in uppercase flush left, author(s) byline and institutional affiliation, and author note (see pp. 23-25 of the APA 6th ed. manual). Within the main body of the manuscript, tables, and figures, authors should ensure that any identifying information (i.e., author names, affiliations, institutions where the work was performed, university whose ethics committee approved the project) is blinded; a simple way to accomplish this is by replacing the identifying text with the phrase "[edited out for blind review]". In addition, language should be used that avoids revealing the identity of the authors; e.g., rather than stating, "In other research by our lab (Bennett & Kerig, 2014), we found ..." use phrases such as, "in a previous study, Bennett and Kerig (2014) found ...". Please note that if you have uploaded the files correctly, you will **not** be able to view the title page in the PDF and HTML proofs of your manuscript; however, the Editor and JTS editorial office staff can view this information.

4. **Preferred and Non-Preferred Reviewers:** During the submission process, authors may suggest the names of preferred reviewers; authors also may request that specific individuals not be selected as reviewers.

5. **Publication Style:** JTS follows the style recommendations of the 2010 *Publication Manual of the American Psychological Association* (APA; 6th edition) and submitted manuscripts must conform to these formatting guidelines. Manuscripts should use non-sexist language. Manuscripts must be formatted using letter or A4 page size, with 1 inch (2.54 cm) margins on all sides, Times New Roman 12 point font (except for figures, which should be in 12 point Arial font), and double-spacing for text, tables, references, and figures. Submit your manuscript in .doc or .docx format. For assistance with APA style, in addition to consulting the manual itself, please note these helpful online sources that are freely available: <http://www.apastyle.org/learn/tutorials/basics-tutorial.aspx> and <http://owl.english.purdue.edu/owl/section/2/10/>.

6. **APA and JTS Style Pointers:** In addition to consulting the APA 6th edition Publication Manual, the resources indexed above, and the JTS Style Sheet posted online, please consider these pointers when formatting each section of the manuscript:
 - a. **Tense:** Throughout the manuscript, please use past tense for everything that has already happened, including the collection and analyses of the data being reported.

 - b. **Abstract:** The Main Document of the manuscript should begin with an abstract no longer than 250 words, placed on a separate page. In addition, JTS house style requires the reporting of an effect size for each finding discussed in the abstract; if there are many findings, present the range.

 - c. **Participants:** Please include in this subsection of the Method section information on sample characteristics, subsample comparisons, and analyses that describe the sample but are not focused on testing the hypotheses that are the aims of your manuscript.

 - d. **Procedure:** Please describe the procedure in sufficient detail so that it could be comprehended and replicated by another investigator. Identify by name the IRB or ethics committee (edited out for blind review in the submitted manuscript) that approved the research, and the manner in which consent was obtained.

 - e. **Measures:** In addition to providing citations, psychometric, and validation data for each measure administered, please provide coefficient alpha from your data for each measure for which this is appropriate.

 - f. **Data Analysis:** Include a separate subsection with this header in the Method section in which you describe the analyses performed, the software program(s) used, and make an explicit statement about missing data in your data set. If there are no missing data, so state; otherwise describe the extent of missing data and how they were handled in the data analyses.

 - g. **Results** (and throughout): Present percentages to 1 decimal place, means and *SDs* to 2 decimal places, and exact *p* values to 3 decimal places except for any $< .001$. Include leading zeros (e.g., 0.92) when reporting any statistic that can be greater than 1.00 (or less than -1.00). For example, there is no leading zero used when reporting correlations, coefficient alphas, standardized betas, *p* values, or fit indices

(e.g., $r = .47$, not 0.47). Report effect sizes for analyses conducted wherever possible and appropriate.

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 1. **Journal Article:**
Kraemer, H. C. (2009). Events per person-time (incidence rate): A misleading statistic? *Statistics in Medicine*, 28, 1028–1039. doi: 10.1002/sim.3525
 2. **Book:**
Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
 3. **Book chapter:**
Meehl, P. E. (2006). The power of quantitative thinking. In N. G. Waller, L. J. Yonce, W. M. Grove, D. Faust, & M. F. Lenzenweger (Eds.), *Essays on the practice of scientific psychology* (pp. 433–444). Mahwah, NJ: Erlbaum.
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Section Three: Critical Appraisal

Reflections on parallel process, culture, and ethical implications of the research

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Word count: 3,089

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Measuring self-conscious emotions and disclosure attitudes

A central factor in the validity of the current study is the psychometrics used. As discussed in the Introduction, measures of proneness were selected as the most appropriate way to capture shame and guilt. However, as a newly emerging concept, very few measures of self-disgust are available, with none identified that measure proneness. Therefore, the Self-disgust Scale – Revised (SDS-R) was chosen, which measures current self-disgust. Self-disgust may be expected to be stable over time as it links to the individual's self-concept. However, while this was the best available measure, it may have impacted the results of the study. Whereas the Guilt and Shame Proneness Scale (GASP) asks participants how they would feel or act in a hypothetical situation, the SDS-R may have tapped into more sensitive aspects of participants' current feelings about the self. This may explain why self-disgust moderated the relationship between reluctance to disclose and posttraumatic stress in the whole sample, but shame did not. As a relatively newly developed measure, there is limited information on the psychometric properties of the SDS-R. Evidence is emerging for the validity of self-disgust as a distinct concept from shame (Clarke, Simpson & Varese, 2019). While the current study provides supporting evidence for this, further research confirming the validity of the construct is required.

The reasons for measuring proneness to shame and guilt are outlined in the Introduction section. The GASP in particular was chosen because it was developed to address criticisms of the Test of Self-Conscious Affect: it has a broader theoretical basis and less overlap between shame and guilt (Cohen, Wolf, Panter & Insko, 2011). However, relatively few published studies are available that use it, providing limited evidence for its psychometric properties and construct validity. A further issue is that developmental trauma may impact upon the ability to accurately monitor and describe internal experiences. Those people most affected by SCEs may be least able to self-report about them and future research

might consider using implicit measures of SCEs (Bockers, Roepke, Michael, Renneberg & Knaevelsrud, 2015; Saraiya & Lopez-Castro, 2016).

The Disclosure of Trauma Questionnaire (DTQ) was used to measure participants' attitudes towards disclosure. While this measure has been used in a relatively small number of studies, samples have included survivors of a range of traumas and from several countries. Across these studies the DTQ has shown consistent high correlations with posttraumatic stress. However, there are no known studies focusing on sexual trauma, which many of the current sample reported direct experience of. Using a self-report measure about willingness to self-disclose also raises questions about whether participants who are most reluctant to disclose can respond accurately, as this in itself is an act of self-disclosure. As noted in Paper 2, the measures' reliability and validity were considered when choosing them.

Parallel process: Challenges in researching SCEs

The current study has focused on the impact of SCEs in the lives of survivors of trauma, and the ways in which they can lead survivors to withdraw from others and from internal and external reminders of the trauma. Researching such issues comes with substantial challenges. Just one of these challenges is that participation itself can serve as an external reminder of the trauma and as such become an unwelcome trigger that potential participants seek to avoid, impacting their participation. Therefore, a parallel process can occur by which the very phenomenon under study can play out in the research itself. A very clear example of this has occurred within the current project. While the empirical paper presented here focuses on reluctance to disclose, this was not the project initially embarked upon. A previous empirical project had been attempted and ultimately failed due to challenges in recruitment. This section of the critical review will discuss the challenges faced in the original project and how this can be understood through the lens of SCEs.

In 2018 I submitted and received ethical approval for a qualitative project entitled ‘Experiences of self-conscious emotions in talking therapy among survivors of sexual abuse’. This project was motivated by experiences within my clinical work during and prior to training. A consistent theme from this work was that those people who might benefit most from therapy were also the people who found it most difficult to tolerate. Shameful feelings about the self seemed to cause great distress and could be amenable to therapy, but also made it very difficult for survivors to tolerate the vulnerability and exposure of the therapeutic relationship, and the task of self-reflection. The research aimed to explore how survivors of sexual abuse experienced SCEs within the context of the therapeutic relationship with the hope that this could provide insight into how this can be managed by therapists. This was to be a qualitative project, with the intention of conducting 6-12 interviews and using interpretative phenomenological analysis. After many months of attempted recruitment and re-submission to the ethics committee to broaden the possible avenues for recruitment, it was decided that the project was unfeasible within the time pressures of a DClinPsy thesis.

It seems likely that the difficulties in recruitment were an expression of the very problem I was trying to research. Participants were asked to engage in a face-to-face or telephone/Skype interview with someone unknown to them, in which they would be asked about the very emotions that lead them to withdraw from others’ gaze. Part of the motivation for the study was concern about the power hierarchy that is inevitably present in therapy, despite the best efforts of the therapist, and that may elicit feelings of smallness and inadequacy (Tangney & Dearing, 2002a). This very phenomenon is also present within the research interview. While qualitative research interviews can give a voice to those who hold less power within society, they are also power-laden, with the interviewer setting the context, content and boundaries, and holding control of the interpretation and distribution of the interviewee’s information (Briggs, 2001; Kvale, 2006; Owens, 2006). Burman (1997)

highlights the risk that participants can be coerced into disclosures that they later regret. This may be a particular concern for survivors of sexual abuse, given the sensitive nature of what may be shared and their previous experiences of coercion. Given the well documented negative responses that survivors of sexual abuse frequently encounter in response to disclosure (Carson et al., 2019; Kennedy & Prock, 2016; Ullman, 2003; Ullman & Filipas, 2001), they may understandably have concerns about research interviews being similarly shaming or distressing.

The findings of the current literature review provided clues to how SCEs might impact on recruitment for the qualitative empirical paper: survivors felt vulnerable to others perceived as more powerful than themselves, and fearful of being misinterpreted or misunderstood. One included study even noted a participant's experience of the power dynamic within the research interview: "I feel little in some way, I feel little in relation to you." (Rahm, Renck & Ringsberg, 2006, p. 105). Withdrawal was a primary defence mechanism that survivors' used in their personal lives, and it is unsurprising that this would also impact on interactions with research.

Even if these barriers are overcome and participation in a research interview is arranged, SCEs continue to be present and require management by the researcher. Reflecting on recruitment challenges in her doctoral thesis, Owens (2006) offers suggestions for how interviewers can manage shame within interviews, with a focus on reducing meta-shame, i.e. participants' shame about feeling shame, thereby facilitating engagement and the participants' own sense of being heard and understood (Scheff, 1988; Tangney & Dearing, 2011).

Despite the difficulties outlined above, studies that have successfully interviewed survivors of sexual abuse about SCEs have been published, as is evident from the current literature review. This led me to reflect on what enabled successful recruitment in these

projects. Not all of these studies provide precise information about how participants were approached, making it difficult to understand how a sufficient sense of relational safety was created for potential participants. Of those studies that go into detail on their recruitment and the setting for the research, many recruited through established relationships within survivors' services. A major point of difficulty for my project was that neither I nor any members of the supervisory team worked within the services from which I was trying to recruit. Where recruitment is likely to be sensitive and challenging, having a physical presence and pre-existing relationship with the recruitment site is likely to be of benefit. Being familiar with someone connected with the research, or being able to ask questions before expressing an interest in participation may be sufficient to enable potential participants to engage with the research. On the other hand, having a researcher connected to the service the participant is receiving or has received support from could hinder open communication as participants may have concerns about anonymity and confidentiality. This might particularly have been the case for original study described here given that participants were to be interviewed about their experiences of therapy.

A further challenge in recruitment was reaching people who were far along enough in their recovery to have experienced therapy and to feel sufficiently safe talking about it to participate. People at this stage may no longer be actively engaged with survivor support, either through real world or online sources, making them harder to reach. A further issue was that the interview method meant that advertisement of the study needed to be targeted to those geographical areas where it would be pragmatically feasible for me to meet with potential participants. While I was able to offer telephone or Skype interviews I was reluctant to rely on this given the sensitive nature of the intended interview schedule. I anticipated that technology could become a barrier to open communication and could make it more challenging to be sensitive to participants' non-verbal communications.

In response to the difficulties in recruitment for the first project I set out to design a related project that would be more likely to succeed. To be able to draw on a larger pool of potential participants I broadened the research question to include survivors of any trauma. I also changed the focus from experiences within therapy to disclosure in general so that anyone who had experienced trauma could take part. The research question suited a quantitative methodology, which I hoped would be less intimidating for potential participants, being by its nature less exposing and intimate. Hosting the survey online meant that I could reach a global pool of potential participants and was not limited by geography.

Recruitment for the second project was successful, suggesting that these changes to the design of the study were beneficial. It is worth reflecting on how these changes benefitted recruitment. There is a wealth of research on how inquiry mode influences disclosure by participants, with many studies comparing interviews with questionnaire methods. Many studies have reported that participants make more disclosures about sensitive matters when participating via anonymous and automated methods, such as an online survey or automated telephone data collection, rather than via interview (Locke & Gilbert, 1995; Reddy et al., 2006; Wood, Nosko, Desmarais, Ross & Irvine, 2006).

This also appears to be the case specifically concerning disclosure of trauma. Numerous studies have demonstrated that participants make more disclosures of abuse in response to self-administered or automated data collection methods, such as online surveys (Chang et al., 2012; Kataoka, Yaju, Eto & Horiuchi, 2010; Kim, Dubowitz, Hudson-Martin & Lane, 2008; Kubiak, Nnawulezi, Karim, Sullivan & Beeble, 2012; Parks, Pardi & Bradizza, 2006). This suggests that potential participants may have felt more comfortable to share their experiences in the second study, knowing that this was via an online survey rather than to an interviewer.

Although recruitment for the second project was successful, SCEs could still have affected the validity of the study. While a quantitative survey does not involve the intense human interaction of a face-to-face interview, SCEs may still play a part. Shame is a relational emotion, but is based on the idea of the other's feelings about the self, not the other's actual feelings, and so is an internal event that can occur without the presence of another (H. B. Lewis, 1971; M. B. Lewis, 2003). SCEs might impact on whether an individual decides to participate. The sample were self-selecting, and the people who chose to participate may have been those who experienced lower levels of SCEs and therefore felt more comfortable with the exposure of taking part in a research study (Legerski & Bunnell, 2010). However, given the relatively high levels of SCEs, reluctance to disclose and posttraumatic stress reported, this seems unlikely.

Once participating, SCEs might also influence the process by motivating participants to self-censor, either through terminating participation before completing the study, or by choosing the 'Prefer not to say' option for a given question. Out of the 445 participants who indicated that they had experienced trauma and then began answering the psychometrics, 365 (88%) participated until the end of the survey. This is higher than might be expected given the length of the survey and nature of the questions. The option to select 'Prefer not to say' rather than answer a question may have supported participants to continue until the end, but was not used often, with less than 1% of questions responded to with the 'Prefer not to say' option. However, this may have been viewed as equally as exposing and therefore avoided, as a 'Prefer not to say' response might be interpreted as indicating that the individual experiences the difficulty that the question is asking about.

Ethics of trauma research

Queries might be raised about whether participation in trauma-focused research may in itself be retraumatising. Legerski and Bunnell (2010) review the available literature on

risks and benefits to survivors of trauma of participating in research. Legerski and Bunnell (2010) conclude that while some survivors report distress during participation (e.g. Griffin, Resick, Waldrop & Mechanic, 2003; Kassam-Adams & Newman, 2002), any distress appears to be transient and mild (e.g. Carter-Visscher, Naugle, Bell & Suvak, 2007; Galea et al., 2005). Legerski and Bunnell (2010) also found that survivors tend not to report regret about participation (e.g. Dyregrov, 2004) and tend to report that participation in research was of value to them personally (Carlson et al., 2003; Johnson & Benight, 2003). Interestingly, Newman, Walker, and Gefland (1999) found that those participants with greater posttraumatic stress reported more distress during participation, but were also less likely to regret taking part.

As suggested by the research finding increased disclosure rates in questionnaire-based methods compared with interview methods, participants have expressed preference for computer-administered surveys compared with paper-and-pencil survey and face-to-face interview when disclosing childhood physical and sexual abuse (DiLillo, DeGue, Kras, Di Loreto-Colgan & Nash, 2006). However, other research presents a different view. DePrince and Chu (2008) used a measure specifically designed to capture participants' experiences of taking part in research, the Response to Research Participation Questionnaire (RRPQ; Newman et al., 1999), in their study with survivors of trauma. The RRPQ captures experiences of participation, perceived personal benefits and draw backs of participation, emotional reactions to the research and global evaluation of the process. DePrince and Chu (2008) reported that those participants who completed both an interview and survey found participation more personally meaningful than those who completed the survey alone (DePrince & Chu, 2008).

Taken together, these findings suggests that survey methods may feel safer for participants, but that the relational experience of an interview may offer more depth and

opportunity for reflection (DePrince & Chu, 2008). Seedat, Pienaar, Williams, and Stein (2004) suggest that across trauma research, a range of methods should be used. This may accommodate individual differences and allow a greater number of people to be represented in the research in the way that feels appropriate for them at that point in time. DePrince and Chu (2008) recommend using the RRPQ in order to assess the balance of costs and benefits to participants, support research applications to ethical review bodies, and to allow analysis of the methodological and participant factors that influence their experiences of the research process.

Impact of culture

A strength of the current empirical paper was that it drew on a global sample, meaning that the results are not merely generalisable to one population. However, a possible consequence of this is that it may obscure important cultural differences in how SCEs are experienced and shape our lives. As relational experiences SCEs are bound up in our cultural and societal influences and may have different elicitors and behavioural consequences depending on a culture's values. The norms around SCEs seem to vary across cultures more than for basic emotions (Eid & Diener, 2001). For example, shame appears to be viewed as a more positive experience in Chinese culture than in many western cultures, being seen as a fundamental aspect of an individual's moral functioning and shamelessness as problematic (Li, Wang & Fischer, 2004). Shame also appears to be more readily elicited by the actions of close others in Chinese culture, compared with American culture (Stipek, 1998). Even within cultures that appear relatively similar, important differences may be found. For example, in Spanish culture, held to be more interdependent, SCEs are more often elicited by the actions of close others than in Dutch culture, held to be more independent (Fischer, Manstead & Rodriguez Mosquera, 1999).

Importantly, there may be different behavioural responses to SCEs across cultures. Spanish participants report viewing shame more positively than Dutch participants and as a result sharing their shame with others more readily (Fischer et al., 1999). This suggests that shame may be viewed as less culturally unacceptable and less distressing in itself. In Filipino culture, shame may motivate repair of relational ruptures more often than the stereotypical conceptualisation of withdrawal as it is seen in cultures where the self is viewed as more independent (Bagozzi, Verbeke & Gavino, 2003). These differences in behavioural response are important as they have a bearing on the hypothesised mechanisms by which SCEs may lead to increased distress. For example, Xiao and Smith-Prince (2015) report that motivations to protect family members from SCEs among Pacific Islanders in America led survivors of childhood sexual abuse not to disclose. The meaning of the behavioural responses to SCEs may also differ between cultures. Mueller, Orth, Wang, and Maercker (2009) found that reluctance to disclose was not predictive of posttraumatic stress in a Chinese sample, unlike in American (Currier, Lisman, Irene Harris, Tait & Erbes, 2013), German (Köhler, Schäfer, Goebel & Pedersen, 2018; Mueller, Moergeli & Maercker, 2008; Mueller et al., 2009) and UK samples (Pietruch & Jobson, 2011). It may be that in some cultures, reluctance to disclose is experienced as culturally appropriate and as a result is experienced as less distressing in itself (Mueller et al., 2009). Further research exploring the mechanisms by which SCEs and disclosure are associated with posttraumatic stress in different cultures is needed.

Sensitivity to the ways in which people describe their experiences is also required. Different cultural groups use language to describe SCEs in different ways (Bedford, 2004; Budden, 2009) and therapists from a different cultural background to their client may need to be particularly mindful of how language can facilitate or hinder mutual understanding.

In clinical work, sensitive understanding of how an individual's cultural background influences their experiences of distress is vital, and especially where the distress is underpinned by such culturally-determined factors such as SCEs. Cultural influences can also be a source of strength and may be drawn upon to develop ways of addressing SCEs that meet with the individual's culturally-informed expectations, experiences and ways of viewing the world, the self and their relationships with others (Furukawa & Hunt, 2011).

Implications of the study findings

The study findings highlight the importance of SCEs for survivors of trauma and the need for clinicians to consider them in assessment and formulation of trauma-related distress. They reinforce the importance of considering the affect driving posttraumatic stress before determining an appropriate intervention. Importantly, the results suggest that among survivors of sexual abuse, even those most willing to talk about their experiences may experience increased posttraumatic stress if they have high levels of shame. This suggests that these clients may struggle to access the benefits of disclosure. Where exposure-focused interventions may be indicated in fear-based trauma reactions, for people experiencing high levels of shame repeated exposure without an internal sense of safety and self-acceptance at best may mean the individual does not benefit and at worst could be re-traumatised (Adshead, 2000; Bowyer, Wallis & Lee, 2013).

Compassion focused therapy (CFT) was developed to help clients struggling to benefit on an affective level despite grasping the logic of cognitive interventions. By building the self-soothing system to address issues such as shame, a physiological and psychological sense of safety may be developed (Gilbert, 2011). Building self-compassion may enable clients to tolerate exposure to trauma reminders (Thompson & Waltz, 2008) and there is growing evidence for its effectiveness with trauma-exposed populations (Au et al., 2017; Hoffart, Øktedalen & Langkaas, 2015; Winders, Murphy, Looney & O'Reilly). It may be a

beneficial adjunct to trauma-focused cognitive behaviour therapy (CBT; Beaumont, Galpin & Jenkins, 2012; Bowyer et al., 2013; Irons & Lad, 2017; Lee, 2009), particularly among survivors of sexual abuse (McLean, Steindl & Bambling, 2018). However, there is limited research about which interventions are most effective for survivors experiencing the highest levels of shame (Saraiya & Lopez-Castro, 2016). A formulation-driven approach taking account of the client's resources for tolerating a given intervention should be used.

Therapy should aim to create a sense of relational safety for the client. While this is important in therapy for any client, it may be particularly so for those high in shame. The therapist's role is to help clients experience and internalise new ways of being with others and in doing so is "both a real person and a proxy for the world" (Hycner, 1991, p. 66). However, there is the constant risk of being identified with shame-producing internalised others. Therapists may even be indirectly shaming by virtue of their presumed status as not traumatised and therefore not 'defective' (Stadter, 2011, p. 48). Shame may be apparent in the therapy session through its characteristic signs in the body of turning away and shrinking of the self (Tangney & Dearing, 2002b). However, as the experience of revealing shame can in itself be shaming, it may be hidden from both therapist and client (Stadter, 2011). This requires a continuous tracking on the part of the therapist to remain alert to shame in its many guises (Tangney & Dearing, 2011).

These findings need to be considered in the wider societal context, in which survivors of trauma frequently face stigma, rejection, and loss of status, with implications for help-seeking behaviour (Kennedy & Prock, 2016). This raises questions about the role clinical psychology can and should play in the public discourse. Movements such as Drop the Disorder and theoretical efforts such as the Power Threat Meaning Framework (Johnstone, 2018) are pushing the idea that we do a disservice to survivors of trauma by labelling them as disordered. Herman (1992) argues that these shifts in theoretical understanding require a

supportive political context in order to thrive. It would seem that the current focus on sexual abuse, such as in the #metoo movement, may be just such the context required to support these theoretical endeavours. However, Herman (1992, p. 2) also states that “denial, repression, and dissociation operate on a social as well as an individual level” and that the problem of trauma comes in and out of public consciousness cyclically (Herman, 1992, p. 2). Regardless of individual psychologists’ personal comfort with public and political engagement, there are many ways we can work in services to reduce the stigma that survivors of trauma face. By offering the same safe containment to teams as to clients, clinical psychology can support team capacity to think psychologically when challenged by service users’ behaviour, asking what has happened to them, not what is wrong with them (Johnstone, 2018; Kezelman & Stravropoulos, 2012).

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Section Four: Ethics Proposal

Lily Lewis

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Lancaster University, Lancaster, LA1 4YG

Word count: 4,961

Ethics Application Form

**Faculty of Health and Medicine Research Ethics Committee (FHMREC)
Lancaster University**

Application for Ethical Approval for Research

for additional advice on completing this form, hover cursor over 'guidance'.

Guidance on completing this form is also available as a word document

Title of Project: The relationship between attitudes about disclosure of trauma, self-conscious emotions and posttraumatic stress

Name of applicant/researcher: Lily Lewis

ACP ID number (if applicable)*: N/A

Funding source (if applicable) N/A

Grant code (if applicable): N/A

***If your project has *not* been costed on ACP, you will also need to complete the Governance Checklist [\[link\]](#).**

Type of study

☐ Involves existing documents/data only, or the evaluation of an existing project with no direct contact with human participants. **Complete sections one, *two* and four of this form**

☒ Includes *direct* involvement by human subjects. **Complete sections one, *three* and four of this form**

SECTION ONE

1. Appointment/position held by applicant and Division within FHM Trainee Clinical Psychologist, Doctorate in Clinical Psychology

2. Contact information for applicant:

E-mail: l.lewis2@lancaster.ac.uk

Telephone: 07807 520618 (please give a number on which you can be contacted at short notice)

Address: Doctorate in Clinical Psychology, Faculty of Health and Medicine, Furness College, Lancaster University, Lancaster, LA1 4YG

3. Names and appointments of all members of the research team (including degree where applicable)

Professor Bill Sellwood, Programme Director, PhD
Dr Kirsty Kennedy, Clinical Psychologist, DClinPsychol

3. If this is a student project, please indicate what type of project by marking the relevant box/deleting as appropriate: (please note that UG and taught masters projects should complete **FHMREC form UG-tPG**, following the procedures set out on the [FHMREC website](#))

PG Diploma ☐ Masters by research ☐ PhD Thesis ☐ PhD Pall. Care ☐
 PhD Pub. Health ☐ PhD Org. Health & Well Being ☐ PhD Mental Health ☐ MD ☐
 DClinPsy SRP ☐ [if SRP Service Evaluation, please also indicate here: ☐] DClinPsy Thesis ☒

4. Project supervisor(s), if different from applicant: Professor Bill Sellwood, Dr Kirsty Kennedy

5. Appointment held by supervisor(s) and institution(s) where based (if applicable):

Professor Bill Sellwood, Programme Director, Doctorate in Clinical Psychology, Lancaster University
 Dr Kirsty Kennedy, Clinical Psychologist in private practice

SECTION TWO

Complete this section if your project involves existing documents/data only, or the evaluation of an existing project with no direct contact with human participants

1. Anticipated project dates (month and year)

Start date:

End date:

2. Please state the aims and objectives of the project (no more than 150 words, in lay-person's language):

Data Management

For additional guidance on data management, please go to [Research Data Management](#) webpage, or email the RDM support email: rdm@lancaster.ac.uk

3. Please describe briefly the data or records to be studied, or the evaluation to be undertaken.

4a. How will any data or records be obtained?

4b. Will you be gathering data from websites, discussion forums and on-line 'chat-rooms' ☐ no

4c. If yes, where relevant has permission / agreement been secured from the website moderator? ☐ no

4d. If you are only using those sites that are open access and do not require registration, have you made your intentions clear to other site users? ☐ no

4e. If no, please give your reasons

5. What plans are in place for the storage, back-up, security and documentation of data (electronic, digital, paper, etc)? Note who will be responsible for deleting the data at the end of the storage period. Please ensure that your plans comply with General Data Protection Regulation (GDPR) and the (UK) Data Protection Act 2018.

6a. Is the secondary data you will be using in the public domain?

6b. If NO, please indicate the original purpose for which the data was collected, and comment on whether consent was gathered for additional later use of the data.

Please answer the following question *only* if you have not completed a Data Management Plan for an external funder

7a. How will you share and preserve the data underpinning your publications for at least 10 years e.g. PURE?

7b. Are there any restrictions on sharing your data?

8. Confidentiality and Anonymity

a. Will you take the necessary steps to assure the anonymity of subjects, including in subsequent publications?

b. How will the confidentiality and anonymity of participants who provided the original data be maintained?

9. What are the plans for dissemination of findings from the research?

10. What other ethical considerations (if any), not previously noted on this application, do you think there are in the proposed study? How will these issues be addressed?

SECTION THREE

Complete this section if your project includes *direct* involvement by human subjects

1. Summary of research protocol in lay terms (indicative maximum length 150 words):

People who have experienced trauma may benefit from talking about the trauma with other people. Those who don't talk about the trauma with others may experience higher levels of distress. However, research suggests that this may only be the case for people who experience high levels of shame. Further research is needed to confirm this and test whether other related emotions are also important, such as guilt and self-disgust. This may help services to better support people who have experienced trauma, by contributing to knowledge about how posttraumatic stress develops, and how interventions might aim to reduce it. The current study will recruit people who have experienced trauma to complete an online survey including measures of:

- * Experiences of trauma,
- * Attitudes about talking about the trauma,
- * Shame, guilt and self-disgust,
- * Distress about the trauma.

2. **Anticipated project dates (month and year only)**

Start date: August 2019

End date: December 2019

Data Collection and Management

For additional guidance on data management, please go to [Research Data Management](#) webpage, or email the RDM support email: rdm@lancaster.ac.uk

3. Please describe the sample of participants to be studied (including maximum & minimum number, age, gender):

Participants will be English speaking adults (aged 18 or over) of any gender who self-identify as having experienced a traumatic event or events at any age. The definition of a traumatic event will be guided by Criterion A in DSM-5, i.e. exposure to death, threatened death, actual or threatened sexual violence or actual or threatened serious injury, as experienced by the person themselves, witnessed in person happening to someone else, happened to someone close to them, or exposure as part of their job (American Psychiatric Association, 2013). Participants will be asked to complete the Life Events Checklist-5 to determine whether they meet these criteria.

G*Power was used to carry out sample size estimates, with three predictors and a medium effect size as

indicated in prior research. The minimum required sample size to detect a medium effect is estimated to be 119

and the study will aim to recruit at least this many participants. In order to detect a small effect, a sample size of

863 is estimated to be required. As the study will use an online survey, there is no upper limit on participant numbers.

4. How will participants be recruited and from where? Be as specific as possible. Ensure that you provide the *full versions* of all recruitment materials you intend to use with this application (eg adverts, flyers, posters).

The research will be advertised online, including via social media and message boards (see below for further details). Depending on the nature of the site, either a research poster or text advertisement will be posted to the site. Both of these are given in the Supporting Materials. The survey will also be listed on Lancaster University's Research Register.

The poster will be displayed as a hardcopy on Lancaster University campus, in other public spaces including shops and cafes, and waiting rooms of charitable non-NHS organisations, with permission.

Potential participants will indicate their interest in participation by following the link to the survey, where they will be given further information and tick to indicate that they understand key information about the study and consent to participate. Participants will then be asked their age. If any participants indicate that they are under the age of 18, they will not be asked any further questions, the survey will end and they will be taken to the debrief information.

Social Media

Social media platforms such as Facebook, LinkedIn and Twitter will be used to promote the research. Professional accounts will be created that link to the researcher's university email address, rather than using a personal account. A link to the survey will be posted to these social media platforms and shared, including on groups for survivors of trauma and people with mental health difficulties, with moderators'/administrators' permission. The links will also be shared to groups for clinical psychologists and groups specifically for the purpose of sharing research. The posts will invite others to share the research. Where the research is posted to a Facebook group, this will be done by group administrators.

Forums

The research will be shared to online forums, including those for people who have experienced trauma or are experiencing mental health difficulties, as well as general interest forums, following permission being granted by forum moderators/administrators.

This is likely to include but not be limited to the following forums, which are known to support the sharing of research:

Pandora's Project - <https://pandys.org>

PsychForums - <https://www.psychforums.com>

MyPTSD - <https://www.myptsd.com>

isurvive - <http://isurvive.org>

HealthfulChat - <http://www.healthfulchat.org/ptsd-chat-room.html>

Reddit PTSD forum - <https://www.reddit.com/r/ptsd/>

The research will also be posted to forums and websites specifically for the purposes of sharing research and reaching potential participants. This is likely to include, but not be limited to:

The Student Room - <https://www.thestudentroom.co.uk/forumdisplay.php?f=319>

Psychological Research on the Net - <https://psych.hanover.edu/research/exponnet.html>

Online Psychology Research – <http://onlinepsychresearch.co.uk>

Survey Tandem - <https://www.surveytandem.com>

The research may also be posted to fee-based services, which allow academic researchers to advertise to a pool of potential participants, such as Call for Participants – <https://www.callforparticipants.com>. This would be done through a one-off payment of £20 per advert that allows creation of a study page on the Call for Participants website. Call for Participants would then distribute the study page to individuals and organisations who have opted in to receive updates on studies requiring participants, and on their social media platforms.

5. Briefly describe your data collection and analysis methods, and the rationale for their use.

Data collection

After completing the online consent form, participants will be asked to enter the following demographic information: age, gender, nationality, education and employment status. Participants will then be asked to complete the following questionnaires estimated to take around 25 minutes to complete. If participants do not wish to answer any particular question on the survey they will have the option to select 'Prefer not to say'.

1) The nature of participants' traumatic experiences will be collected using the Life Experiences Checklist (LEC-5; Weathers et al., 2013). The LEC-5 is a self-report measure in which participants indicate which of 16 potentially traumatic events they have either experienced directly, witnessed, learned of happening to someone close to them, or that they have been exposed to as part of their job. The psychometric properties of the previous edition of the LEC have been demonstrated (Gray, Litz, Hsu & Lombardo, 2004), with minimal differences between the LEC and LEC-5.

2) Participants' posttraumatic stress will be measured using the Impact of Events Scale – Revised (IES-R; Weiss & Marmar, 1997). The IES-R is a 22-item self-report measure that asks participants to indicate how distressing each of a list of difficulties associated with posttraumatic stress have been in the past seven days, from 'Not at all' to 'Extremely'. The items are grouped into three subscales: Avoidance, Intrusions and Hyperarousal. The IES-R is one of the most widely used measures of posttraumatic stress in the research literature and has been used with participants who have

experienced a broad range of traumatic events. The IES-R has demonstrated good reliability and validity (Beck et al., 2008).

3) Attitudes towards disclosure will be assessed using the Disclosure of Trauma Questionnaire (DTQ; Mueller, Beauducel, Raschka & Maercker, 2000). The DTQ is a 34-item questionnaire measuring dysfunctional attitudes towards disclosure across three subscales: Reluctance to Talk, Urge to Talk and Emotional Reactions During the Disclosure. It also gives a total score across the three subscales. The DTQ has been used in published studies with a range of trauma survivors, including combat veterans, survivors of political imprisonment, emergency service workers and victims of crime. The DTQ shows good reliability and validity and predicts later posttraumatic stress (Mueller et al., 2000; Mueller, Moergeli & Maercker, 2008).

4) SCEs will be measured using The Guilt and Shame Proneness Scale (GASP; Cohen, Wolf, Panter & Insko, 2011) and The Self Disgust Scale-Revised (SDS-R; Powell, Overton & Simpson, 2015). The GASP was developed to distinguish between behavioural and cognitive and affective indicators of shame and guilt, and to distinguish between shame and guilt across multiple theoretical domains. The GASP shows good reliability and validity (Cohen et al., 2011). Wording of two items within the GASP was adjusted in order to make it culturally relevant for a broader audience. Item two was changed from “You are privately informed that you are the only one in your group that did not make the honor society because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible about attending school?” to “You are privately informed that you are the only one in your group that did not win an award because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible about attending school?”. Item nine was changed from “You secretly commit a felony. What is the likelihood that you would feel remorse about breaking the law?” to “You secretly commit a crime. What is the likelihood that you would feel remorse about breaking the law?”.

The GASP measures shame and guilt, but not self-disgust. The SDS-R will therefore be used for this purpose. The SDS-R shows good reliability and validity and psychometric properties and is one of the few scales designed to assess self-disgust (Powell et al., 2015).

After completing each measure participants will need to select “submit” in order to enter their responses for that measure. At the end of the survey participants will be shown the debrief information. They will then be asked if they would like to provide their email address to receive feedback on the results of the study or to enter the £50 Amazon voucher prize draw. If participants indicate that they would like to do so they will click a link to a separate survey, which will ask them which of these two options they would like to opt in to and will also ask them to provide their email address. If the participant does not wish to provide their email address for either of these purposes they will be prompted to select a button which will close the survey. At the end of the data collection period, the applicant will assign an arbitrary number to each person who has opted into the prize draw and will use a random number generator to randomly select five participants to win the prize draw.

Data analysis

Correlations will be performed to examine the general strength and direction of the relationships between the variables.

The PROCESS model in SPSS will be used to test the moderation model. This will involve the use of multiple regression to test (a) whether disclosure status predicts post-traumatic stress, (b) whether SCEs predict post-traumatic stress and (c) whether the interaction between disclosure status and SCEs predicts post-traumatic stress, i.e. whether the relationship between disclosure status and post-traumatic stress varies at different levels of SCEs. This will indicate whether SCEs moderate the

relationship between disclosure status and post-traumatic stress. These analyses will control for potential confounding variables. For example, analyses concerning shame will control for guilt and self-disgust as these are likely to be highly correlated with shame.

6. What plan is in place for the storage, back-up, security and documentation of data (electronic, digital, paper, etc.)? Note who will be responsible for deleting the data at the end of the storage period. Please ensure that your plans comply with General Data Protection Regulation (GDPR) and the (UK) Data Protection Act 2018.

Data collected by the online survey software will be downloaded and entered into SPSS and stored on the applicant's H drive on Lancaster University's secure server. This database will contain quantitative data indicating participants' responses to the survey questions. The database will be completely anonymised and numbers used as participant identifiers. All analyses will be conducted via Lancaster University's VPN from the H drive. Data will not be stored on any portable devices. After the thesis is submitted, the data will be deleted from the personal computer and will be transferred to the Doctorate in Clinical Psychology programme via encrypted memory stick. The programme will store the data and delete them after 10 years.

Email addresses of any participants who have opted into the prize draw will be stored in a file separate to the responses to the research survey. This file will be stored in a password protected folder on the applicant's H drive on Lancaster University's secure server and will not be accessible to anyone else.

7. Will audio or video recording take place? ☐ no ☐ audio ☐ video

a. Please confirm that portable devices (laptop, USB drive etc) will be encrypted where they are used for identifiable data. If it is not possible to encrypt your portable devices, please comment on the steps you will take to protect the data.

Data will not be downloaded onto any portable devices.

b What arrangements have been made for audio/video data storage? At what point in the research will tapes/digital recordings/files be destroyed?

N/A – no audio or video data to be collected.

Please answer the following questions *only* if you have not completed a Data Management Plan for an external funder

8a. How will you share and preserve the data underpinning your publications for at least 10 years e.g. PURE?

After submission of the thesis, the data will be shared with Lancaster University's Doctorate in Clinical Psychology programme, which will keep them for a minimum of 10 years.

8b. Are there any restrictions on sharing your data ?

Data will not be shared with other researchers.

9. Consent

a. Will you take all necessary steps to obtain the voluntary and informed consent of the prospective participant(s) or, in the case of individual(s) not capable of giving informed consent, the permission of a legally authorised representative in accordance with applicable law? ☒ yes

b. Detail the procedure you will use for obtaining consent?

After clicking on the link to the survey, potential participants will be given information about: (1) inclusion and exclusion criteria, (2) the purpose of the research (3) the topics they will be asked about. They will also be informed that they may stop participation at any time by closing the browser window, but that once they have pressed the 'Submit' button at the bottom of each page, the data for that survey will have been entered and it will not be possible to delete it. For all submitted data the researcher will not know which data is theirs and so will not be able to delete it. Potential participants will then be shown a consent form stating that if they choose to proceed this will be taken as consent to participation in the study. Consent will then be indicated by the participant clicking to proceed to the questionnaires. Identifying information such as the participant's name will not be collected as part of this process.

10. What discomfort (including psychological eg distressing or sensitive topics), inconvenience or danger could be caused by participation in the project? Please indicate plans to address these potential risks. State the timescales within which participants may withdraw from the study, noting your reasons.

A number of ethical issues have been identified. Measures to address these risks are given below, and have been developed based on the British Psychological Society's (BPS) Code of Human Research Ethics (BPS, 2014) and (Seedat, Pienaar, Williams & Stein, 2004).

Participants may experience distress in response to the content of the psychometrics used, which may bring to mind difficult experiences and topics. A number of steps will be taken to ameliorate the potential for distress:

- Potential participants will be given full information on the topics they would be asked about if they chose to participate in the study, before consenting to participation.
- Participants will be informed that they can exit the survey at any point they wish.
- Sources of support that participants may wish to access should they experience distress will be offered. These will be given both before and after the survey, on the Patient Information Sheet and Debrief Sheet. At the bottom of each page of questions a link to a page listing the same sources of support will also be given.

11. What potential risks may exist for the researcher(s)? Please indicate plans to address such risks (for example, noting the support available to you; counselling considerations arising from the sensitive or distressing nature of the research/topic; details of the lone worker plan you will follow, and the steps you will take).

No risks have been identified for the researcher. However, if distress does arise, support will be available to the researcher through supervision with the field supervisor, Dr Kirsty Kennedy. Participants will be given the researcher's university email address should they wish to make contact about the research. The researcher's personal contact details will not be given.

12. Whilst we do not generally expect direct benefits to participants as a result of this research, please state here any that result from completion of the study.

There may be no direct benefits to participating in this study. However, it is possible that participants may appreciate the time and space to reflect on their experiences. There may be possible benefits to clinical services should the research lead to recommendations about how survivors can be supported in the process of disclosure.

13. Details of any incentives/payments (including out-of-pocket expenses) made to participants:

Participants will be able to opt in to a prize draw to win a £50 Amazon voucher after participation. Five participants will be selected to win. If participants wish to enter the prize draw, they will be instructed to click on a link to a second survey. They will then be shown information about the prize draw and will tick a box indicating consent for their email address to be stored for the purpose of entering the prize draw and for the researcher to contact them if they win. Email addresses will be stored in a password protected folder on the applicant's H drive on Lancaster University's secure server, in a separate file to participants' responses to the main survey. The database containing email addresses will not be downloaded onto any portable devices and only the applicant will have access to it. At the end of the data collection period, the applicant will assign an arbitrary number to each person who has opted into the prize draw and will use a random number generator to randomly select five participants to win the prize draw. These participants will then be contacted via the email address provided. If any of these are not valid email addresses, or a response is not received within four weeks, a further participant will be selected to win. Email addresses will be deleted after data collection is complete and five participants have received the prize.

14. Confidentiality and Anonymity

a. Will you take the necessary steps to assure the anonymity of subjects, including in subsequent publications? ☒ yes

b. Please include details of how the confidentiality and anonymity of participants will be ensured, and the limits to confidentiality.

No identifying information (e.g. name or address) will be collected in the main survey. Data will be stored on the applicant's H drive on Lancaster University's secure server in a password-protected folder. Data will not be downloaded onto any portable devices.

Participants will be given the opportunity to provide their email address in order to receive feedback on the results of the study or to enter a prize draw. If participants do opt in to this, their email address will be entered into a separate survey form and will be stored separately from their questionnaire responses and so it will not be possible to link their questionnaire responses with their email address. Email addresses will be stored in a password protected folder on Lancaster University's secure server and will be accessible only to the researcher.

The only circumstance in which it is anticipated that the researcher may need to break confidentiality is if a participant contacts the researcher via email with information that suggests there may be risk of harm to themselves or others. In the unlikely event that this happens, the researcher may need to ask for further information and pass this on to an appropriate person. This would be carried out under the guidance of the research supervisory team. Participants will be informed about this possibility in the participant information sheet and will tick to indicate that they understand this in the consent form.

The project will be written up as an empirical paper forming part of a thesis submitted in partial fulfilment of Lancaster University's Doctorate in Clinical Psychology. It is also intended for submission for publication in an academic journal. A brief summary of the research will be written up for participants who have opted in to receive feedback on results and for any organisations or forums that have facilitated the distribution of the survey. Data included in these documents will be group level quantitative statistics and completely anonymous and confidential.

15. If relevant, describe the involvement of your target participant group in the *design and conduct* of your research.

Feedback on recruitment methods has been sought from online support groups for survivors of trauma. At the time of writing, the following groups have provided feedback:

- * isurvive (<https://isurvive.org/>)
- * HealthfulChat's PTSD support group (<https://www.healthfulchat.org/ptsd-chat-room.html>)
- * Women's Aid (<https://www.womensaid.org.uk/>)
- * Support Groups (<https://www.supportgroups.com/>)
- * HealthUnlocked (<https://healthunlocked.com/>)
- * Reddit PTSD forum - <https://www.reddit.com/r/ptsd/>

HealthfulChat, isurvive and Reddit's PTSD forum have stated that they support the posting of research on their forums and given guidance on requirements and the process for doing so. Women's Aid, Support Groups and HealthUnlocked have stated that they do not support the posting of research on their forum.

16. What are the plans for dissemination of findings from the research? If you are a student, include here your thesis.

The data will be seen by the applicant and the research tutor. Results of the research will be disseminated by an academic thesis submitted as part of Lancaster University's Doctorate in Clinical Psychology. It is also intended that results of the research will be submitted for publication to an academic journal. A brief summary of the research will be written up. This will be emailed to those participants who have opted in to receive feedback on the results of the study, and will also be sent to any organisations or forums that have facilitated the distribution of the survey.

17. What particular ethical considerations, not previously noted on this application, do you think there are in the proposed study? Are there any matters about which you wish to seek guidance from the FHMREC?

The ethical considerations relevant to the study have been outlined in sections 10 and 11 above.

SECTION FOUR: signature

Applicant electronic signature: Lily Lewis

Date 07/08/19

Student applicants: please tick to confirm that your supervisor has reviewed your application, and that they are happy for the application to proceed to ethical review ☐

Project Supervisor name (if applicable): Professor Bill Sellwood
07/08/19

Date application discussed

Submission Guidance

1. Submit your FHMREC application by email to Becky Case (fhmresearchsupport@lancaster.ac.uk) as two separate documents:
 - i. **FHMREC application form.**
 Before submitting, ensure all guidance comments are hidden by going into 'Review' in the menu above then choosing *show markup>balloons>show all revisions in line*.

ii. **Supporting materials.**

Collate the following materials for your study, if relevant, into a single word document:

- a. Your full research proposal (background, literature review, methodology/methods, ethical considerations).
- b. Advertising materials (posters, e-mails)
- c. Letters/emails of invitation to participate
- d. Participant information sheets
- e. Consent forms
- f. Questionnaires, surveys, demographic sheets
- g. Interview schedules, interview question guides, focus group scripts
- h. Debriefing sheets, resource lists

Please note that you DO NOT need to submit pre-existing measures or handbooks which support your work, but which cannot be amended following ethical review. These should simply be referred to in your application form.

2. Submission deadlines:

- i. Projects including direct involvement of human subjects [**section 3 of the form was completed**]. The *electronic* version of your application should be submitted to [Becky Case](#) **by the committee deadline date**. Committee meeting dates and application submission dates are listed on the [FHMREC website](#). Prior to the FHMREC meeting you may be contacted by the lead reviewer for further clarification of your application. Please ensure you are available to attend the committee meeting (either in person or via telephone) on the day that your application is considered, if required to do so.
- ii. The following projects will normally be dealt with via chair's action, and may be submitted at any time. [**Section 3 of the form has *not* been completed, and is not required**]. Those involving:
 - a. existing documents/data only;
 - b. the evaluation of an existing project with no direct contact with human participants;
 - c. service evaluations.

You must submit this application from your Lancaster University email address, and copy your supervisor in to the email in which you submit this application

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Appendix 4-1: Research protocol

Title: How do self-conscious emotions and attitudes about disclosure impact post-traumatic stress among survivors of trauma?

Applicant: Lily Lewis

Supervisors

Name	Job role	Organisation	Supervisory role
Professor Bill Sellwood	Programme Director	Lancaster University, Faculty of Health and Medicine	Research tutor
Dr Kirsty Kennedy	Clinical Psychologist	Private practice	Field supervisor, clinical expertise

Introduction

For survivors of trauma, disclosing their experiences can be a key part of recovery, and may lead to reductions in depression, anxiety and post-traumatic stress (Bernard, Jackson & Jones, 2006; Brown & Heimberg, 2001; Carson *et al.*, 2019). However, disclosure can be extremely difficult and many survivors do not disclose to anyone, which has been associated with greater post-traumatic stress (Ahrens, Rios-Mandel, Isas, & del Carmen Lopez, 2010; Dailey & Claus, 2001; Jacques-Tiura, Tkatch, Abbey & Wegner, 2010; Kohler, Schafer, Goebel, Pedersen, 2018).

Despite this, the relationship between disclosure and posttraumatic stress is not straightforward. Carson *et al.* (2019) found that post-traumatic stress in survivors of sexual assault is higher among non-disclosers than disclosers, but only for those who stated that they did not disclose due to shame. Among non-disclosers who did not give shame as a reason, post-traumatic stress did not differ from disclosers. This suggests that the reasons behind a non-disclosure matter, and those people who wish to disclose but feel too ashamed to do so may suffer increased distress.

Shame is high among survivors of trauma (Amstadter, & Vernon, 2008; Ellenbogen, Trocme, Wekerle & McLeod, 2015; Feiring, Taska & Lewis, 2002; La Bash & Papa, 2014; You, Talbot, He & Conner, 2012; Vidal & Petrak, 2007). Consistent with Carson *et al.*'s findings, shame may be a barrier to disclosure and a predictor of distress. Many studies report that survivors endorse shame as a reason for not disclosing their traumatic experiences (Carson

et al., 2019; Lemaigre, Taylor & Gittoes, 2017; Weiss, 2010; Zinzow & Thompson, 2011). Higher shame in survivors of trauma has been associated with post-traumatic stress (Feiring & Taska, 2005; La Bash & Papa, 2014; Vidal & Petrak, 2007), and suicidal ideation (Kealy, Spidel & Ogrodniczuk, 2017; You *et al.*, 2012). This may be due to the silencing effects of shame, which may reduce opportunities for processing of the abuse, such as disclosure (Feiring & Taska, 2005).

Shame is one of the self-conscious emotions (SCEs). SCEs are distinguished from basic emotions, such as sadness and anger, by the element of self-evaluation (Tangney & Dearing, 2002). SCEs are generally considered to include shame, guilt, embarrassment, and pride (Tracy, Robins & Tangney, 2007), though much of the literature focuses on shame and guilt. Shame relates to how we are seen by a real or imagined other person (Lutwak, Panish & Ferrari, 2003), and involves evaluation of the self as fundamentally flawed (Dearing & Tangney, 2011) or bad (Gilbert, 2011; Tracy, Robins & Tangney, 2007). Whereas shame involves a global negative evaluation of the self, guilt involves negative evaluation of a particular behaviour (Lewis, 1971). Self-disgust is also gaining recognition as a distinct SCE and is defined as a persistent or recurring feeling of disgust, brought about by the self or aspects of it that are both enduring and relevant to the person's sense of self (Powell, Simpson and Overton (2015).

Guilt (Amstadter & Vernon, 2008) and self-disgust (Badour, Feldner, Babson, Blumenthal & Dutton, 2013) are also high in trauma survivors. Given that guilt has been implicated in non-disclosure (Lemaigre *et al.*, 2017) and both guilt (Aakvaag *et al.*, 2016; Kubany, 1995) and self-disgust (Badour *et al.* 2013; Clarke, Simpson & Varese, 2018) are associated with post-traumatic stress in survivors, future research should investigate the role of these other SCEs emotions, not just shame. The existing literature relies on participants stating that they experience shame. The word shame is often used interchangeably with and to indicate other SCEs in lay language. Clear measurement of the SCEs is therefore required. In addition, the existing literature on disclosure has focused on survivors of sexual abuse, despite the importance of SCEs in other traumas. Many survivors may have experienced multiple traumas, some of which they have disclosed and some of which they have not and so the current study will examine attitudes towards disclosure.

Therefore, research is required that investigates whether negative attitudes about disclosure are associated with increased posttraumatic stress, and whether SCEs moderate this relationship, among people who have experienced trauma. The hypotheses are:

- SCEs and negative attitudes about disclosure will be positively correlated with posttraumatic stress;
- The relationship between disclosure attitudes and post-traumatic stress will be moderated by SCEs: post-traumatic stress will be predicted by negative disclosure attitudes, but only among participants high in SCEs.

Method

Participants

Participants will be English speaking adults (aged 18 or over) of any gender who self-identify as having experienced a traumatic event or events at any age. The definition of a traumatic event will be guided by Criterion A in DSM-5 (American Psychiatric Association, 2013), i.e. exposure to death, threatened death, actual or threatened sexual violence or actual or threatened serious injury, as experienced by the person themselves, witnessed in person happening to someone else, happened to someone close to them, or exposure as part of their job. Participants will be asked to complete the Life Events Checklist-5 to determine whether they meet these criteria.

G*Power was used to carry out sample size estimates, with three predictors and a medium effect size as indicated in prior research. The minimum required sample size to detect a medium effect is estimated to be 119 and the study will aim to recruit at least this many participants. In order to detect a small effect, a sample size of 863 is estimated to be required. Although this is unlikely to be achieved, this would be the maximum number of participants that the study aimed to recruit. However, as the study will use an online survey, it is possible that more participants may enter before the survey has been closed.

Design

In order to test the relationships between SCEs, disclosure attitudes and post-traumatic stress, a quantitative methodology will be used. This will allow for these variables to be measured and their interactions examined, while controlling for potential confounding variables. As the study intends to examine these relationships at a fixed point in time, an observational cross-sectional method will be used.

- The variables measured will be as follows, along with the tools used to measure them:

- Traumatic life experiences: Life Events Checklist 5 (Weathers, Blake, Schnurr, Kaloupek, Marx & Keane, 2013).
- Attitudes about disclosure: Disclosure of Trauma Questionnaire (DTQ; Mueller, Beauducel, Raschka & Maercker, 2000).
- Self-conscious emotions: The Guilt and Shame Proneness Scale (GASP; Cohen, Wolf, Panter & Inshko, 2011) and The Self Disgust Scale - Revised (SDS-R; Powell, Overton & Simpson, 2015).
- Symptoms of post-traumatic stress: Impact of Events Scale – Revised (IES-R; Weiss & Marmar, 1997).

Confounding variables, such as level of trauma, will be identified and controlled within these analyses.

Materials

Materials used in the study will be the following questionnaires. All questionnaires are shown in this document below.

1) The nature of participants' traumatic experiences will be collected using the Life Experiences Checklist (LEC-5; Weathers et al., 2013). The LEC-5 is a self-report measure in which participants indicate which of 16 potentially traumatic events they have either experienced directly, witnessed, learned of happening to someone close to them, or that they have been exposed to as part of their job. The psychometric properties of the previous edition of the LEC have been demonstrated (Gray, Litz, Hsu & Lombardo, 2004), with minimal differences between the LEC and LEC-5.

2) Participants' posttraumatic stress will be measured using the Impact of Events Scale – Revised (IES-R; Weiss & Marmar, 1997). The IES-R is a 22-item self-report measure that asks participants to indicate how distressing each of a list of difficulties associated with posttraumatic stress have been in the past seven days, from 'Not at all' to 'Extremely'. The items are grouped into three subscales: Avoidance, Intrusions and Hyperarousal, as well as giving a total score. The IES-R is one of the most widely used measures of posttraumatic stress in the research literature and has been used with participants who have experienced a broad range of traumatic events. The IES-R has demonstrated good reliability and validity (Beck *et al.*, 2008).

3) Attitudes towards disclosure will be assessed using the Disclosure of Trauma Questionnaire (DTQ; Mueller, Beauducel, Raschka & Maercker, 2000). The DTQ is a 34-item

questionnaire measuring dysfunctional attitudes towards disclosure across three subscales: Reluctance to Talk, Urge to Talk and Emotional Reactions During the Disclosure. It also gives a total score across the three subscales. The DTQ has been used in published studies with a range of trauma survivors, including combat veterans, survivors of political imprisonment, emergency service workers and victims of crime. The DTQ shows good reliability and validity and predicts later posttraumatic stress (Mueller et al., 2000; Mueller, Moergeli & Maercker, 2008).

4) SCEs will be measured using the The Guilt and Shame Proneness Scale (GASP; Cohen, Wolf, Panter & Inshko, 2011) and The Self Disgust Scale-Revised (SDS-R; Powell, Overton & Simpson, 2015). The GASP was developed to distinguish between behavioural and cognitive and affective indicators of shame and guilt, and to distinguish between shame and guilt across multiple theoretical domains. The GASP shows good reliability and validity (Cohen et al., 2011). Wording of two items within the GASP was adjusted in order to make it more global and less USA-specific. Item two was changed from “You are privately informed that you are the only one in your group that did not *make the honor society* because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible about attending school?” to “You are privately informed that you are the only one in your group that did not *win an award* because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible about attending school?”. Item nine was changed from “You secretly commit a *felony*. What is the likelihood that you would feel remorse about breaking the law?” to “You secretly commit a *crime*. What is the likelihood that you would feel remorse about breaking the law?”. The GASP measures shame and guilt, but not self-disgust. The SDS will therefore be used for this purpose. The SDS shows good reliability and validity and psychometric properties and is one of the few scales designed to assess self-disgust (Powell, Overton & Simpson, 2015).

Procedure

The research will be advertised online, including via social media and message boards (see below for further details). Depending on the nature of the site, either a research poster or text advertisement will be posted. Both of these are given in the Supporting Materials below. The survey will also be listed on Lancaster University’s Research Register. The poster will be displayed as a hardcopy on Lancaster University campus, in other public

spaces including shops and cafes, and waiting rooms of charitable non-NHS organisations, with permission.

Potential participants will indicate their interest in participation by following the link to the survey, where they will be given further information about 1) inclusion and exclusion criteria, (2) the purpose of the research and (3) the topics they will be asked about. They will also be informed that they may stop participation at any time by closing the browser window, but that once they have pressed the 'Submit' button at the bottom of a page, the data for that survey will have been entered and it will not be possible to delete it. For all submitted data, the researcher will not know which data are theirs and so will not be able to delete them. Potential participants will then be shown a consent form stating that if they choose to proceed this will be taken as consent to participation in the study. Consent will then be indicated by the participant clicking to proceed to the questionnaires. Identifying information such as the participant's name will not be collected as part of this process.

After indicating consent to participate, participants will be asked to enter the following demographic information: age, gender, nationality, education and employment status. If any participants indicate that they are under the age of 18, they will not be asked any further questions, the survey will end and they will be taken to the debrief information. Participants over the age of 18 will be asked to complete the questionnaires, estimated to take around 25 minutes.

After completing each measure participants will need to select "submit" in order to enter their responses for that measure. If participants do not wish to answer any particular question on the survey they will have the option to select 'Prefer not to say'. After completing all of the measures participants will be shown the debrief information.

Participants will be able to opt in to a prize draw to win a £50 Amazon voucher after participation. Five participants will be selected to win. If participants wish to enter the prize draw, they will be instructed to click on a link to a second survey. They will then be shown information about the prize draw and will tick a box indicating consent for their email address to be stored for the purpose of entering the prize draw and for the researcher to contact them if they win. At the end of the data collection period, the applicant will assign an arbitrary number to each person who has opted into the prize draw and will use a random number generator to randomly select five participants to win the prize draw. These participants will then be contacted via the email address provided. If any of these are not

valid email addresses, or a response is not received within four weeks, a further participant will be selected to win. If the participant does not wish to provide their email address for either of these purposes they will be prompted to select a button which will close the survey.

Proposed analysis

The amount of missing data will be assessed and based on this an appropriate method for dealing with missing data will be selected and applied. Data will be checked to ensure that they meet the assumptions of regression. Correlations will be performed to examine the general strength and direction of the relationships between the variables.

The PROCESS model in SPSS will be used to test the moderation model. This will involve the use of multiple regression to test (a) whether disclosure status predicts post-traumatic stress, (b) whether SCEs predict post-traumatic stress and (c) whether the interaction between disclosure status and SCEs predicts post-traumatic stress, i.e. whether the relationship between disclosure status and post-traumatic stress varies at different levels of SCEs. This will indicate whether SCEs moderate the relationship between disclosure status and post-traumatic stress. These analyses will control for potential confounding variables. For example, analyses concerning shame will control for guilt and self-disgust as these are likely to be highly correlated with shame.

Practical issues

Recruitment

Social media platforms such as Facebook, LinkedIn and Twitter will be used to promote the research. Professional accounts will be created that link to the researcher's university email address, rather than using a personal account. A link to the survey will be posted to these social media platforms and shared, including on groups for survivors of trauma and people with mental health difficulties, with moderators'/administrators' permission. The links will also be shared to groups for clinical psychologists and groups specifically for the purpose of sharing research. The posts will invite others to share the research. Where the research is posted to a Facebook group, this will be done by group administrators.

The research will be shared to online forums, including those for people who have experienced trauma or are experiencing mental health difficulties, as well as general interest forums, following permission being granted by forum moderators/administrators.

This is likely to include but not be limited to the following forums, which are known to support the sharing of research:

- Pandora's Project - <https://pandys.org>
- PsychForums - <https://www.psychforums.com>
- MyPTSD - <https://www.myptsd.com>
- isurvive - <http://isurvive.org>
- HealthfulChat - <http://www.healthfulchat.org/ptsd-chat-room.html>
- Reddit PTSD forum - <https://www.reddit.com/r/ptsd/>

The research will also be posted to forums and websites specifically for the purposes of sharing research and reaching potential participants. This is likely to include, but not be limited to:

- The Student Room -
<https://www.thestudentroom.co.uk/forumdisplay.php?f=319>
- Psychological Research on the Net -
<https://psych.hanover.edu/research/exponnet.html>
- Online Psychology Research – <http://onlinepsychresearch.co.uk>
- Survey Tandem - <https://www.surveytandem.com>

The research may also be posted to fee-based services, which allow academic researchers to advertise to a pool of potential participants, such as Call for Participants – <https://www.callforparticipants.com>. This would be done through a one-off payment of £20 per advert that allows creation of a study page on the Call for Participants website. Call for Participants would then distribute the study page to individuals and organisations who have opted in to receive updates on studies requiring participants, and on their social media platforms.

Feedback on recruitment methods has been sought from online support groups for survivors of trauma. At the time of writing, the following groups have provided feedback:

- isurvive (<https://isurvive.org/>)
- HealthfulChat's PTSD support group (<https://www.healthfulchat.org/ptsd-chat-room.html>)
- Women's Aid (<https://www.womensaid.org.uk/>)
- Support Groups (<https://www.supportgroups.com/>)
- HealthUnlocked (<https://healthunlocked.com/>)

- Reddit PTSD forum - <https://www.reddit.com/r/ptsd/>

HealthfulChat, isurvive and Reddit's PTSD forum have stated that they support the posting of research on their forums and given guidance on requirements and the process for doing so. Women's Aid, Support Groups and HealthUnlocked have stated that they do not support the posting of research on their forum.

Ethical concerns

Confidentiality

The following steps will be taken to protect participants' confidentiality. Data collected by the online survey software will be downloaded and entered into SPSS and stored on the applicant's H drive on Lancaster University's secure server in a password protected folder. This database will contain quantitative data indicating participants' responses to the survey questions. The database will be completely anonymised and numbers used as participant identifiers. All analyses will be conducted via Lancaster University's VPN from the H drive. Data will not be stored on any portable devices.

Email addresses of any participants who have opted into the prize draw will be stored in a file separate to the responses to the research survey. This file will be stored in a password protected folder on the applicant's H drive on Lancaster University's secure server and will not be accessible to anyone else.

The only circumstance in which it is anticipated that the researcher may need to break confidentiality is if a participant contacts the researcher via email with information that suggests there may be risk of harm to themselves or others. In the unlikely event that this happens, the researcher may need to ask for further information and pass this on to an appropriate person. This would be carried out under the guidance of the research supervisory team. Participants will be informed about this possibility in the participant information sheet and will tick to indicate that they understand this in the consent form.

Data included in any disseminated documents will be group level quantitative statistics and completely anonymous and confidential.

Potential distress caused for participants

Participants may experience distress in response to the content of the psychometrics used, which may bring to mind difficult experiences and topics. A number of steps will be taken to ameliorate the potential for distress, which have been developed based on the

British Psychological Society's (BPS) Code of Human Research Ethics (BPS, 2014), and Seedat, Pienaar, Williams and Stein (2004):

- Potential participants will be given full information on the topics they would be asked about, including a sample question, before consenting to participation.
- Participants will be informed that they can exit the survey at any point they wish.
- When the participant completes the survey, debrief information will be provided. This will include a list of sources of support.

Impact on researcher

No risks have been identified for the researcher. However, if distress does arise, support will be available to the researcher through supervision with the field supervisor, Dr Kirsty Kennedy. Participants will be given the researcher's university email address should they wish to make contact about the research. The researcher's personal contact details will be not be given.

Timescales

June/July 2019

Develop full research protocol

Submit for ethical review

June - August 2019

Data collection

September 2019

Data analysis

Research paper first draft

October 2019

Research paper second draft

November 2019

Thesis hand in

December 2019

Viva

January 2020

Prepare manuscript for submission to journal

Appendix 4-2: Online/In Print Study Advertisement

Have you experienced a traumatic event? Research participants needed for online survey (£50 prize draw).

What is it about? The research is about how talking with other people about our traumatic experiences affects our levels of post-traumatic stress, and the role that particular emotions may play in this.

What does it involve? You will be asked to complete an anonymous, online survey. This will take around 25 minutes. As a thank you for your time you will have the option to enter a prize draw from which five people will be selected to win a £50 Amazon voucher.

Who am I? My name is Lily Lewis and I'm a Trainee Clinical Psychologist with Lancaster University. The research forms part of my doctoral thesis. I'm really passionate about this subject and hope that my research will help services to understand how best to support people who have experienced trauma.

If you would like to know more, or would like to take part please follow this link: [link to be inserted here]. Thank you!

Appendix 4-3: Recruitment Poster

Health & Medicine | **Lancaster University** 

Who am I? My name is Lily Lewis and I'm a Trainee Clinical Psychologist.

I hope that my research will help services to understand how best to support people who have experienced trauma.

Have you had a traumatic experience?

Research participants needed for online survey
£50 prize draw

What does it involve?
You will be asked to complete an anonymous, online survey. This will take around 25 minutes.
The research is about how talking about traumatic experiences with other people is linked to psychological distress.

Want to know more?
Great! Please follow this link:
https://lancasteruni.eu.qualtrics.com/jfe/form/SV_3Dk6eVTQteGZehT

Appendix 4-4: Participant Information Sheet

Who is the researcher?

My name is Lily Lewis. I am a Trainee Clinical Psychologist with Lancaster University. I am carrying out this research as part of my Doctorate in Clinical Psychology. Please take the time to read this information sheet, which will tell you what the research is about and what it will involve. If you have any questions or want more information before deciding whether to take part you can contact me at the email address below.

What is the study about?

After experiencing a traumatic event some people go on to develop long standing psychological difficulties, but not everyone does. We're trying to find out more about what leads some people to experience more long-term distress than others. We're aiming to find out whether attitudes about talking about the traumatic experience with other people impact on distress about the trauma, and how feelings about the self influence this. If you are aged 18 years or over and have experienced a traumatic event at any time in your life you are eligible to take part.

What will I be asked to do if I take part?

If you decide you would like to participate, you will be asked to complete an anonymous online survey. This will ask you some information about yourself, such as age and gender identity, and you will be asked to tick which kinds of traumatic events you have experienced. It will then take you through four brief questionnaires about your thoughts and feelings about talking about the trauma with other people, your feelings about yourself, and your experiences of posttraumatic stress. The surveys will take around 25 minutes. If there are any questions that you don't want to answer you will have the option to select 'Prefer not to say'.

Do I have to take part?

You don't have to take part. If you decide to take part and then change your mind while you are completing it you can withdraw by closing the survey. You will be asked to submit your data at the bottom of each page of the survey. It's important to know that once you click submit at the bottom of a page, it will not be possible to withdraw your responses entered on that page. The survey is anonymous so the researcher won't know which data are yours and will not be able to delete it.

Will my data be identifiable?

Your data will not be identifiable. All the information you provide will be anonymous – you will not be asked to give your name or address or any other identifying information. The

data will be stored in password protected folders that only the researcher has access to. Data will only be shared with research supervisors for the purposes of guiding the analysis. At the end of the study, the data will be transferred to Lancaster University's secure server and stored securely there for a maximum of 10 years, after which time it will be deleted.

If you provide your email address to be updated on the results of the study and/or to enter the prize draw, it will be stored in a password protected file. Your email address is entered in a separate file to your survey responses and so it will not be linked to your data.

The only circumstance in which I might have to break confidentiality is if you contacted me directly and told me something that made me concerned for the safety of you or someone else. In this circumstance I may need to ask you for further information and inform somebody else who could help.

For further information about how Lancaster University processes personal data for research purposes and your data rights please visit our webpage:
www.lancaster.ac.uk/research/data-protection.

What will happen to the results of the study?

The results will be summarised and reported in a thesis and may be submitted for publication in an academic or professional journal. A brief summary will be written up for participants who opt in to receiving this, and for any organisations or forums that have facilitated distribution of the research survey. The results will be reported for the whole group of participants, not individuals, and the reports will contain no personal or identifying information.

Are there any risks?

Some of the survey questions may feel sensitive, such as "I find myself repulsive", and some ask you to report traumatic events. However, the surveys have been used in research before and should not cause undue distress. At the end of the survey you will be given information about possible sources of support should you feel distressed.

Are there any benefits to taking part?

There may be no direct benefits to you in taking part. However, you might appreciate the time to reflect on your experiences. The findings may help to build understanding of psychological distress after trauma and may help to improve services for people in the future. There will also be the opportunity to enter a £50 Amazon voucher prize draw at the end. Five participants who enter this prize draw will be selected to win.

Who has reviewed the project?

This study has been reviewed and approved by the Faculty of Health and Medicine Research Ethics Committee at Lancaster University.

Where can I obtain further information about the study if I need it?

If you have any questions about the study, please contact the main researcher:

Lily Lewis
 Trainee Clinical Psychologist
 Telephone: 01524 592754
 Email: l.lewis2@lancaster.ac.uk
 Clinical Psychology
 Division of Health Research
 Lancaster University
 Lancaster
 LA1 4YG

You may also contact the main researcher's supervisors:

Professor Bill Sellwood
 Programme Director
 Telephone: +44 (0)1524 593998
 Email: b.sellwood@lancaster.ac.uk
 Clinical Psychology
 Division of Health Research
 Lancaster University
 Lancaster
 LA1 4YG

Dr Kirsty Kennedy
 Clinical Psychologist
 Telephone: 07954 996360
 Email: kennedys.kirsty@gmail.com

Sources of support

If you experience any distress while taking part in the study, you might wish to contact some of the following sources of support to help you to manage this. You may also wish to contact your local GP/family doctor or hospital emergency department. These sources are also given at the end of the survey.

UK resources:

- *Victim Support* provides specialist practical and emotional support to victims of crime.
 Telephone: 08 08 16 89 111
 Website: www.victimsupport.org.uk
- *Mind* provides information and advice to people experiencing mental health difficulties.
 Telephone: 0300 123 3393
 Email: info@mind.org.uk

Website: <https://www.mind.org.uk>

- *The Samaritans* is a 24-hour helpline for anyone in need. It is staffed by trained volunteers.
Telephone: 116 123
Email: jo@samaritans.org
Website: www.samaritans.org
- *The Survivors Trust* is an umbrella agency connecting 130 organisations across the UK offering support to survivors of sexual abuse.
Telephone: 0808 801 0818
Email: info@thesurvivorstrust.org
Website: www.thesurvivorstrust.org

US resources:

- *National Helpline* Provides 24-hour free and confidential referrals and information about mental and/or substance use disorders, prevention, treatment, and recovery.
Telephone: 1-800-487-4889
Website: <https://www.samhsa.gov/find-help/national-helpline>
- *National Suicide Prevention Lifeline* provides 24/7, free and confidential support for people in distress, and prevention and crisis resources.
Telephone: 1-800-273-8255
Website: <http://suicidepreventionlifeline.org/>

Complaints

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Professor Roger Pickup
Associate Dean for Research
Tel: +44 (0)1524 593746
Email: r.pickup@lancaster.ac.uk
Faculty of Health and Medicine
(Division of Biomedical and Life Sciences)
Lancaster University
Lancaster
LA1 4YG

Appendix 4-5: Consent Form

Thank you for your interest in taking part in the study and for reading the information sheet. Before you begin the survey, please read each statement below and tick the box next to it if you agree. If you have any questions or queries before giving your consent to participate in the study, please email me at l.lewis2@lancaster.ac.uk. Thank you.

Please tick to agree

- | | |
|---|--------------------------|
| 1. I confirm that I have read the information sheet and fully understand what is expected of me within this study. | <input type="checkbox"/> |
| 2. I understand that I do not have to participate in the study, and that I am free to withdraw at any time without giving any reason. | <input type="checkbox"/> |
| 3. I understand that I will be asked to submit my data at the bottom of each page of the survey and that once I have submitted it I won't be able to withdraw it. It won't be possible for the researcher to identify which data are mine and so it will not be possible to withdraw it. | <input type="checkbox"/> |
| 4. I understand that my data will be anonymous and will not have my name or email address or other identifying information stored with them. | <input type="checkbox"/> |
| 5. I understand that my data will be pooled with other participants' data, anonymised and may be published. | <input type="checkbox"/> |
| 6. I understand that the researcher will discuss the anonymous pooled data with their supervisor as needed. | <input type="checkbox"/> |
| 7. I understand that if I contact the researcher directly (e.g. via email), any information I give will remain confidential and anonymous unless it is thought that there is a risk of harm to myself or others, in which case the investigator may need to share this information with others. | <input type="checkbox"/> |
| 8. I consent to Lancaster University keeping my data for 10 years after the study has finished. | <input type="checkbox"/> |
| 9. I understand that if I provide my email address to take part in the prize draw at the end of the survey, it will be kept confidential and will be stored separately to the anonymous data I provide in the survey. | <input type="checkbox"/> |
| 10. I consent to take part in the above study. | <input type="checkbox"/> |

Appendix 4-6: Survey

Demographics

Question	Response options
How old are you?	Less than 18 18 19 20 ... 100
How do you describe your gender?	Female Non-binary Male I prefer another description
Please select your country of nationality	Drop down list of countries
What is the highest level of education you have completed?	Primary school / junior school Secondary school / high school College Bachelor's degree / undergraduate degree Masters or other postgraduate degree Doctoral degree
Which statement best describes your current employment status?	Employed / self-employed Not working and looking for work Not working and not looking for work In full-time education Retired Prefer not to answer

Life Events Checklist-5

Listed below are a number of difficult or stressful things that sometimes happen to people. For each event check one or more of the boxes to the right to indicate that: (a) it happened to you personally; (b) you witnessed it happen to someone else; (c) you learned about it happening to a close family member or close friend; (d) you were exposed to it as part of your job (for example, paramedic, police, military, or other first responder); (e) you're not sure if it fits; or (f) it doesn't apply to you.

Be sure to consider your entire life (growing up as well as adulthood) as you go through the list of events.

Event	Happened to me	Witnessed it	Learned about it	Part of my job	Not sure	Doesn't apply	Prefer not to say
1. Natural disaster (for example, flood, hurricane, tornado, earthquake)							
2. Fire or explosion							
3. Transportation accident (for example, car accident, boat accident, train wreck, plane crash)							
4. Serious accident at work, home, or during recreational activity							
5. Exposure to toxic substance (for example, dangerous chemicals, radiation)							
6. Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)							
7. Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)							
8. Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)							
9. Other unwanted or uncomfortable sexual experience							
10. Combat or exposure to a war-zone (in the military or as a civilian)							
11. Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)							

12. Life-threatening illness or injury							
13. Severe human suffering							
14. Sudden violent death (for example, homicide, suicide)							
15. Sudden accidental death							
16. Serious injury, harm, or death you caused to someone else							
17. Any other very stressful event or experience							

Impact of Events Scale - Revised

Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you. During the past seven days, how much were you distressed or bothered by these difficulties? If you have experienced more than one traumatic event, please answer the questions in reference to the most traumatic event.

In the past month how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely	Prefer not to say
1. Any reminder brought back feelings about it						
2. I had trouble staying asleep						
3. Other things kept making me think about it						
4. I felt irritable and angry						
5. I avoided letting myself get upset when I thought about it or was reminded of it						
6. I thought about it when I didn't mean to						
7. I felt as if it hadn't happened or wasn't real						
8. I stayed away from reminders about it						
9. Pictures about it popped into my mind						
10. I was jumpy and easily startled						
11. I tried not to think about it						
12. I was aware that I still had a lot of feelings about it, but I didn't deal with them						
13. My feelings about it were kind of numb						
14. I found myself acting or feeling as though I was back at that time						
15. I had trouble falling asleep						
16. I had waves of strong feelings about it						
17. I tried to remove it from my memory						
18. I had trouble concentrating						
19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart						

20. I had dreams about it						
21. I felt watchful or on-guard						
22. I tried not to talk about it						

Disclosure of Trauma Questionnaire

Please indicate the extent to which you agree or disagree with each of the following statements. If you have experienced more than one traumatic event, please answer the questions in reference to the most traumatic event.

	I agree				Prefer not to say
	Not at all	Slightly	Mostly	Completely	
1. There are several people I have told the whole story to more than once.					
2. It is important for me to talk repeatedly about what happened and how it happened.					
3. The more often I talk about the event, the clearer it becomes to me.					
4. When I talk about my experiences, I try to imagine everything as it was.					
5. I often describe feelings of fear, shock, humiliation, or of feeling paralyzed.					
6. I think considerably more about the incident than I talk about it.					
7. If I tell my friends about the incident, I will only shock them.					
8. I must get the experience clear in my mind.					
9. I have not told anybody about the event.					
10. It is much more important to clarify my feelings about the situation than to describe the incident precisely.					
11. I feel like I need to talk about the event a lot.					
12. I only describe the things that happened using the same few words or phrases.					
13. My voice often fails when I describe my experiences in full.					
14. I often describe how helpless I felt in the situation.					
15. After I talk about the event, I always feel exhausted.					
16. Telling somebody about the incident would not be of any help to me.					
17. I find it difficult to talk to people about the incident.					
18. I never find the right time to talk about what I experienced during the event.					

19. The more I talk about the incident, the better I can express how I felt during the situation.					
20. I often leave out details when I describe the incident.					
21. I feel extremely tense when I describe the incident.					
22. After I have described everything about the incident, I feel relieved.					
23. I find it more comfortable not to talk about the incident.					
24. I do not want to burden my partner, family, or friends by telling them about the incident.					
25. I find it easy to talk about my experiences of the situation.					
26. I feel compelled to talk about my experiences of the situation again and again.					
27. I like to talk about the event as often as possible.					
28. My family/friends criticize me for only ever talking about the incident.					
29. It is difficult for me to speak about the incident in detail.					
30. Describing the event makes me feel very sad.					
31. When I describe the incident in detail, I feel like I am back in the event.					
32. When I describe the incident, my heart starts to pound, I start to sweat, or I start to shake.					
33. I often think about the event, but do not talk about it very much.					
34. I have not told anyone exactly what happened during the event.					

7. A friend tells you that you boast a great deal. What is the likelihood that you would stop spending time with that friend?								
8. Your home is very messy and unexpected guests knock on your door and invite themselves in. What is the likelihood that you would avoid the guests until they leave?								
9. You secretly commit a crime. What is the likelihood that you would feel remorse about breaking the law?								
10. You successfully exaggerate your damages in a lawsuit. Months later, your lies are discovered and you are charged with perjury. What is the likelihood that you would think you are a despicable human being?								
11. You strongly defend a point of view in a discussion, and though nobody was aware of it, you realize that you were wrong. What is the likelihood that this would make you think more carefully before you speak?								
12. You take office supplies home for personal use and are caught by your boss. What is the likelihood that this would lead you to quit your job?								
13. You make a mistake at work and find out a coworker is blamed for the error. Later, your coworker confronts you about your mistake. What is the likelihood that you would feel like a coward?								
14. At a coworker's housewarming party, you spill red wine on their new cream-colored carpet. You cover the stain with a chair so that nobody notices your mess. What is the likelihood that you would feel that the way you acted was pathetic?								
15. While discussing a heated subject with friends, you suddenly realize you are shouting though nobody seems to notice. What is the likelihood that you would try to act more considerately toward your friends?								
16. You lie to people but they never find out about it. What is the likelihood that you would feel terrible about the lies you told?								

Self-Disgust Scale-Revised

This questionnaire is concerned with how you feel about yourself. When responding to the statements below, please circle the appropriate number according to the following definitions: 1 = Strongly disagree; 2 = Very much disagree; 3 = Slightly disagree; 4 = Neither agree nor disagree; 5 = Slightly agree; 6 = Very much agree; 7 = Strongly agree.

	Strongly disagree				Strongly agree			Prefer not to say
1. I find myself repulsive	1	2	3	4	5	6	7	
2. I am proud of who I am	1	2	3	4	5	6	7	
3. I am sickened by the way I behave	1	2	3	4	5	6	7	
4. Sometimes I feel tired	1	2	3	4	5	6	7	
5. I can't stand being me	1	2	3	4	5	6	7	
6. I enjoy the company of others	1	2	3	4	5	6	7	
7. I am revolting for many reasons	1	2	3	4	5	6	7	
8. I consider myself attractive	1	2	3	4	5	6	7	
9. People avoid me	1	2	3	4	5	6	7	
10. I enjoy being outdoors	1	2	3	4	5	6	7	
11. I feel good about the way I behave	1	2	3	4	5	6	7	
12. I do not want to be seen	1	2	3	4	5	6	7	
13. I am a sociable person	1	2	3	4	5	6	7	
14. I often do things I find revolting	1	2	3	4	5	6	7	
15. I avoid looking at my reflection	1	2	3	4	5	6	7	
16. Sometimes I feel happy	1	2	3	4	5	6	7	
17. I am an optimistic person	1	2	3	4	5	6	7	
18. I behave as well as everyone else	1	2	3	4	5	6	7	
19. It bothers me to look at myself	1	2	3	4	5	6	7	
20. Sometimes I feel sad	1	2	3	4	5	6	7	
21. I find the way I look nauseating	1	2	3	4	5	6	7	
22. My behaviour repels people	1	2	3	4	5	6	7	

Appendix 4-7: Debrief Sheet

Thank you

Thank you for taking part in the study. Your input is really appreciated. The purpose of the study was to build understanding of how our attitudes about talking about trauma with other people impacts posttraumatic stress, and whether this relationship is affected by self-conscious emotions, such as shame, guilt and self-disgust. Talking about trauma can help people to process their traumatic experiences. If people don't feel able to talk about their traumatic experiences this may lead to greater posttraumatic stress. However, this might only be the case for people who want to talk about their trauma, but are held back from doing so by difficult self-conscious emotions. A common response to self-conscious emotions is to avoid thinking or talking about the things that trigger them, which might make us less likely to talk about our traumatic experiences. It is hoped that understanding these processes may help services to better support people who have experienced trauma. Thank you for contributing to this. If you would like to ask any questions about the study please email me at l.lewis2@lancaster.ac.uk.

Sources of support

If you experienced any distress while taking part in the study, you might wish to contact some of the following sources of support to help you to manage this. You may also wish to contact your local GP/family doctor or hospital emergency department.

UK resources:

- *Victim Support* provides specialist practical and emotional support to victims of crime.
Telephone: 08 08 16 89 111
Website: www.victimsupport.org.uk
- *Mind* provides information and advice to people experiencing mental health difficulties.
Telephone: 0300 123 3393
Email: info@mind.org.uk
Website: <https://www.mind.org.uk>
- *The Samaritans* is a 24-hour helpline for anyone in need. It is staffed by trained volunteers.
Telephone: 116 123
Email: jo@samaritans.org
Website: www.samaritans.org
- *The Survivors Trust* is an umbrella agency connecting 130 organisations across the UK offering support to survivors of sexual abuse.
Telephone: 0808 801 0818

Email: info@thesurvivorstrust.org
 Website: www.thesurvivorstrust.org

US resources:

- *National Helpline* Provides 24-hour free and confidential referrals and information about mental and/or substance use disorders, prevention, treatment, and recovery.
 Telephone: 1-800-487-4889
 Website: <https://www.samhsa.gov/find-help/national-helpline>
- *National Suicide Prevention Lifeline* provides 24/7, free and confidential support for people in distress, and prevention and crisis resources.
 Telephone: 1-800-273-8255
 Website: <http://suicidepreventionlifeline.org/>

Any questions or concerns?

If you have any questions or concerns about the study, please contact me or one of the other named contacts using the details below.

Main researcher

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Complaints

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Professor Catherine Walshe, Head of the Division of Health Research
 Telephone: +44 (0)1524 510124
 Email: c.walshe@lancaster.ac.uk
 Division of Health Research
 Lancaster University
 Lancaster
 LA1 4YG

If you wish to speak to someone outside of the Clinical Psychology Doctorate Programme, you may also contact:

Professor Roger Pickup
 Associate Dean for Research

Tel: +44 (0)1524 593746
Email: r.pickup@lancaster.ac.uk
Faculty of Health and Medicine
(Division of Biomedical and Life Sciences)
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Lancaster
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If you would like to enter the prize draw for a £50 Amazon voucher please click here:
[survey link].

Appendix 4-8: Email Opt In

Thank you for taking part in the study. You now have the option to enter the prize draw and/or opt in to receive updates on the findings of the study once it is complete. Please select below which of these, if any, you would like to opt in to.

[Tick box] I would like to enter the prize draw for a £50 Amazon voucher

[Tick box] I would like to receive updates on the findings of the study

If you have ticked either of the options above, please enter your email address below. This will only be used for the purpose(s) you have selected above. Your survey data will remain anonymous as the email address will be recorded and stored in a separate file.

[Text box for email address entry]