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Abstracts

Critical Review of the Literature

Objectives: To investigate whether trauma-focused therapies for PTSD effectively reduce non-fear emotions of depression, anger, guilt and shame compared to treatment as usual and other therapeutic interventions.

Methods: PsycINFO, Medline, Embase, PubMed, Cinahl, Scopus and Google Scholar were searched in April 2022. Included studies were RCT's, compared a trauma-focused therapy to a control or other therapeutic intervention in a sample of participants meeting criteria for PTSD, reported measures of shame, guilt, anger or depression, and were delivered individually face-to-face. The Cochrane risk of bias tool and GRADE framework were used to assess the quality of included studies and a pre-designed data extraction sheet was used.

Results: 73 studies were identified and a total of 70 RCTs comprising 5,199 participants were included in the meta-analyses; 70 examined depression, nine examined anger, five examined guilt, and three examined shame. Trauma-focused therapies significantly reduced depression compared to treatment as usual (g=-0.96, 95% CI, -1.12 to -0.80) and non-trauma-focused treatments (g=-0.29, 95% CI, -0.50 to -0.08); however, there were no significant differences for anger compared to treatment as usual (g=-0.22, 95% CI, -1.54 to 1.09) or non-trauma-focused treatments (g=0.01, 95% CI, -0.24 to 0.25). Few studies reported outcomes for guilt and shame, with findings showing no significant difference between prolonged exposure and other trauma-focused therapies for guilt (g=0.06, 95% CI, -0.21 to 0.32) and shame (g=-0.09, 95% CI, -0.62 to 0.44).

Discussion: Trauma-focused therapies appear to reduce depression in individuals with PTSD but may not be as effective for anger. The few studies that reported on anger, guilt and shame presented with a high risk of bias in several domains. Therefore, additional research is needed

to explore the impact of PTSD treatments on non-fear emotions and help determine which treatments work best for anger, guilt and shame.

Key Words: PTSD, Depression, Shame, Guilt, Anger, Therapy.

PROSPERO registration number: CRD42020200620.

Service Improvement Project

This service improvement project explored the information needs of service users (SU's) within a Birth Trauma Pathway in the Berkshire Traumatic Stress Service and developed a booklet based on recommendations. Routine service outcome and satisfaction data, a self-report questionnaire and semi-structured interviews with eight birth trauma SU's were used to gather feedback and suggestions for improvements. Overall, findings indicated that SU's were neither satisfied nor unsatisfied with the current information given. Interviews revealed the need for information on understanding birth trauma, learning about the treatment pathway, normalising birth trauma and overcoming barriers to help-seeking, coping strategies, and the aesthetics and practicalities of delivering the information. Subsequently, an information booklet for the Birth Trauma Pathway was designed in collaboration with four birth trauma SU's. After an 18-month pilot, pre and post data will later be compared to determine differences in SU satisfaction, drop-out and non-attendance rates after introducing the booklet.

Key Words: Birth, Trauma, PTSD, postnatal, mental health

Theoretically Driven Research Project

The aim of this study was to explore the role of current appraisals of mental defeat in interpersonal versus non-interpersonal traumas. A cross-sectional design was employed, where 164 participants, 104 with interpersonal and 60 with non-interpersonal traumas completed measures on type of traumas, PTSD severity and appraisals of mental defeat. The main findings revealed that having experienced interpersonal traumas was associated with significantly higher scores of mental defeat than having experienced non-interpersonal traumas when accounting for sex, number of trauma types and time since trauma. Secondary analyses revealed that interpersonal traumas were associated with more severe PTSD symptoms compared to non-interpersonal traumas via mental defeat as a mediator. Overall, current appraisals of mental defeat appear to play an important role in PTSD, particularly following interpersonal traumas. However, additional research is needed to explore the mechanisms by which cumulative trauma exposure increases PTSD severity.

Key Words: PTSD, trauma, mental defeat, interpersonal, non-interpersonal

Critical Review of the Literature

The Effect of Trauma-Focused Interventions for Posttraumatic Stress Disorder on Non-Fear-Based Emotions: A Systematic Review and Meta-Analysis

May 2022

Internal Supervisor: Professor Craig Steel

For submission to Clinical Psychology Review

Word count: 7,204 (excluding figures, tables, references and appendix)

Abstract

Objectives: To investigate whether trauma-focused therapies for PTSD effectively reduce non-fear emotions of depression, anger, guilt and shame compared to treatment as usual and other therapeutic interventions.

Methods: PsycINFO, Medline, Embase, PubMed, Cinahl, Scopus and Google Scholar were searched in April 2022. Included studies were RCT's, compared a trauma-focused therapy to a control or other therapeutic intervention in a sample of participants meeting criteria for PTSD, reported measures of shame, guilt, anger or depression, and were delivered individually face-to-face. The Cochrane risk of bias tool and GRADE framework were used to assess the quality of included studies and a pre-designed data extraction sheet was used.

Results: 73 studies were identified and a total of 70 RCTs comprising 5,199 participants were included in the meta-analyses; 70 examined depression, nine examined anger, five examined guilt, and three examined shame. Trauma-focused therapies significantly reduced depression compared to treatment as usual (g=-0.96, 95% CI, -1.12 to -0.80) and non-trauma-focused treatments (g=-0.29, 95% CI, -0.50 to -0.08); however, there were no significant differences for anger compared to treatment as usual (g=-0.22, 95% CI, -1.54 to 1.09) or non-trauma-focused treatments (g=0.01, 95% CI, -0.24 to 0.25). Few studies reported outcomes for guilt and shame, with findings showing no significant difference between prolonged exposure and other trauma-focused therapies for guilt (g=0.06, 95% CI, -0.21 to 0.32) and shame (g=-0.09, 95% CI, -0.62 to 0.44).

Discussion: Trauma-focused therapies appear to reduce depression in individuals with PTSD but may not be as effective for anger. The few studies that reported on anger, guilt and shame presented with a high risk of bias in several domains. Therefore, additional research is needed

to explore the impact of PTSD treatments on non-fear emotions and help determine which treatments work best for anger, guilt and shame.

Key Words: PTSD, Depression, Shame, Guilt, Anger, Therapy.

PROSPERO registration number: CRD42020200620.

Highlights

- Trauma-focused therapies effectively reduced symptoms of depression compared to treatment as usual and non-trauma-focused therapies.
- There was no significant difference between different types of trauma-focused therapies for depression.
- Trauma-focused therapies did not have a significant effect on anger compared to treatment as usual and non-trauma-focused therapies.
- There was no difference between prolonged exposure and other trauma-focused therapies for anger, shame or guilt.
- Few RCTs have examined outcomes for anger, shame or guilt and future research is needed in this area to help guide treatment selection.

Introduction

Post-traumatic Stress Disorder (PTSD)

It is estimated that 1.3 to 8.8% of the general population experience PTSD over their lifetime (Atwoli et al., 2015). As per the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), for a diagnosis of PTSD, an individual must have experienced a traumatic event followed by symptoms of re-experiencing, hyperarousal, avoidance of reminders of the event, and negative alterations of mood and cognition which cause a significant impairment to daily functioning (American Psychiatric Association, 2013). PTSD has been associated with high rates of physical health problems, comorbid mental health difficulties, increased suicide attempts and a high economic burden on health and social services (Davidson et al., 1991; Ferry et al., 2015; McCrone et al., 2003). Consequently, increased attention has been given in both research and clinical practice to understanding the development and maintenance of PTSD and formulating treatment options.

PTSD was initially conceptualised as an anxiety disorder underpinned by fear-based emotions (Foa & Kozak, 1986), with previous versions of the DSM requiring individuals to have experienced "intense fear, helplessness or horror" at the time of the event (American Psychiatric Association, 2000). Researchers theorised that PTSD symptoms arose from an association between traumatic stimuli and fear responses (Chemtob et al., 1988; Foa & Kozak, 1986; Lang, 1979). The emotional processing theory of PTSD suggests that the fear experienced during a traumatic event interrupts natural processing and leads to the formation of a memory representation which is stored in a 'fear network' and activated by stimuli associated with the event (Foa, 1993; Foa & Kozak, 1986; Foa & Rothbaum, 2001). Treatment based on this model attempts to habituate anxiety and change the association

between the stimulus and response through prolonged imaginal exposure therapy (Foa & Rothbaum, 2001).

In recent years, PTSD has been re-conceptualised as a disorder of memory, encompassing a range of emotional responses. Theoretical frameworks suggest that a range of non-fear emotions can also develop as a result of how the individual appraises the event, their responses and its consequences (Ehlers & Clark, 2000; Resick & Schnicke, 1993; Resick & Schnicke, 1992). The cognitive model of PTSD proposes that high levels of arousal experienced during the trauma lead to poor cognitive processing and result in an insufficiently elaborated memory of the event (Ehlers & Clark, 2000). The nature of this memory, accompanied with the individual's appraisals, can lead to non-fear emotions, which pose an internal threat to one's identity and self-concept (Lee et al., 2001; Taylor, 2015). While fear-based emotions in PTSD are often perceived to be primary as a direct response to the trauma, research suggests that non-fear emotions can be either primary or secondary (Brewin, 2001; Grey et al., 2001). Secondary emotions arise as a result of the way individuals' appraise the consequences of the event or its effect on them, for example, individuals may experience anger or depression in relation to suffering from re-experiencing symptoms or avoidance. As a result of the perceived threat posed by PTSD symptoms and emotional responses, individuals may develop maladaptive coping strategies (such as rumination or avoidance), which prevent the memory from being updated and maintain the negative cognitions and emotions (Ehlers & Clark, 2000).

In recognition of the broader impact of trauma on emotional processing, DSM-5 includes updated Criterion D for alterations to mood and cognition to specify depression, shame, guilt and anger as common reactions in PTSD (American Psychiatric Association, 2013). Research has consistently highlighted these four non-fear emotions as being highly prevalent within PTSD, with findings showing that they can lead to more severe PTSD

symptoms and poorer treatment outcomes (Afzali et al., 2017; Amstadter & Vernon, 2008; Ehlers et al., 1998; Grey et al., 2001; Hathaway et al., 2010; Kunst et al., 2011; Lancaster & Larsen, 2016; Lancaster et al., 2011; Ozer et al., 2003).

Non-Fear Emotions

While prolonged exposure therapy has been shown to be highly effective in numerous trials, the question remains why 30-50% of individuals still present with symptoms of PTSD following treatment (Bradley et al., 2005). Several theories have suggested that when non-fear emotions are central to the presentation, exposure can either fail to target these or can exacerbate these emotions further (Grey et al., 2001; Lee et al., 2001; Pitman et al., 1996; Smucker et al., 2003). Consequently, it has been suggested that alternate interventions may be needed to target shame, guilt, anger or depression.

While initially researched in relation to sexual assault and abuse victims, shame has been illustrated as a common reaction across various trauma populations (Jaycox et al., 1997; López-Castro et al., 2019; Saraiya & Lopez-Castro, 2016). Shame is linked to self-blame cognitions and is defined as the view that others hold negative opinions of you, and you believe these views are fundamentally true (Lee, 2009; Lewis, 1971; Tracy & Robins, 2004). As shame is suggested to be processed and stored differently from other emotions, this could explain why cognitive therapy techniques and repeated exposure may have less effect on shifting shame, with clinicians reporting reaching a stuck point (Lee, 2009).

Whereas shame encapsulates a negative view of oneself, guilt is defined as an emotion driven by negative appraisals of one's behaviour or responses (Lewis, 1971). In contrast to shame being a deeply held belief about oneself, guilt is usually in response to a particular situation, for example, individuals may appraise that an event was their fault or feel guilty in response to how they managed the aftermath (Lee et al., 2001). Guilt has been

shown to have a significant impact on an individual's functioning and has been linked to more severe PTSD symptoms, with high levels of distress shown to moderate this effect (Browne et al., 2015; Pugh et al., 2015). Whereas treatment mechanisms often target the memory to aid with the processing of the event, guilt has been shown to impede the emotional processing of the trauma resulting in individuals not reaching habituation in exposure-based therapy and thus going untreated (Brewin et al., 1996; Ehlers & Steil, 1995; Grunnert et al., 2003; Kubany & Manke, 1995; Lee et al., 2001).

Anger is another non-fear emotion believed to lead to poor treatment outcomes in individuals with PTSD. Theories suggest that anger inhibits emotional engagement and the activation of the fear network required to reduce re-experiencing in exposure therapy (Foa & Kozak, 1986; Foa et al., 1995; Jaycox & Foa, 1996). Research suggests individuals who experience high levels of anger alongside PTSD are also more likely to drop out of treatment (Stevenson & Chemtob, 2000). Given that anger is shown to increase with time and is linked to increased PTSD symptoms, it is unsurprising that rates of risk-taking, alcohol misuse, aggression towards others, self-harm and suicide are higher in individuals who experience anger alongside PTSD (Dyer et al., 2009; Elbogen et al., 2010; Hellmuth et al., 2012; Orth & Wieland, 2006).

Depression has been consistently linked to PTSD across studies, with 47.9% of those diagnosed with PTSD meeting the criteria for a major depressive episode compared to just 11.7% of individuals without PTSD (Kessler et al., 1995). Depression has been shown to increase the risk of suicidal behaviours in individuals with PTSD and lead to greater mortality rates (Gradus et al., 2010; Panagioti et al., 2012b; Tarrier & Gregg, 2004). A meta-analysis found that treatments for PTSD appeared to reduce comorbid depression; however, this study explored any treatment for PTSD and did not focus on trauma-focused therapies where

exposure is a crucial component (Ronconi et al., 2015). As a result, further research is needed to explore the effect of trauma-focused therapies on non-fear emotions.

Trauma-Focused Treatments

Stemming from early theories of PTSD, many trauma-focused treatments use imaginal exposure to alleviate fear-based emotions. Trauma-focused therapies are the front-line treatment recommended by the National Institute of Health and Care Excellence (NICE) guidelines. Trauma-focused therapies include Prolonged Exposure therapy (PE) (Foa & Rothbaum, 2001), Cognitive Processing Therapy (CPT; (Resick & Schnicke, 1993), Cognitive Therapy for PTSD (CT-PTSD; (Ehlers & Clark, 2000), Narrative Exposure Therapy (NET; (Schauer et al., 2011)), Eye Movement Desensitisation and Reprocessing (EMDR; (Shapiro, 2017)), and Trauma-Focused Cognitive Behavioural Therapy (TF-CBT) as a general approach. While evidence has shown that trauma-focused therapies are highly effective in reducing PTSD symptoms (Ehring et al., 2014; Kornør et al., 2008; Lenz, Haktanir, & Callender, 2017; Seidler & Wagner, 2006), the evidence for their effect on non-fear emotions remains unclear.

There are several mechanisms by which trauma-focused therapies may improve non-fear emotions. First, imaginal reliving elaborates and contextualises the trauma memory which may introduce new or corrective information which challenges some of the appraisals underlying the non-fear-based emotions (Ehlers & Clark, 2000; Foa & Kozak, 1986; Rothbaum & Schwartz, 2002). Second, many trauma-focused therapies use cognitive and behavioural techniques which may directly change the individual's appraisals of the trauma or its consequences which are linked to these emotions (Ehlers & Clark, 2000; Resick & Schnicke, 1993). For example, introducing techniques to manage rumination, or exposure to avoided situations may lead to individuals experiencing fewer negative appraisals about

themselves, the world, or others, and consequently symptoms of depression, guilt, anger or shame reduce. Third, secondary non-fear emotions may alleviate once PTSD symptoms reduce, for example, once re-experiencing and avoidance improves, mood may also improve (Breslau et al., 2000; Brewin, 2001; Rosen et al., 2020).

Nevertheless, there is debate whether exposure therapy alone effectively reduces non-fear emotions or whether additional interventions are needed. One concern is that exposure does not directly address the cognitive appraisals or underlying emotions, and so individuals may not respond, or it may even worsen feelings of anger, shame, guilt or sadness (Lee et al., 2001; Pitman et al., 1991; Pitman et al., 1996; Smucker et al., 2003; Stapleton et al., 2006). Some studies suggest that exposure without cognitive restructuring may be less effective, whereas others show no difference between exposure treatments with or without restructuring (Foa & Rauch, 2004; Grey et al., 2002). Additionally, in a study of veterans with high levels of shame, guilt and anger, individuals did not respond to prolonged exposure therapy alone but improved when imagery rescripting was incorporated (Grunert et al., 2007). On the other hand, several studies have demonstrated a reduction in anger, guilt, shame and depression from standard trauma-focused treatments or shown that they have no impact on treatment outcomes for PTSD (Allard et al., 2018; Clifton et al., 2017; Van Minnen et al., 2002). While findings appear inconsistent, it remains that the theoretical mechanisms underpinning the different types of trauma-focused therapies vary, and some incorporate additional elements (e.g. cognitive restructuring). Therefore, a synthesis of the evidence is needed to determine whether trauma-focused treatments reduce non-fear emotions, to what extent, and which treatments are most effective for which emotions.

Aims & Hypotheses

An abundance of research has explored the effect of trauma-focused treatments on PTSD alone but far less has examined non-fear emotions. Previous meta-analyses have looked at PTSD outcomes only, or depression and anxiety in specific population groups, limited treatment types or comparators, any form of therapeutic intervention, or have pooled various study types (Bisson et al., 2007; Ehring et al., 2014; Kornør et al., 2008; Ronconi et al., 2015; Seidler & Wagner, 2006). Further, previous analyses are limited by a small number of pooled studies. Given the impact of non-fear emotions on PTSD severity, treatment outcomes and quality of life, determining what effect trauma-focused treatments have on these emotions, and which lead to greater reductions in symptoms has high clinical importance. This research could help inform whether adaptations are needed to target these emotions and determine the most effective treatments for different emotions. To our knowledge, no meta-analysis has yet explored the impact of trauma-focused therapies on non-fear emotions.

Consequently, this study aims to produce a systematic review and meta-analysis of trauma-focused treatments on shame, guilt, anger and depression compared to treatment as usual or other intervention types. As the gold standard for research, the study will be limited to randomised controlled trials (RCTs). It is hypothesised that trauma-focused treatments will have a small but not significant effect on non-fear emotions compared to treatment as usual or other treatments. Given that treatments incorporate different elements and mechanisms, it is also hypothesised that this effect will vary by type of trauma-focused treatment as explored by subgroup analyses.

Methods

This study followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting guidelines (Moher et al., 2009). See Appendix A for the PRISMA checklist. This review was registered with PROSPERO [CRD42020200620].

Search Strategy

A systematic review was conducted using seven electronic databases; PsycINFO, Medline, Embase, PubMed, Cinahl, Scopus and Google Scholar (See Appendix B for full search terms). A preliminary search was conducted in May 2021 and updated in April 2022. First, the identified studies were extracted into Rayyan software for screening (Ouzzani et al., 2016). Duplicates were removed, and then the titles and abstracts of the remaining studies were screened using the inclusion criteria by two independent reviewers (RA and SS). Cohen's kappa statistic, which measures inter-rater reliability, was used to ascertain the scoring agreement ($\kappa = 0.65$). Any discrepancies (n=94) were discussed and resolved. The remaining studies underwent full-text screening. Where insufficient data was provided for analysis, the study authors were contacted.

Inclusion Criteria

The inclusion criteria were (1) randomised trials comparing a trauma-focused therapy to at least one control condition or other active treatment condition, (2) treatment comprised of a trauma-focused therapy as recommended by NICE guidelines, including; CT-PTSD, CPT, NET, TF-CBT or EMDR, (3) study participants were above 18 years of age, (4) treatment was delivered individually face-to-face, (5) the sample had a confirmed diagnosis of PTSD or met criteria for PTSD above cut-off on a validated measure, (6) it recorded outcomes for depression, shame, guilt or anger post-intervention, (7) was published in a peer-reviewed journal, (8) was written in English, and (9) published after 1989 in keeping with when the first manualised intervention (PE) for PTSD was designed. Exclusion criteria were

(1) sample under the age of 18, (2) the intervention combined different treatments or modified the treatment, (3) the intervention was delivered in a group, (4) the intervention was delivered via telemedicine, (5) the comparator group was an adaptation of the intervention group treatment, (6) the comparator was medicinal.

Data Extraction

Data extraction was completed by the first author (RA) and checked by the second author (SS). Discrepancies were resolved through discussion. For each study that met inclusion criteria, the following information was extracted into a standardised spreadsheet: first author and year of publication, country, population characteristics (age, percentage of females, percentage of white participants, types of trauma, number of traumas, months since trauma), the measure used to check for PTSD, intervention characteristics (type of intervention, comparison group, number of sessions), outcome measures for depression, anger, guilt and shame (sample size, mean, standard deviation, effect size, the measure used) at post-test.

If studies used different measures for the same outcomes, the most frequently used measure was chosen to reduce between-study heterogeneity (Borenstein et al., 2021). Where available, intention-to-treat outcomes were selected to minimise the impact of attrition bias. For measures of anger, scores were averaged across anger subscales, as several studies did not report an overall score, and there were variations in which subscales were used, so a common measure could not be selected (Borenstein et al., 2021). Finally, where studies compared multiple trauma-focused therapies to controls, the treatment that had the most participants across all studies was chosen.

Quality Assessments

The methodological quality of each study was assessed using the Cochrane Collaboration's 'Risk of bias tool' (Higgins & Altman, 2008), which encompasses the following domains: generation of sequences for random allocation; concealment of treatment condition; blinding of participants and personnel; blinding of assessors; incomplete outcome data; selective reporting of outcomes and other potential sources of bias. Each item was rated by two independent reviewers (RA and SS) as low, high or unclear bias. The intraclass correlation coefficient was used to ascertain inter-rater reliability; 0.79 (95% CI: 0.76-0.85). Discrepancies were resolved through discussion. The certainty of the evidence for all outcomes was assessed using the Grading of Recommendations, Assessment, Development and Evaluations (GRADE) framework. See supplementary table 1 (Appendix C).

Coding of Treatment Characteristics

Where intervention type was specified, studies were grouped into CPT, CT-PTSD, PE, EMDR and NET. Where this was not specified, but treatments used common TF-CBT techniques, including psychoeducation, exposure therapy and cognitive restructuring, they were grouped into a separate category named 'TF-CBT'. Given that a range of control treatments were utilised across studies, the three authors (RA, SS and CS) jointly coded the treatments into comparator groups of (1) treatment as usual (TAU), (2) non-trauma-focused therapies, or (3) other trauma-focused therapies. In line with previous reviews, control interventions were defined as trauma-focused when they addressed the memory or meaning of the traumatic event (Bisson et al., 2007; Ehring et al., 2014). Where studies had two control groups from the same category, the treatment that was most similar to others pooled in the analysis was selected to reduce between-study heterogeneity.

Data Analysis

For each emotion outcome, treatment effect sizes were pooled when there were three or more studies available for the same comparator group (i.e. TAU) using random-effects meta-analyses due to the inherent heterogeneity between sample and treatment characteristics across studies (Higgins & Thompson, 2002). The DerSimonian-Laird estimator was used to estimate between-study variance. The standardised mean difference (SMD) was used as the common effect size where studies reported means and standard deviations (SDs), as recommended by Cochrane (handbook 12.6.1). If means and SDs were not reported, other reported measures were used to convert the effect size into Hedges *g* (Cochrane handbook 6). The SMDs were expressed as Hedges *g* providing a bias-corrected estimate for smaller sample sizes. Consistent with guidance, effects sizes of 0.2, 0.5 and 0.8 were interpreted as small, medium and large, respectively (Cohen, 2013). For studies reporting on shame and guilt, the change from baseline was used with imputed SDs (Cochrane handbook 16.1.3.2) for SMD, as several studies showed imbalanced baseline values despite randomisation. Finally, the Hartung-Knapp adjustment for random-effects meta-analyses was performed when only three studies were available, providing a more conservative measure when pooling smaller sample sizes (Hartung & Knapp, 2001a, 2001b, 2003).

Subgroup Analyses

To provide treatment effects by different characteristics and explore sources of between-study heterogeneity, subgroup analyses were conducted according to intervention type (CPT, CT-PTSD, PE, EMDR, NET and TF-CBT) and trauma type (accident/injuries, war and torture, military/service personnel, interpersonal trauma (where more than 50% of the sample had experienced interpersonal traumas), and mixed) where more than three studies were available for each compared subgroup (see Cochrane handbook 9.6.5.1).

Meta-regressions were conducted to explore the impact of age, publication year and proportion of females where more than ten studies were available (see Cochrane handbook 9.6.4). Publication bias was assessed using visual inspection of funnel plots and Egger's test when at least ten studies were available (Borenstein et al., 2021; Egger et al., 1997; Higgins et al., 2003). R studio (version 4.2) with the "meta" package and "compute.es" package was used to complete all analyses (Del Re, 2013; Schwarzer, 2007; Team R Core, 2013).

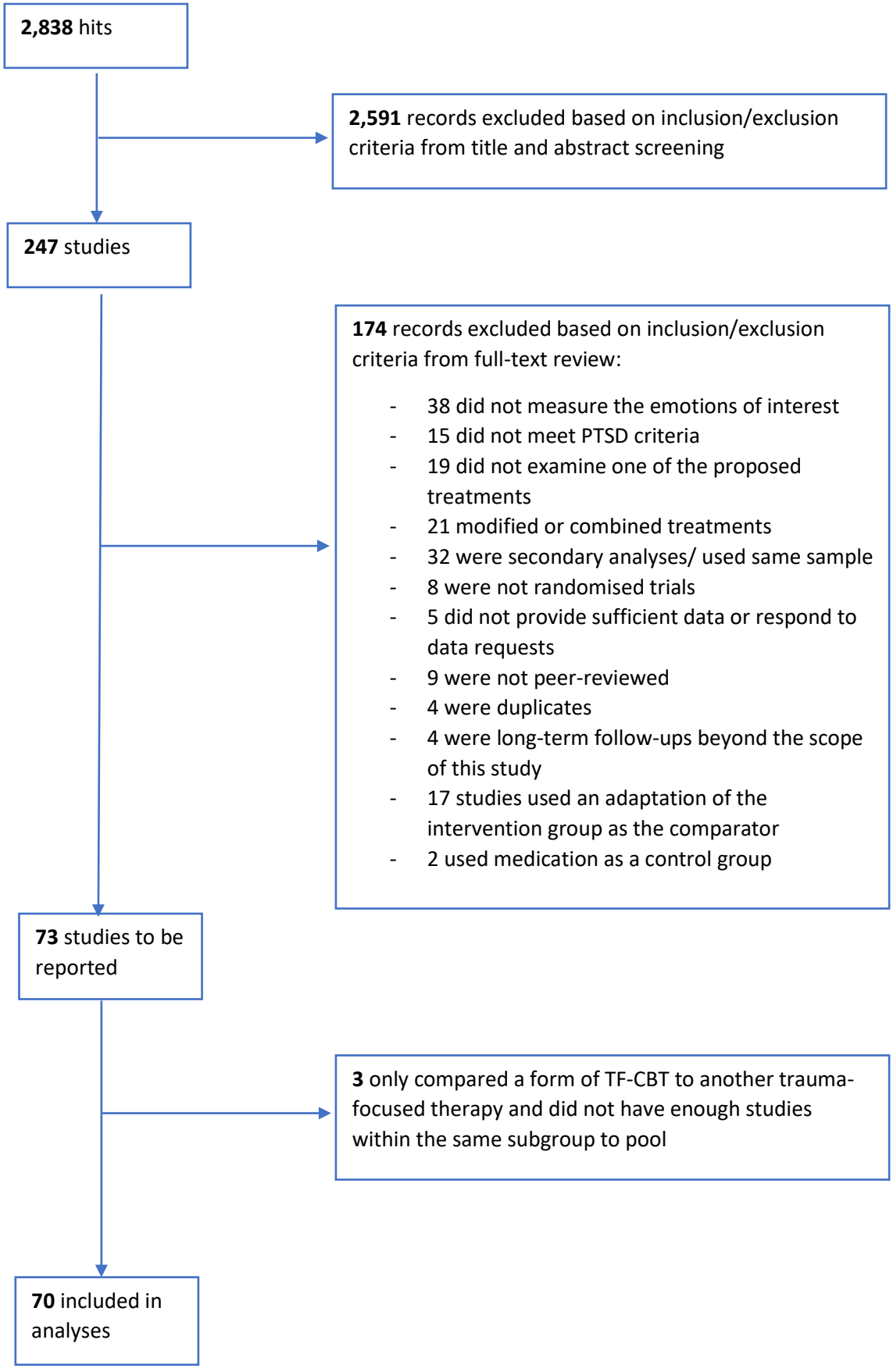
Results

Study Selection

Figure 1 shows the PRISMA flowchart of the identification and selection of studies for this review. 2,838 studies underwent title and abstract screening, leaving 247 for full-text review. In total, 73 studies comprising 5,199 participants have been included in this systemic review and 70 were included in meta-analyses.

Figure 1.

PRISMA flow chart: Identification and selection of studies



Study Characteristics

70 RCT's exploring non-fear emotions were included in the analyses. All 70 examined depression, with 40 comparing a trauma-focused therapy to TAU, 21 comparing to a non-trauma-focused therapy, twelve comparing PE to other trauma-focused therapies, and seven comparing EMDR to other trauma-focused therapies. Three additional studies compared different trauma therapies to each other, but there were less than three comparing the same treatment, so they could not be analysed (Bohus et al., 2020; Hensel-Dittmann et al., 2011; Litz et al., 2021). There were nine RCTs reporting measures of anger, three comparing a trauma-focused therapy to TAU, three comparing to a non-trauma-focused treatment, and five comparing PE to other trauma-focused treatments. For guilt, there were six studies in total; five compared PE to another form of trauma-focused therapy and were included in the analysis. One additional study compared CPT to a wait-list control, but there were no similar studies to pool, and another only reported guilt measures at follow-up, so both were excluded from the guilt analysis (Covers et al., 2021; Monson et al., 2006). Finally, three studies reported outcomes for shame, and all compared PE to another trauma-focused therapy and were analysed. One study only reported shame measures at follow-up so was excluded (Covers et al., 2021). Full study characteristics are shown in Table 1.

The majority of the studies examined PE (n=31), followed by EMDR (n=22), TF-CBT (n=9), NET (n=9), CPT (n=6), and CT-PTSD (n=4). The most commonly reported trauma type across studies was mixed (n=19), followed by interpersonal traumas (n=19), military or service personnel (n=14), accident or injury (n=12), and war and torture (n=9). Study participants ranged in mean age from 24 to 71.28 years, with a mean of 40.19 across studies. Studies also ranged in the percentage of females with a mean of 56.24%. The majority of studies were conducted in the USA (n=25), followed by the UK (n=9), Australia (n=7), The Netherlands (n=7), Germany (n=6), Sweden (n=2), Norway (n=2), Turkey (n=2),

France (n=2), Canada (n=2), China (n=2), Saudi Arabia (n=1), Brazil (n=1), Japan (n=1), Italy (n=1), Israel (n=1), Indonesia (n=1).

Table 1.

Characteristics of included studies

Study	Treatment conditions	Total sample size	Depression measure	Anger measure	Guilt measure	Shame measure	Mean age	Females (%)	Trauma type	Country
(Acartürk et al., 2015)	EMDR, W/L	29	BDI-II	-	-	-	36.55	75.86	War/ Torture	Turkey
(Acartürk et al., 2016)	EMDR, W/L	70	BDI-II	-	-	-	33.66	74	War/ Torture	Turkey
(Adenauer et al., 2011)	NET, W/L	19	HDRS	-	-	-	30.71	36.84	War/ Torture	Germany
(Alghamdi et al., 2015)	NET, W/L	34	HADS-D	-	-	-	30.4	0	Military / Service	Saudi Arabia
(Andersen et al., 2021)	TF-CBT, Supportive therapy	89	DASS	-	-	-	42.18	72.82	Accident / injuries	Australia, Denmark
(Arntz et al., 2007)	PE, Imagery rescripting	67	-	AEX	Rating scale	Rating scale	24	65.67	Interpersonal	Netherlands
(Asukai et al., 2010)	PE, TAU	24	CES-D	-	-	-	29.25	87.5	Accident / injuries	Japan
(Beidel et al., 2011)	PE, Trauma management therapy	30	HAM-D	Rating scale	-	-	59.37	0	Military / Service	USA
(Bohus et al., 2020)	CPT, DBT-PTSD	193	BDI-II	-	-	-	36.3	100	Interpersonal	Germany
(Bryant et al., 2003)	PE, Supportive counselling	38	BDI	-	-	-	36.69	51.72	Mixed	Australia
(Bryant et al., 2019)	PE, W/L	67	BDI	-	-	-	44.04	23	Military / Service	Australia
(Carletto et al., 2016)	EMDR, Relaxation	42	HADS-D	-	-	-	40.12	81.35	Accident / injuries	Italy
(Carlson et al., 1998)	EMDR, Relaxation, TAU	35	BDI	-	-	-	48.04	0	Military / Service	Hawaii
(Cottraux et al., 2008)	TF-CBT, Rogerian supportive therapy	42	BDI short	-	-	-	39	70	Mixed	France

(Covers et al., 2021)	EMDR, TAU	41	BDI-II	-	-	-	25.81	n/a	Interpersonal	The Netherlands
(de Bont et al., 2016)	PE, EMDR, W/L	130	BDI-II	-	-	-	41.2	54.19	Interpersonal	The Netherlands
(Devilly & Spence, 1999)	EMDR, TF-CBT	23	BDI	-	-	-	37.96	65.22	Mixed	Australia
(Duffy et al., 2007)	CT-PTSD, W/L	58	BDI	-	-	-	43.9	39.66	Mixed	Northern Ireland
(Dunne et al., 2012)	TF-CBT, W/L	26	DASS	-	-	-	32.54	50	Accident / injuries	Australia
(Duran et al., 2020)	PE, Cognitive therapy	75	BDI-II	-	-	-	41.7	78	Mixed	Brazil
(Efendi et al., 2020)	TF-CBT, W/L	90	GDS-15	-	-	-	71.28	74.44	Accident / injuries	Indonesia
(Ehlers et al., 2003)	CT-PTSD, Self-help booklet, repeated assessments	80	BDI	-	-	-	39.4	n/a	Accident / injuries	UK
(Ehlers et al., 2005)	CT-PTSD, W/L	28	BDI	-	-	-	36.6	53.57	Accident / injuries	UK
(Ehlers et al., 2014)	CT-PTSD, Supportive therapy, W/L	91	BDI	-	-	-	38.73	58.24	Mixed	UK
(Fecteau & Nicki, 1999)	TF-CBT, W/L	20	BDI	-	-	-	41.3	70	Accident / injuries	Canada
(Feske, 2008)	PE, TAU	21	BDI	AEI	-	-	43.1	100	Interpersonal	USA
(Foa et al., 1991)	PE, Supportive counselling, W/L	45	BDI	-	-	-	31.8	100	Interpersonal	USA
(Foa et al., 1999)	PE, SIT, W/L	56	BDI	-	-	-	34.9	100	Interpersonal	USA
(Foa et al., 2005)	PE, W/L	101	BDI	-	-	-	31.3	100	Interpersonal	USA
(D. Forbes et al., 2012)	CPT, TAU	58	BDI-II	DAR-7			53.37	3.39	Military / Service	Australia
(Ford et al., 2018)	PE, TARGET	31	-	STAXI	-	-	36.5	0	Military / Service	USA
(Ghafoori et al., 2017)	PE, Person centred therapy	71	BSI	-	-	-	35.2	83.1	Mixed	USA
(Hensel-Dittman	NET, SIT	20	HAM-D	-	-	-	n/a	n/a	War/ Torture	Germany

n et al., 2011)										
(Högberg et al., 2007)	EMDR, W/L	21	HAM-D	-	-	-	43	20.83	Accident / injuries	Sweden
(Ironson et al., 2002)	PE, EMDR	19	BDI	-	-	-	n/a	77.27	Mixed	USA
(Karatzias et al., 2011)	EMDR, Emotional freedom techniques	46	GDS-LD	-	-	-	40.6	56.52	Mixed	Scotland
(Karatzias et al., 2019)	EMDR, TAU	29	HADS-D	-	-	-	42.1	62	Mixed	UK
(Langkaas et al., 2017)	PE, Imagery rescripting	65	BDI-II	AEX	TRGI	TRSI	45.2	58	Mixed	Norway
(Lely et al., 2022)	NET, present-centred therapy	33	BDI-II	-	-	-	63.81	25	Interpersonal	The Netherlands
(Litz et al., 2021)	CPT, Adaptive disclosure	70	PHQ-9	-	-	-	29.8	8.3	Military / Service	USA
(Marcus et al., 1997)	EMDR, TAU	66	BDI	-	-	-	40.98	79	Mixed	USA
(Markowitz et al., 2015)	PE, IPT, Relaxation	86	HAM-D	-	-	-	40.1	70	Mixed	USA
(McDonagh et al., 2005)	TF-CBT, Person centred therapy, W/L	74	BDI	STAXI	-	-	40.42	100	Interpersonal	USA
(Monson et al., 2006)	CPT, W/L	60	BDI	-	TRGI	-	54	10	Military / Service	USA
(Morath et al., 2014)	NET, W/L	34	HAM-D	-	-	-	28	41.18	War/ Torture	Germany
(Nacasch et al., 2011)	PE, TAU	30	BDI	-	-	-	34.25	n/a	Military / Service	Israel
(Neuner et al., 2010)	NET, TAU	32	HSC-25	-	-	-	31.35	15.63	War/ Torture	Germany
(Nidich et al., 2018)	PE, Meditation, Health education	202	PHQ-9	-	-	-	47.04	16.83	Military / Service	USA
(Nijdam et al., 2012)	EMDR, Brief eclectic psychotherapy	90	HADS-D	-	-	-	37.83	56.43	Mixed	Netherlands
(Øktedalen et al., 2015)	PE, Imagery rescripting	58	-	-	TRGI	TRSI	45.18	57	Interpersonal	Norway

(Pacella et al., 2012)	PE, Weekly monitoring	47	CES-D	-	-	-	46.37	36.92	Accident / injuries	USA
(Paunovic & Ost, 2001)	PE, TF-CBT	20	BDI	-	-	-	37.9	15	War/ Torture	Sweden
(Perez-Dandieu & Tapia, 2014)	EMDR, TAU	12	BDI	-	-	-	29.67	100	Interpersonal	France
(Power et al., 2002)	EMDR, W/L	51	HADS-D	-	-	-	39.24	41.67	Mixed	Scotland
(Reger et al., 2016)	PE, VRET, W/L	108	BDI-II	-	-	-	30.3	3.7	Military / Service	USA
(Resick et al., 2002)	PE, CPT, W/L	169	BDI	-	TRGI	-	32	100	Interpersonal	USA
(Rothbaum, 1997)	EMDR, W/L	18	BDI	-	-	-	34.22	100	Interpersonal	USA
(Rothbaum et al., 2005)	PE, EMDR, W/L	60	BDI	-	-	-	33.8	100	Interpersonal	USA
(Schnurr et al., 2007)	PE, Present centred therapy	284	BDI	-	-	-	44.75	100	Military / Service	USA
(Schnurr et al., 2022)	PE, CPT	916	BDI-II	STAXI	-	-	45.2	20.3	Military / Service	USA
(Sijbrandij et al., 2007)	TF-CBT, W/L	114	HADS-D	-	-	-	37.64	60.14	Interpersonal	Netherlands
(Stanbury et al., 2020)	PE, EMDR	20	DASS	-	-	-	42.15	n/a	Mixed	Australia
(Steuwe et al., 2021)	NET, DBT	58	BDI-II	-	-	-	46.46	100	Interpersonal	Germany
(Surís et al., 2013)	CPT, Present centred therapy	86	QIDS	-	-	-	46.1	85	Interpersonal	USA
(Tarrier et al., 1999)	PE, Cognitive therapy	62	BDI	-	-	-	38.6	42	Mixed	England
(Taylor et al., 2003)	PE, EMDR, Relaxation	52	BDI	Rating scale	Rating scale	-	37	75	Mixed	Canada
(Ter Heide et al., 2011)	EMDR, Stabilisation	10	HSCL-D	-	-	-	41.5	40	War/ Torture	Netherlands
(Ter Heide et al., 2016)	EMDR, Stabilisation	62	HSCL-D	-	-	-	41.45	27.78	War/ Torture	Netherlands
(Thorp et al., 2019)	PE, Relaxation	61	PHQ-9	-	-	-	65.54	0	Military / Service	USA

(van der Kolk et al., 2007)	EMDR, Placebo	58	BDI-II	-	-	-	36.1	83	Interpersonal	USA
(Wells et al., 2015)	PE, Metacognitive therapy, W/L	30	BDI-II	-	-	-	41.2	37.5	Mixed	England
(Zang et al., 2013)	NET, W/L	22	HADS-D	-	-	-	55.7	77.27	Accident / injuries	China
(Zang et al., 2014)	NET, W/L	20	HADS-D	-	-	-	53.63	90	Accident / injuries	China

***AEI** = Anger Expression Inventory, **AEX** = Anger Expression Scale, **BDI** = Beck's Depression Inventory, **BSI** = Brief Symptom Inventory – Depression, **CES-D** = Center for Epidemiologic Studies Depression Scale, **CPT=** Cognitive Processing Therapy, **CT-PTSD =** Cognitive Therapy for Posttraumatic Stress Disorder, **DAR-7** = Dimensions of Anger Reactions, **DASS** = Depression Anxiety Stress Scales, **DBT =** Dialectical Behaviour Therapy, **DBT-PTSD** = Dialectical Behaviour Therapy for PTSD, **EMDR=** Eye Movement Desensitisation and Reprocessing, **GDS-15** = Geriatric Depression Scale, **GDS-LD** = Glasgow Depression Scale for Learning Disabilities, **HADS-D** = The Hospital Anxiety and Depression Scale, **HDRS** = Hamilton Depression Rating Scale, **HSC-25** = Hopkins Symptom Checklist, **HSCL-D** = Hopkins Symptom Checklist for Depression, **IPT=** Interpersonal Psychotherapy, **NET =** Narrative Exposure Therapy, **PE =** Prolonged Exposure, **PHQ-9** = Patient Health Questionnaire, **QIDS** = Quick Inventory of Depressive Symptomatology, **SIT** = Stress Inoculation Therapy, **STAXI** = State-Trait Anger Expression Inventory, **TARGET** =Trauma Affect Regulation: Guide for Education and Therapy, **TAU** = Treatment As Usual, **TF-CBT =** Trauma-focused Cognitive Behavioural Therapy, **TRGI** = Trauma-Related Guilt Inventory, **TRSI** = Trauma-Related Shame Inventory, **VRET** = Virtual Reality Exposure Therapy, **W/L** = Wait List.*

Risk of Bias

A breakdown of each study's risk of bias scores is shown in Table 2. Most studies used appropriate methods to generate a random sequence to allocate participants (n=43, 61.42%). One study scored high due to changing the procedure halfway and allocating participants on a 1:1 basis. The remaining studies reported randomly allocating participants but did not describe their procedures, so were marked as unclear. 29 studies adequately reported allocation concealment, dealt appropriately with issues or used randomisation methods that prevented the investigator from knowing allocations. However, most studies (n=40, 57.14%) did not specify this and so were unclear. As with all therapeutic trials, it is not possible for therapists to be blinded to the treatment arm. In addition, patients may be able to guess their treatment, and so all studies were rated as high risk. 47 (67.14%) studies used a blinded independent rater for the assessments and were low risk. Ten studies (14.29%)

were rated as high risk as they reported participants revealing their treatment allocation to the assessors or did not deal with un-blinding adequately. 16 (22.86%) studies either did not report who completed the assessments or if assessors remained blind throughout and were rated as unclear. Most also reported complete outcome data (n=55, 78.57%), two studies (2.86%) were rated as unclear due to insufficient information, and 16 (22.86%) were rated as high risk for incomplete data. 30 (42.86%) studies reported all outcomes specified in their protocols, 40 (57.14%) were unclear as protocols were not available, and three (4.29%) studies did not report all of their pre-specified outcomes so were rated as high risk of selective reporting. 34 (48.57%) studies were rated as low risk for other forms of bias. Four (5.71%) did not have enough information to assess, and 35 (50%) were rated as high due to methodological limitations such as small sample size, use of rating scales instead of validated measures, reports of protocol deviations or low treatment fidelity.

Table 2.

Risk of bias scores for each study

Source	Random Sequence Generation	Allocation Concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective outcome reporting	Other bias
Acarturk 2015	Low	Low	High	Low	Low	Low	Low
Acarturk 2016	Low	Low	High	Low	Low	Low	Low
Adenauer 2011	Low	Low	High	Low	Low	High	High
Alghamdi 2015	Low	Unclear	High	Unclear	Low	Low	Low
Andersen 2021	Low	Low	High	High	Low	Low	Unclear
Arntz 2007	Unclear	Unclear	High	Unclear	Low	Unclear	High
Asukai 2010	Low	Low	High	Low	Low	Unclear	High
Beidel 2011	Unclear	Unclear	High	Unclear	Low	Unclear	High
Bohus 2020	Low	Low	High	Low	Low	Low	Unclear
Bryant 2003	Low	Low	High	Low	Low	Low	Low
Bryant 2019	Low	Low	High	Low	Low	Low	Low
Carletto 2016	Low	Low	High	Low	High	Low	Low
Carlson 1998	Unclear	Unclear	High	High	High	Unclear	Low
Covers 2021	Low	Unclear	High	Low	Low	Low	Low
Cottraux 2008	Unclear	Low	High	Low	Low	Low	Low

de Bont 2016	Unclear	Unclear	High	Low	Low	Low	Low
Devilly 1999	High	Unclear	High	Unclear	High	Unclear	High
Duffy 2007	Unclear	Unclear	High	High	Low	Unclear	High
Dunne 2012	Unclear	Unclear	High	High	Low	Unclear	High
Duran 2020	Low	Low	High	Low	Low	Low	Low
Efendi 2020	Unclear	Unclear	High	Unclear	Low	Unclear	Low
Ehlers 2003	Low	Low	High	Low	Low	Unclear	High
Ehlers 2005	Unclear	Unclear	High	Low	Low	Unclear	High
Ehlers 2014	Low	Low	High	Low	Low	Unclear	Low
Fecteau 1999	Low	Unclear	High	Unclear	High	Unclear	High
Feske 2008	Unclear	Unclear	High	Unclear	High	Unclear	High
Foa 1991	Unclear	Unclear	High	Low	High	Unclear	High
Foa 1999	Unclear	Unclear	high	Low	low	Unclear	High
Foa 2005	Unclear	Unclear	High	Low	Low	Unclear	Low
Forbes 2012	Low	Low	High	Low	Low	Unclear	High
Ford 2018	Low	Low	High	Low	High	Low	Low
Ghafoori 2017	Low	Unclear	High	High	Low	High	High
Hensel-Dittmann 2011	Low	Low	High	Low	Low	Unclear	Low
Högberg 2007	Low	Low	High	Unclear	Low	Unclear	High
Ironson 2002	Unclear	Unclear	High	High	Low	Unclear	High
Karatzias 2011	Low	Low	High	Low	Low	Unclear	High
Karatzias 2019	Low	Unclear	High	Low	Low	Low	High
Langkaas 2017	Low	Low	High	Unclear	Low	Unclear	Low
Lely 2022	Low	Unclear	High	Unclear	Low	Low	Low
Litz 2021	Low	Low	High	Unclear	Low	Low	Low
Marcus 1997	Unclear	Unclear	High	High	Unclear	Unclear	High
Markowitz 2015	Low	Unclear	High	Low	Low	Low	Unclear
McDonagh 2005	Unclear	Unclear	High	Low	Low	Unclear	High
Monson 2006	Unclear	Unclear	High	Low	Low	Unclear	High
Morath 2014	Unclear	Unclear	High	Low	Low	Low	Low
Nacasch 2011	Unclear	Unclear	High	Low	Low	Low	High
Neuner 2010	Unclear	Unclear	High	High	Low	Unclear	High
Nidich 2018	Low	Low	High	Low	Low	Low	Low
Nijdam 2012	Low	Low	High	Low	Low	Low	Low
Øktedalen 2015	Unclear	Unclear	High	Unclear	High	Unclear	High
Pacella 2012	Low	Unclear	High	Low	Low	Unclear	Low
Paunovic 2001	Unclear	Unclear	High	Unclear	High	Unclear	High
Perez-Dandieu 2014	Unclear	Unclear	High	Unclear	Unclear	Unclear	High
Power 2002	Low	Low	High	Low	High	Unclear	High
Reger 2016	Low	Low	High	Low	Low	Unclear	Low
Resick 2002	Unclear	Unclear	High	Unclear	Low	Unclear	Low
Rothbaum 1997	Unclear	Unclear	High	Low	High	Unclear	High
Rothbaum 2005	Unclear	Unclear	High	Low	Low	Unclear	Low
Schnurr 2007	Low	Unclear	High	Low	Low	Low	Low

Schnurr 2022	Low	Unclear	High	Low	Low	Low	Low
Sijbrandij 2007	Low	Low	High	Unclear	Low	Unclear	Unclear
Stanbury 2020	Low	Low	High	Low	Low	Low	High
Steuwe 2021	Unclear	Unclear	High	Low	Low	Low	Low
Surís 2013	Low	Low	High	Low	High	High	Low
Tarrier 1999	Low	Low	High	Low	High	Unclear	Low
Taylor 2003	Unclear	Unclear	High	Low	Low	Unclear	High
Ter Heide 2011	Low	Unclear	High	High	High	Unclear	High
Ter Heide 2016	Low	Unclear	High	Low	High	Low	Low
Thorp 2019	Unclear	Unclear	High	Low	Low	Low	Low
van der Kolk 2007	Low	Unclear	High	Low	Low	Low	Low
Wells 2015	Low	Low	High	High	High	Low	High
Zang 2013	Low	Unclear	High	Low	Low	Low	High
Zang 2014	Low	Unclear	High	Low	Low	Unclear	High

GRADE certainty of evidence

For depression, there was moderate to high certainty for findings from the analysis comparing trauma-focused therapies to TAU, and moderate certainty for trauma-focused treatments versus non-trauma-focused treatments. There was low to moderate certainty for the effect of PE compared to other trauma-focused interventions and very low to low certainty for EMDR versus other trauma-focused treatments. For anger, there was low certainty for the analysis of trauma-focused interventions versus TAU, low to moderate certainty for trauma-focused versus non-trauma-focused treatments and low to moderate certainty for PE versus other trauma-focused treatments. The certainty in findings for PE versus other trauma-focused interventions was rated as very low for guilt and low for shame. See GRADE table in Appendix C.

Depression

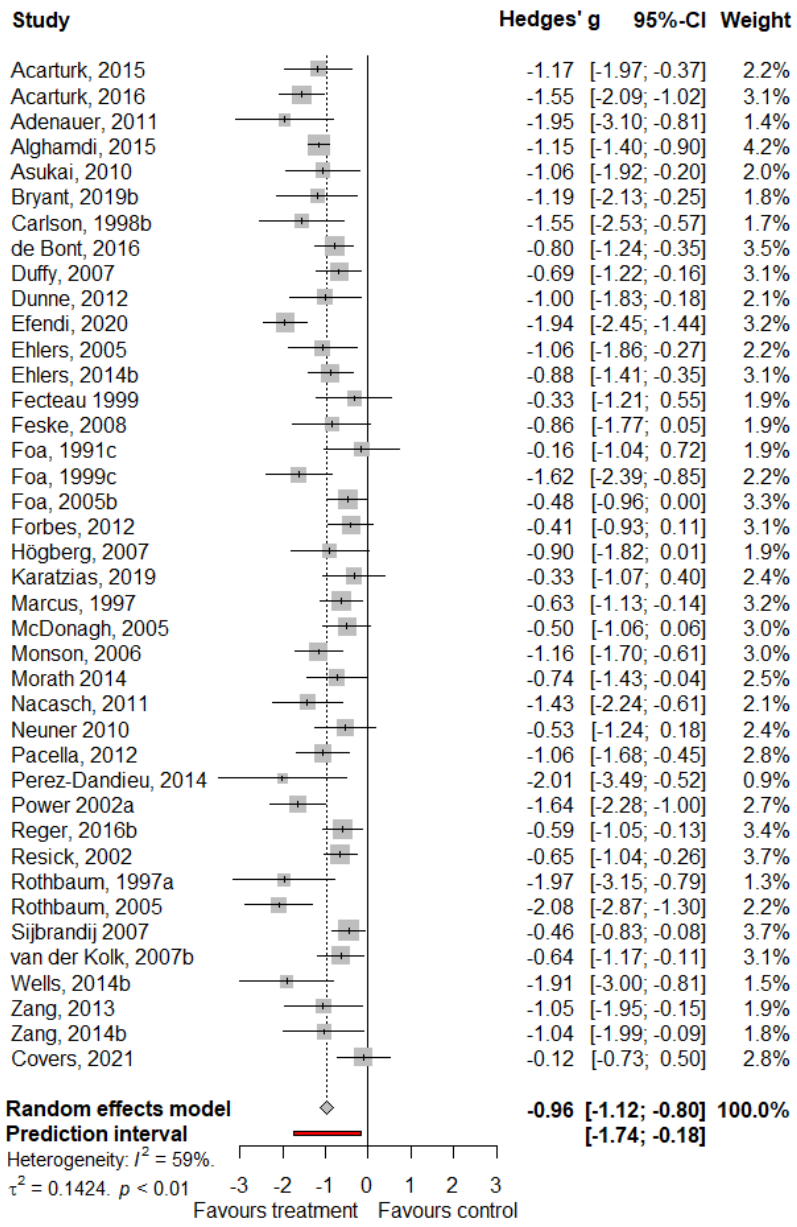
Trauma-Focused Therapies vs Treatment As Usual

Depression outcomes were reported in 40 RCTs comparing trauma-focused therapies to TAU. As shown in Figure 2, a random-effect meta-analysis showed a large significant

effect of trauma-focused therapies on depression scores compared to TAU (Hedges *g*, -0.96; 95% CI, -1.12 to -0.80). There was moderate between-study heterogeneity (I^2=59%).

Figure 2.

Forest Plot of Trauma-Focused Therapies vs Treatment As Usual for Depression



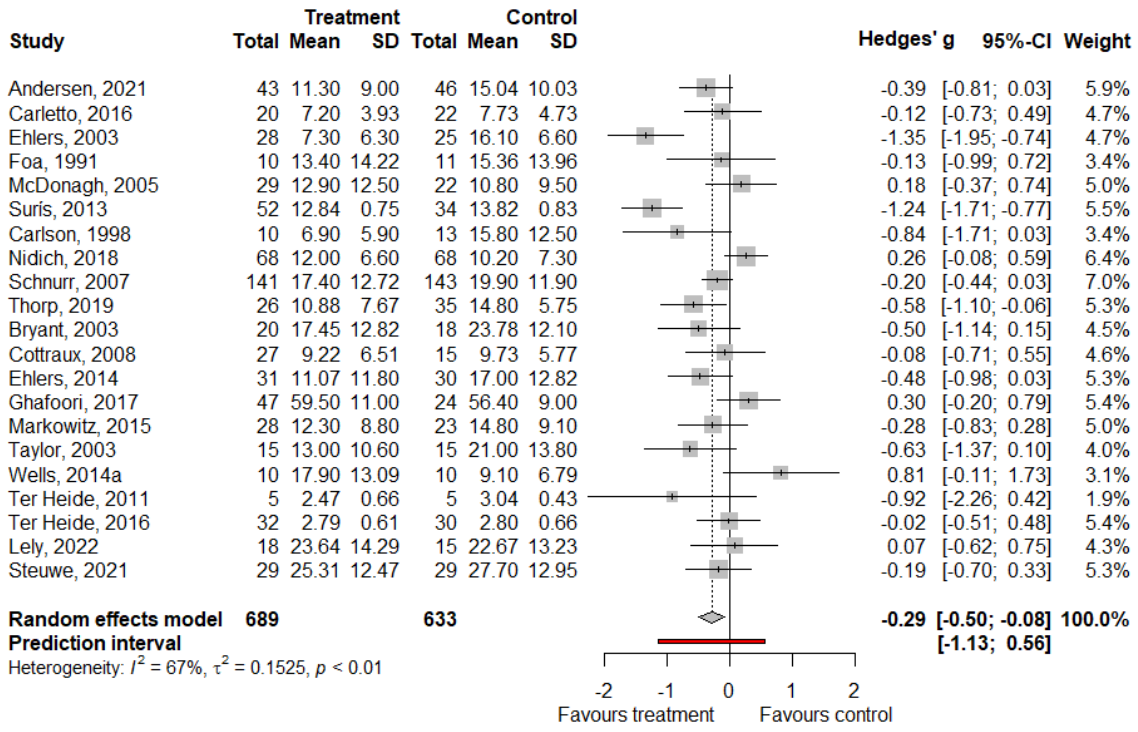
Meta-regression analyses showed no significant differences of mean age (Q=1.30, p=0.26), percentage of females (Q=0.03, p=0.87) or publication year (Q=1.19, p=0.28), across studies. In subgroup analyses, no significant differences were found between therapy types (Q=1.74; p for between-group differences =0.90) or between different trauma types (Q=4.23; p for between-group differences=0.24). See Supplementary Figures 1 and 2 (Appendix D and E).

Trauma-Focused Therapies vs Non-Trauma-Focused Therapies

There were 21 studies comparing trauma-focused therapy to non-trauma-focused treatments, with a random-effect meta-analysis showing a small significant effect on depression in favour of trauma-focused treatments for depression (Hedges *g*; -0.29; 95% CI, -0.50 to -0.08; Figure 3). There was substantial between-study heterogeneity (I^2=67%).

Figure 3.

Forest Plot of Trauma-Focused Therapies vs Non-Trauma-Focused Therapies for Depression



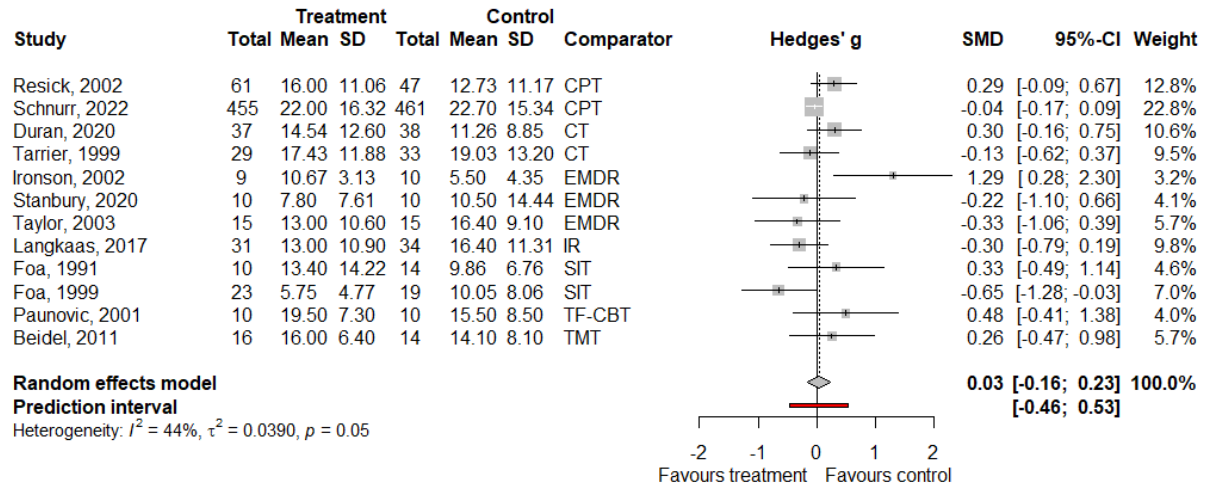
Meta-regression analyses showed no significant differences of mean age (Q=0.36, p=0.55), percentage of females (Q=0.01, p=0.92) or publication year (Q=1.30, p=0.26), across studies. In subgroup analyses, no significant differences were found between intervention (Q=0.46; p for between-group differences =0.51) or trauma types (Q=1.56; p for between-group differences =0.71). See Supplementary Figures 3 and 4 (Appendix F and G).

Direct Head-to-Head Comparisons of Trauma-Focused Therapies

A random-effect meta-analysis showed no significant difference between PE and other trauma-focused therapies on depression (Hedges g, 0.03; 95% CI, -0.16 to 0.23, n=12; Figure 4). There was moderate between-study heterogeneity (I^2=44%). Meta-regression analyses showed no significant differences of mean age (Q=0.003, p=0.96), percentage of females (Q=0.10, p=0.75) or publication year (Q=0.06, p=0.81), across studies. There were too few studies across the different trauma types to conduct a meaningful subgroup analysis.

Figure 4.

Forest Plot of Prolonged exposure vs other trauma-focused therapies for depression

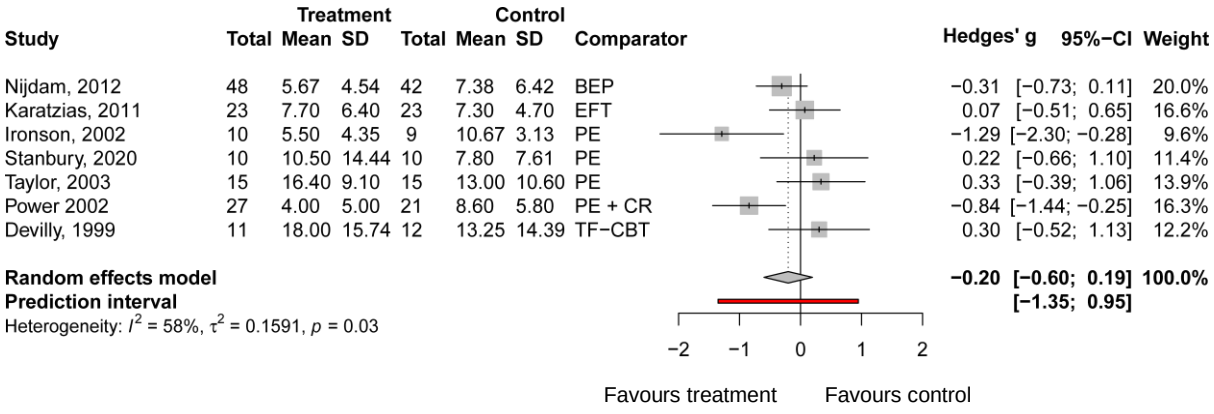


Note. ***CPT*** *= Cognitive Processing Therapy,* ***CT*** *= Cognitive Therapy,* ***EMDR*** *= Eye Movement Desensitisation and Reprocessing,* ***IR*** *= Imagery Rescripting,* ***SIT*** *= Stress Innoculation Therapy,* ***TF-CBT*** *= Trauma-Focused Cognitive Behavioural Therapy,* ***TMT*** *= Trauma Management Training*

A random-effect meta-analysis revealed that there was a small but non-significant effect of EMDR over other trauma-focused therapies (n=7, Hedges *g*, -0.20; 95% CI, -0.60 to 0.19; Figure 5). There was moderate between-study heterogeneity (I^2=58%); however, meta-regression and subgroup analyses could not be performed as there were too few studies.

Figure 5.

Forest Plot of EMDR vs Other Trauma-Focused Therapies for Depression



Note. ***BEP*** *= Brief Eclectic Psychotherapy,* ***EFT*** *= Emotional Freedom Techniques,* ***PE*** *= Prolonged Exposure,* ***CR*** *= Cognitive Restructuring,* ***TF-CBT*** *= Trauma-Focused Cognitive Behavioural Therapy*

Anger

There were nine studies exploring trauma-focused therapies on anger outcomes. No significant differences were found for anger outcomes post-therapy when comparing trauma-focused therapies to TAU (Hedges g, -0.22; 95% CI, -1.54 to 1.09, n=3; Figure 6) or trauma-focused therapies to non-trauma-focused therapies (Hedges g, 0.01; 95% CI, -0.24 to 0.25, n=3; Figure 7), or exposure therapy to other types of trauma-focused therapies (Hedges *g*, -0.08; 95% CI, -0.19 to 0.04, n=5; Figure 8).

Figure 6.

Forest Plot of Trauma-Focused Therapies vs Treatment As Usual for Anger

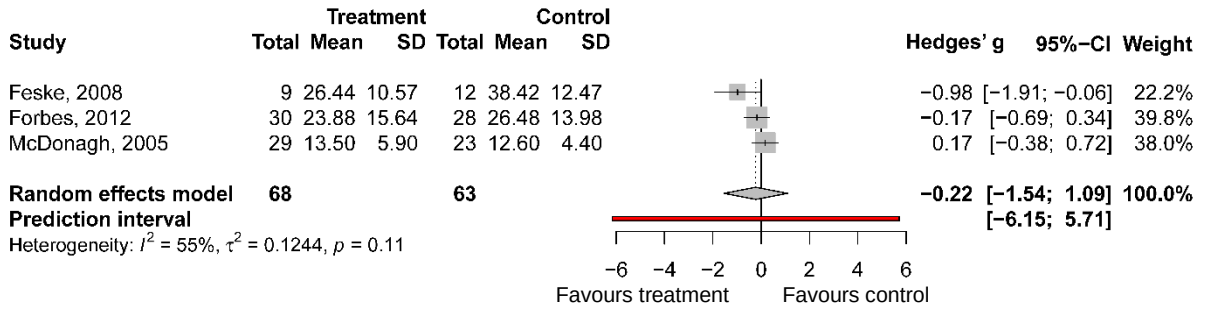


Figure 7.

Forest Plot of Trauma-Focused Therapies vs Non-Trauma-Focused Therapies for Anger

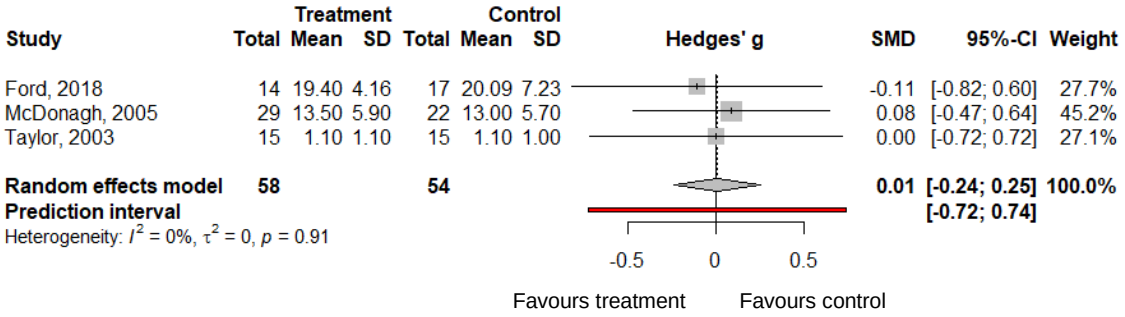
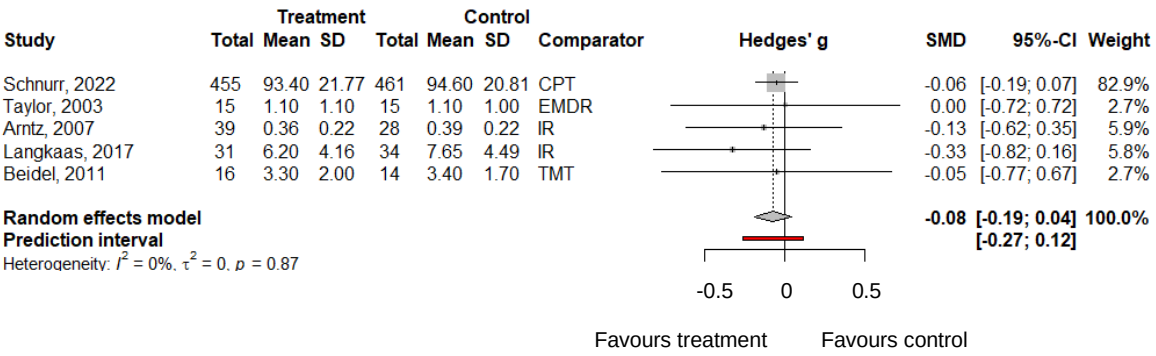


Figure 8.

Forest Plot of Exposure vs Other Trauma-Focused Therapies for Anger



Note. ***CPT*** *= Cognitive Processing Therapy,* ***EMDR*** *= Eye Movement Desensitisation and Reprocessing,* ***IE*** *+* ***IR*** *= Imaginal Exposure + Imagery Rescripting.*

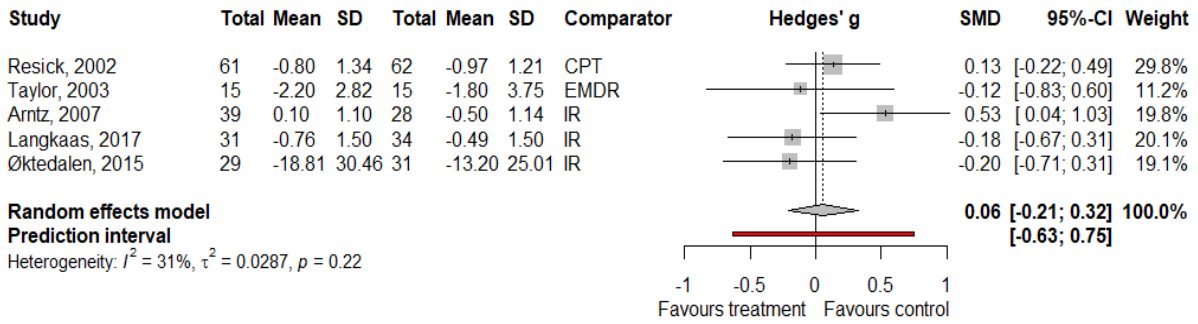
The between-study heterogeneity for pooled estimates comparing trauma-focused therapies to non-trauma-focused therapies, or PE versus other trauma-focused treatments was small (I^2=0%). However, there was moderate heterogeneity for the analysis of trauma-focused treatments compared to TAU (I^2=55%). Due to the limited number of studies, it was not feasible to perform subgroup analyses or meta-regressions.

Guilt

For guilt, only five studies could be pooled into a random-effect meta-analysis comparing PE to other forms of trauma-focused treatments. There was no significant difference between PE and other trauma-focused therapies for guilt (Hedges *g*, 0.06; 95% CI, -0.21 to 0.32, n=5; Figure 9). There was low between-study heterogeneity (I^2=31%) which could not be explored further.

Figure 9.

Forest Plot of PE vs Other Trauma-Focused Therapies for Guilt



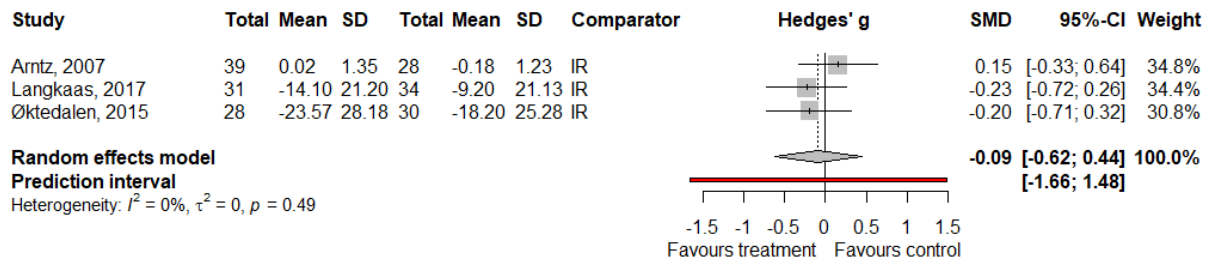
Note. ***CPT*** *= Cognitive Processing Therapy,* ***EMDR*** *= Eye Movement Desensitisation and Reprocessing,* ***IR*** *= Imagery Rescripting*

Shame

Three studies could be pooled into a random-effect meta-analysis comparing PE to other forms of trauma-focused treatments for shame, all of which happened to be imagery rescripting. There was no significant difference found between PE and imagery rescripting for shame (Hedges *g*, -0.09; 95% CI, -0.62 to 0.44, n=3; Figure 10). There was also low between-study heterogeneity (I^2=0%).

Figure 10.

Forest Plot of PE vs Other Trauma-Focused Therapies for Shame



Note. All studies compared PE to Imagery Rescripting

Publication bias

Funnel plots are presented in Supplementary Figures 5-7 (Appendix H, I and J). Publication bias could not be assessed for anger, guilt, or shame. For depression analyses, there was no visual or statistical evidence of publication bias as per Egger's test for trauma-focused therapies compared to TAU (p=0.12), non-trauma-focused interventions (p=0.42), or PE versus other trauma-focused therapies (p=0.72).

Discussion

Summary of results

This systematic review and meta-analysis explored the effectiveness of trauma-focused therapies for PTSD on depression, anger, guilt and shame. In total, 70 studies were included in the analysis; 70 examined depression, nine examined anger, five examined guilt, and three examined shame. Overall, the results showed that trauma-focused treatments were more effective at reducing symptoms of depression than both TAU and non-trauma-focused therapies. There were no significant differences between types of trauma-focused therapies for depression. Findings also showed that trauma-focused therapies had no significant effect on anger compared to TAU and non-trauma-focused therapies, and there was no significant difference between PE and other trauma-focused therapies. Finally, few studies explored the impact on shame and guilt, but those that did evidenced no difference between PE and other trauma-focused therapies (many of which included imagery rescripting). Collectively, these findings support the use of trauma-focused therapies for treating depression in individuals with PTSD but highlight the need for future RCTS to examine the effect of trauma-focused treatments on anger, guilt and shame, and explore alternative treatment options.

The Effect of Trauma-Focused Therapies on Non-Fear Emotions

Depression

Consistent with previous meta-analyses, trauma-focused therapies led to significantly greater reductions in depression than TAU and non-trauma-focused treatments (Bisson et al., 2007; Ehring et al., 2014; Seidler & Wagner, 2006; Sherman, 1998). Where previous analyses had pooled fewer studies, been conducted many years ago, focused on one trauma type, or compared limited treatment types, this study expanded the evidence by examining all trauma-focused therapies, trauma types and comparator groups. Trauma-focused therapies are

based on the theory that the event has not been fully processed, and thus many include imaginal exposure to create a full memory representation (Brewin et al., 1996; Ehlers & Clark, 2000; Foa & Kozak, 1986; Schauer et al., 2005; Shapiro, 2001). By integrating the event with the context in which it occurred, corrective or new information is introduced, which may provide evidence against the individual's negative cognitions about themselves, the world and the future, thus alleviating symptoms of depression (Beck, 2002). Furthermore, several trauma-focused therapies focus on the meaning of the event to the individual or include cognitive and behavioural techniques, which may directly target the beliefs and appraisals associated with depression, explaining the positive effect found (Ehlers & Clark, 2000; Resick & Schnicke, 1992). The findings that trauma-focused therapies appear to effectively reduce depression and there are no significant differences between type of trauma-focused therapy suggest that memory reprocessing may be the key mechanism of change. Although, it is important to consider that depression may be a secondary emotion resulting from the impact of PTSD on the individual. Therefore, it may be that once symptoms of PTSD reduce, the depression then subsides (Rosen et al., 2020).

Anger

Previous studies have suggested that anger prevents emotional engagement in exposure and impedes the activation of the fear network required for memory processing (Foa & Kozak, 1986; Foa et al., 1995; Jaycox & Foa, 1996; Pitman et al., 1991). In this study, a small but non-significant reduction in anger was found favouring trauma-focused therapies over TAU. Additionally, no significant differences were found between trauma-focused and non-trauma-focused therapies for anger. Whereas trauma-focused therapies have been demonstrated to lead to significant medium to large reductions in PTSD symptoms and depression compared to controls (Bisson et al., 2007; Lenz et al., 2017; Seidler & Wagner, 2006), the lack of significant difference between therapies for anger could support the

hypothesis that anger impedes emotional engagement and leads to poor treatment outcomes (Foa & Kozak, 1986; Foa et al., 1995; Jaycox & Foa, 1996). Furthermore, as there was no significant difference between trauma-focused and non-trauma-focused treatments, these findings could suggest that cognitive restructuring and relaxation techniques/ coping strategies may be crucial mechanisms for reducing anger, whereas exposure may be less effective (Deffenbacher & McKay, 2000; Taft & Niles, 2004). Nevertheless, these findings warrant further exploration given the limited number of studies that could be pooled for meta-analyses and the inclusion of studies with an unclear risk of bias in several domains, two studies at high risk of incomplete data, and six studies at high risk of other methodological biases such as small sample sizes or the use of unvalidated/ incomplete measures. Furthermore, as different measures were used across studies, it may be that some measured primary anger whereas others measured secondary anger. There may be differing effects of trauma-focused interventions on anger dependent on whether the emotion is in response to the trauma or its impact on the individual. Given these limitations and the findings that none of these analyses were significant, it is important for further studies to explore the effect of trauma-focused therapies on anger.

Guilt and Shame

Some frontline trauma-focused therapies have been suggested to be less effective at reducing guilt and shame (Ehlers & Clark, 2000; Lee et al., 2001). These two emotions are frequently interlinked as researchers suggest that guilt can be caused by the perception that an individual's actions fail to meet their standards, reinforcing a deeper belief about themselves and resulting in shame (Lee et al., 2001). Theories suggest that being repeatedly exposed to the traumatic event linked to these emotions and the cognitions underlying them may worsen their severity (Lee et al., 2001; Pitman et al., 1991; Smucker et al., 2003). Unfortunately, too few studies explored guilt or shame to draw any conclusions about the effect of trauma-

focused interventions in reducing these (compared to TAU or non-trauma-focused therapies) or to explore variations between the different NICE recommended trauma-focused therapies.

Research often suggests that imagery rescripting may be a more effective approach for targeting shame and guilt as the individual is encouraged to imagine a different outcome or response to the event as opposed to reliving it through exposure (Grunert et al., 2003; Grunert et al., 2007; Lee, 2009). Imagery rescripting is also believed to have a greater impact on changing the event's meaning than exposure alone. However, this meta-analysis identified three studies that compared exposure therapy to imagery rescripting and found no significant difference between them for shame. Three out of five studies pooled for an analysis on PE versus other trauma-focused treatments for guilt used imagery rescripting as the comparator, and no significant differences were found. Nevertheless, these meta-analyses were limited by lower quality studies, with most demonstrating an unclear risk of bias in several risk domains, one at high risk of incomplete data, and several with other methodological biases, including unvalidated rating scales and small samples. There was low to very low certainty in the evidence for these analyses. Further studies with more rigorous procedures are needed to explore the impact of trauma-focused therapies on shame and guilt.

Comparisons of treatments across emotions

Overall, the present study indicates that trauma-focused treatments may have different effects on different emotions. Where trauma-focused therapies had a large significant effect on depression compared to TAU and non-trauma-focused therapies, there was no significant difference for anger. Additionally, while no studies compared trauma-focused treatments to TAU or other types of therapies for guilt and shame, existing literature suggests that they may be less effective for these emotions compared to depression. Furthermore, no differences were found between prolonged exposure and other trauma-focused treatments for guilt,

shame or anger. It is important to note that in this study, it is unknown whether depression or anger were primary or secondary emotions, whereas the studies on guilt and shame used measures to assess primary trauma-related emotions.

It may be that there are different effects of trauma-focused therapies on emotions dependent on whether they are primary emotions experienced as a direct response to the traumatic event (Grey et al., 2001), or secondary emotions experienced in response to the consequences of the trauma on the individual (Brewin, 2001; Brewin et al., 1996). Secondary emotions may reduce as a result of the PTSD symptoms improving with memory reprocessing, for example, if an individual feels shame, guilt or anger because they had PTSD symptoms and felt unable to manage them, then these emotions would improve with the reduction in PTSD. On the other hand, primary emotions may require more cognitive restructuring or alternative therapeutic approaches (Grey et al., 2002; Lee, 2009).

One explanation for why guilt, shame and anger may not reduce with trauma-focused treatments as suggested by the literature is that they are often associated with interpersonal processes. For example, guilt is often linked to actions or inactions towards others (Kubany & Manke, 1995; Maercker & Horn, 2013); shame is linked to the belief that others hold a negative view of you (Lewis, 1971; Tracy & Robins, 2004); and anger is associated with a sense of injustice caused by others (McHugh et al., 2012). As these emotions extend beyond the individual, it may be that trauma-focused therapies fail to target these interpersonal difficulties (Maercker & Hecker, 2016). Due to the limited number of studies available, additional research is needed to explore the potential differences and help better understand which treatments work best for which emotions.

Strengths and limitations

Strengths of this meta-analysis include the focus on RCTs as the gold standard for exploring treatment effectiveness. The use of randomised trials with comparison groups helps to further aid clinicians in determining which treatments to use and when (e.g., showing when they are more effective than non-trauma-focused treatments). This study also benefits from the division of control groups into 1) TAU, 2) non-trauma-focused, and 3) other trauma-focused therapy, which provides meaningful comparisons as opposed to pooling studies with vastly different approaches (Ehlers et al., 2010).

Nevertheless, there are several limitations. As with all meta-analyses, between-study heterogeneity is inherent, and several of our analyses identified moderate to substantial levels. Little heterogeneity was explained through meta-regressions and subgroup analyses of trauma and intervention type. Additionally, for some analyses, there were too few studies to explore the heterogeneity further.

Few studies had included follow-up data for non-fear emotions and those that did reported follow-up data for differing time periods (e.g. 6-weeks, 3-months, 6-months, 12-months) which would have been too inconsistent to pool into a meaningful analysis. Therefore, this study only analysed post-treatment outcomes and did not report follow-up data. As it is unclear whether the non-fear emotions are primary responses to the trauma or secondary to the PTSD symptoms, it may be that the effect of trauma-focused treatments on non-fear emotions occurs after the alleviation of PTSD symptoms in the follow-up period. Therefore, future research would be needed to explore the long-term effects of trauma-focused treatments on non-fear emotions when more data is available, and to look at whether treatment outcomes differ for primary and secondary emotions.

This review identified several areas of bias within the included studies, for example, incomplete outcome data, small sample sizes, low treatment fidelity or blinding issues. Some

studies also showed differences between groups at baseline despite randomisation. Inverse variance analyses were used to account for studies with small sample sizes, more conservative effect sizes were used (Hedges *g*), and change from baseline was computed in some analyses to account for baseline differences. Nevertheless, the certainty in the findings was low overall for the majority of the analyses due to methodological limitations, unclear risks of bias, imprecision and inconsistencies across studies. In particular, the findings regarding anger, shame and guilt should be interpreted cautiously due to low certainty as per the GRADE ratings. Although, the impact of trauma-focused treatments on depression compared to TAU and non-trauma-focused treatments were rated as moderate-high and moderate certainty respectively.

This study could not compare trauma-focused treatments to TAU or non-trauma-focused therapies for shame and guilt, so limited conclusions can be drawn. Future research is needed to explore the effect of trauma-focused therapies on anger, guilt and shame using more rigorous methods. Overall, this study highlights a gap of available research for trauma-focused treatments on non-fear emotions.

Conclusion

Depression, anger, guilt and shame are common in individuals who have PTSD; however, few studies have investigated the effect of trauma-focused treatments on non-fear emotions, which have been suggested to impede patient outcomes. This paper presents the first meta-analysis to explore the impact of trauma-focused interventions on non-fear emotions. A total of 70 RCTs comprising 5,199 participants were included; 70 examined depression, nine examined anger, five examined guilt, and three examined shame. Trauma-focused therapies were found to significantly reduce depression compared to TAU and non-trauma-focused treatments. Conversely, there were no significant differences between trauma-focused and non-trauma-focused treatments or TAU, and no difference between PE

and other trauma-focused therapies for anger. Very few studies reported outcomes for guilt and shame, so limited analyses could be conducted. However, findings showed no difference between PE and other trauma-focused therapies for shame and guilt. Additional research is needed to explore the effectiveness of PTSD treatments for non-fear emotions and compare the impact of different treatment types to aid clinicians in selecting treatments most suited to their client's presentation.

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Service Improvement Project

Improving patient information within the Berkshire Traumatic Stress Service's Birth Trauma pathway

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Abstract

This service improvement project explored the information needs of service users (SU's) within a Birth Trauma Pathway in the Berkshire Traumatic Stress Service and developed a booklet based on recommendations. Routine service outcome and satisfaction data, a self-report questionnaire and semi-structured interviews with eight birth trauma SU's were used to gather feedback and suggestions for improvements. Overall, findings indicated that SU's were neither satisfied nor unsatisfied with the current information given. Interviews revealed the need for information on understanding birth trauma, learning about the treatment pathway, normalising birth trauma and overcoming barriers to help-seeking, coping strategies, and the aesthetics and practicalities of delivering the information. Subsequently, an information booklet for the Birth Trauma Pathway was designed in collaboration with four birth trauma SU's. After an 18-month pilot, pre and post data will later be compared to determine any differences in SU satisfaction, drop-out and non-attendance rates after introducing the booklet.

Key Words: Birth, Trauma, PTSD, postnatal, mental health

Introduction

The Impact of Postnatal PTSD

While childbirth is viewed as a positive life event for many, approximately 34% of women report experiencing birth as traumatic, and 3.4% to 6.1% go on to meet the criteria for post-traumatic stress disorder (PTSD) (Beck, 2004; Yildiz et al., 2017). PTSD is a psychological condition characterised by re-experiencing symptoms, avoidance, hyperarousal, negative alterations of mood and cognition, and impairments to day-to-day functioning (American Psychiatric Association, 2013). Mothers with postnatal PTSD often suffer from additional depression, anxiety and physical health problems, with many reporting ongoing pain and exhaustion months to years after childbirth (Ayers et al., 2006; Dikmen-Yildiz et al., 2017; Leeds & Hargreaves, 2008; White et al., 2006).

The effect of postnatal PTSD has also been suggested to negatively impact relationships, mother and infant bonding, and family functioning (Ayers et al., 2006; Ionio & Di Blasio, 2014; McDonald et al., 2011; Parfitt & Ayers, 2009; Simpson et al., 2018). Research highlights that postnatal mental health difficulties can increase the risk of children developing insecure attachments, mental health difficulties and chronic stress in later life (Ainsworth & Bowlby, 1991; Brand et al., 2011; Prigel, 2018). However, a systematic review on the effect of postnatal PTSD on child outcomes found inconsistent evidence for the impact on child development and mother-child bonding (Cook et al., 2018). While some studies suggested that PTSD leads to an increased risk of poor social-emotional development and emotion regulation up to 2-years after birth (Enlow et al., 2011; Garthus-Niegel et al., 2017), others showed that maternal PTSD was not associated with cognitive development at 6-months (Feeley et al., 2011). Furthermore, while some studies have found that women with postnatal PTSD report poorer relationships with their babies, others have found no

association between PTSD and maternal perceptions of mother-baby bonds (Cook et al., 2018).

Despite the inconsistent findings on outcomes for children born to mothers with PTSD, psychological treatment appears to improve maternal mental health. A recent meta-analysis found that trauma-focused therapies effectively reduced symptoms of postnatal PTSD up to three months (SMD=−0.50, 95% CI=−0.73,−0.27) and six months (SMD=−1.87, 95% CI=−2.60,−1.13) after treatment compared to usual care (Furuta et al., 2018). An audit of a specialist birth trauma service in Sheffield additionally found large effects for trauma-focused therapy on reducing PTSD symptoms (*d*=1.29), anxiety (*d*=0.96) and depression (*d*=0.86) for women with postnatal PTSD (Williamson et al., 2021). A single case study found that trauma-focused therapy also appeared to improve mother-child bonding (Madrid et al., 2006). While there are no studies that have explored the impact of effective PTSD treatment on long-term child outcomes, a randomised controlled trial found that effective CBT for postnatal depression was associated with normal child development (Howard & Challacombe, 2018). These findings suggest that reducing postnatal PTSD symptoms could not only lead to better health outcomes for the mother but also for the child.

Aetiology of Postnatal PTSD

In the cognitive model of PTSD, emphasis is placed on the nature of the trauma memory, and the individual's appraisals of the event and its consequences as the underlying mechanisms which lead to a current and enduring sense of threat (Ehlers & Clark, 2000). In cases of postnatal PTSD, factors including previous traumas, complications during pregnancy or childbirth, delivery pain, injury to or loss of the child, social support, and perceived poor interactions with clinicians have been shown to affect memory processing, worsen negative appraisals and exacerbate PTSD (Alcorn et al., 2010; Grekin & O'Hara, 2014). The

interpersonal experiences and nature of communication by clinicians can add to the mother's sense of helplessness, fear or distress experienced during and after childbirth (Beck, 2004; Bogdan et al., 1982; McGowan et al., 2017). In particular, women with postnatal PTSD experience higher levels of guilt and shame than individuals with other trauma types (Ayers et al., 2007), which is often exacerbated by a reported lack of understanding and stigma from others (Moore et al., 2016). The impact that communication and support from others can have on postnatal PTSD highlights the need for women to feel understood and receive appropriate information.

The Importance of Tailored Information

Tailored information for individuals with PTSD can positively impact patient experience and engagement. Several studies have illustrated that individuals with PTSD find it helpful to receive information about treatment, support, the symptoms and the causes of their PTSD (Herbert, 2002; Watts et al., 2016). While a randomised controlled trial found no significant difference in symptoms of depression or PTSD compared to usual care, those who were given a booklet reported finding the information on psychological sequalae and coping strategies useful (Turpin et al., 2005).

Qualitative interviews of 7 women with postnatal PTSD highlighted that feeling understood by others was essential to their recovery and endorsed the use of psychoeducation and normalisation (Peeler et al., 2018). The interviews highlighted that women with postnatal PTSD often receive conflicting information from healthcare professionals. Gathering first-hand recommendations from women about what information it would be helpful to receive could increase patient understanding, relieve confusion, improve satisfaction with services, and reduce drop-outs.

The National Institute of Health and Care Excellence (NICE) guidelines for PTSD recommend providing information to service users (SU's) in both verbal and written forms regarding the service, common reactions to trauma, symptoms, assessment, treatment, and support options (National Institute for Health and Care Excellence, 2018). In 2016, the Berkshire Traumatic Stress Service (BTSS) set up one of the first Birth Trauma Pathways in the United Kingdom. The service offers group therapy as the first phase of treatment to help individuals better understand postnatal PTSD, and individualised trauma-focused therapy as the second phase. As a new service, they had no written information for Postnatal PTSD, and women were given either no information or a booklet about Complex PTSD, which several reported to their clinicians that they struggled to relate to. Consequently, the service lead identified the need for specialised information on Postnatal PTSD.

This project aims to assess the views of SU's in the Birth Trauma Pathway on the information they have already received and how this can be improved to inform the design of a new information source. A pilot cohort of SU's receiving the new information will be compared to a pre-existing cohort who did not receive this, with data examining patient satisfaction, engagement and drop-outs, and qualitative reports of whether it helped them to feel understood, and helped them understand their symptoms and the service better.

Methods

Research questions to be addressed:

1) What are SU's experiences of the information they have received from the birth trauma pathway (as measured by satisfaction, drop-outs, sessions missed, and qualitative reports)?

2) How can information be adapted to help improve patient experience within the service (as measured by satisfaction, drop-outs, sessions missed, and qualitative reports)?

Ethics

Berkshire Healthcare NHS Foundation Trust's Research and Development team reviewed the project proposal and study documents. This study was then approved as a service development and clinical audit project. An email confirmation was sent to the researcher to confirm that the project may proceed. SU's were all given an information sheet and completed a consent form to ensure they understood the purpose of the project, how their data would be used and wanted to take part.

Participants

As birth trauma SU's may not have had not received any information, five SU's from the Complex PTSD Pathway were asked to give feedback on their complex PTSD booklet to use as suggestions, and inform an interview schedule for birth trauma participants. The research team decided this small sample size was adequate as the complex PTSD booklet was not the primary focus of this project. One additional SU declined to take part.

Eight SU's from the Birth Trauma Pathway completed interviews and a questionnaire about their current experiences and what information they would like to receive. Seven additional birth trauma SU's were contacted; four did not respond, and three declined to take part. All participants were white British females, ranging from 29-38 years of age (M=33.13), were all in relationships, and had healthy babies. Some had only had their initial assessment, others had completed only the first phase of group therapy but the majority had finished all treatment. Four participants were involved in co-designing the booklet.

All participants were recruited by their clinicians, who discussed the purpose of the study, and provided them with an information sheet and consent form to sign. Participants were informed the researcher was a Trainee Clinical Psychologist who was working on an honorary basis in the service to complete this project and was external to their clinical care.

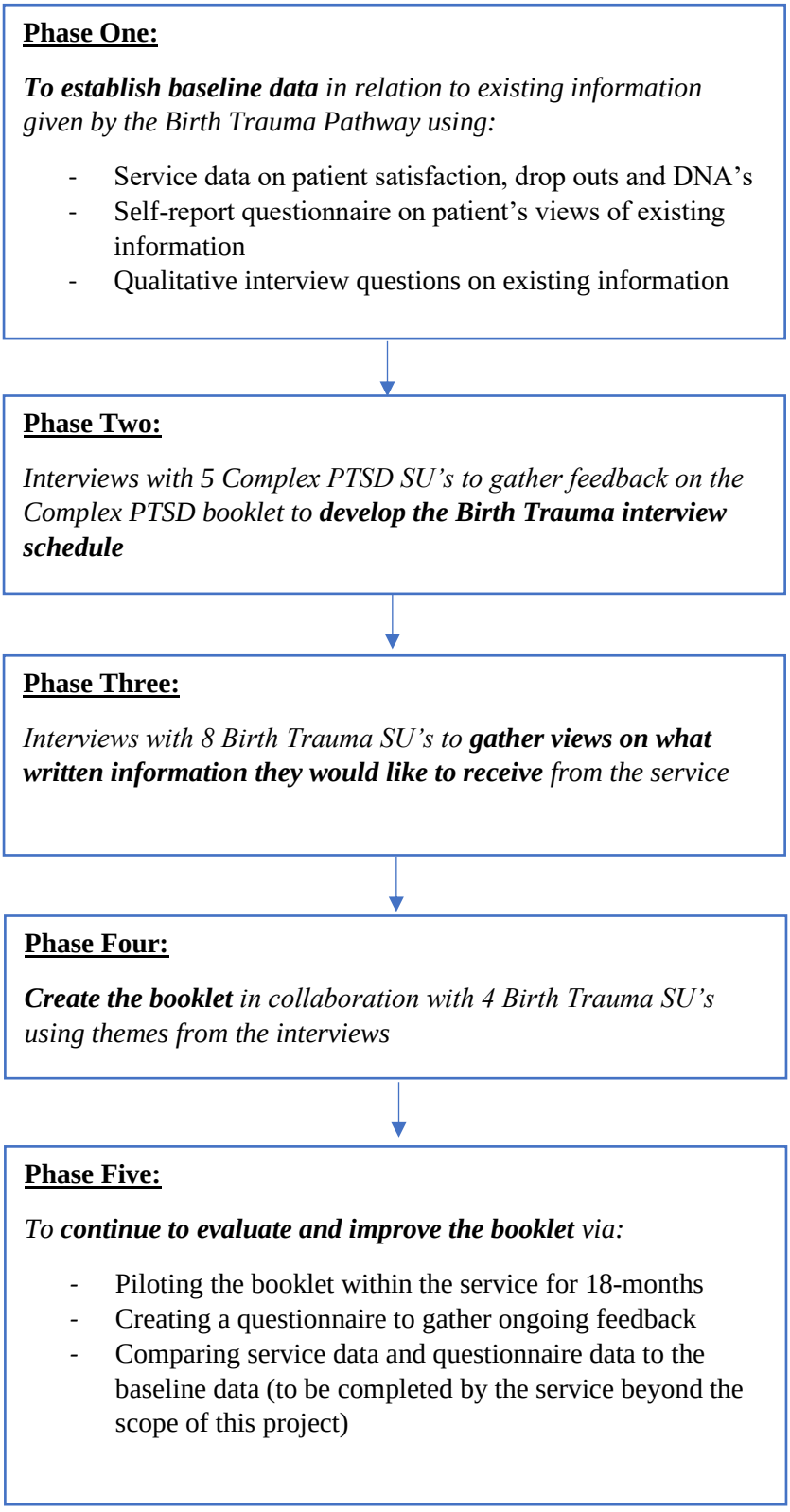
They were asked to provide their contact details and then contacted separately by the researcher.

Design

This service improvement project used a mixed-methods design and consisted of five phases, as outlined in Figure 1. Routinely collected data from electronic health records were used alongside a self-report questionnaire about existing information, and a semi-structured interview about the type of information SU's would like to receive.

Figure 1.

Flow chart of project phases



Phase One

Phase one aimed to address the first research question of understanding SU's experiences of the information currently given by the birth trauma service using routine data, questionnaires and qualitative feedback. Routine data from SU's who completed treatment within the 18-month period prior to this study were obtained from electronic health records (February 2019 to August 2020) to establish a baseline measurement of satisfaction, the number of sessions not attended, and drop-outs. As part of the routine data, participants completed satisfaction measures after treatment, which comprised of twelve questions rated on a scale of 1 (Excellent/Strongly Agree) to 5 (Terrible/Strongly Disagree).

Participants who had been involved with the service within the past six months and had consented to take part were phoned by the researcher and asked their views on the information they had received. An information sheet was provided that detailed the purpose of the project, what it would involve and how data would be used. Participants were then asked to consent to take part and for the use of the audio recording. See Appendix M and N for the information sheet and consent form. The interview combined questions from phases one and two and lasted approximately 20-45 minutes. The questions were developed in collaboration with the research team and were asked to gather women's responses to information they had received. See Appendix P.

SU's were also asked to complete a questionnaire over the phone about the information they had received by rating statements on a 5-point scale (1=strongly disagree, 5=strongly agree). The statements asked if the information helped SU's feel less alone, understand postnatal PTSD, understand how the service works, learn coping strategies, engage and feel satisfied with the service. These questions were developed in collaboration with the service and research team. See Appendix L for the questionnaire.

Phase Two

As women in the birth trauma pathway were at different stages of treatment and may not have received any information, five SU's from the complex PTSD pathway who received a standardised booklet as part of their treatment were initially interviewed. This interview aimed to determine what they had found helpful or unhelpful with their Complex PTSD booklet to aid with the development of an interview schedule for the birth trauma participants. The questions asked to the Complex PTSD SU's were developed in collaboration with two staff members within the Complex PTSD service. See Appendix O for the interview schedule.

Interviews were then transcribed verbatim and analysed using an inductive approach to thematic analysis due to the small sample size and need to understand SU's views (Braun & Clarke, 2012). All data were analysed using NVivo (Version 12). Themes were determined by what the SU's felt was important to include, and what had been helpful. Final codes were triangulated through discussion with the research team, and these themes formed the questions asked in the birth trauma interview (see Appendix P).

Phase Three

Phase three aimed to address the second research question of how SU's experiences of the service could be improved. Semi-structured qualitative interviews were conducted with Birth Trauma pathway SU's to explore what information they would like to receive (see Appendix P). Interviews continued until data saturation was reached (Guest et al., 2006), resulting in a sample of eight participants. Interviews were transcribed verbatim, and thematic analysis was used given the small sample size and need to explore patterns of SU's views (Braun & Clarke, 2012). All data were analysed using NVivo (Version 12), and final codes were triangulated through discussion with the research team.

Phase Four

The fourth phase expanded on the second research question of how information can be designed to improve patient experience in the birth trauma pathway. Themes were taken from the birth trauma interviews, and the information booklet was co-designed with the help of four birth trauma pathway SU's who chose their level of input. Three SU's contributed their stories anonymously, and another edited the booklet. Informal feedback was then gathered from clinicians in the team and used to edit further.

Phase Five

In phase five, the booklet was piloted, and measures were put in place to continue collecting feedback via a questionnaire to improve SU experiences, satisfaction, and outcomes. This phase will be continued by the service. The same questionnaire used in phase one will be used to compare findings before and after the booklet's introduction, with some additional qualitative questions added (Appendix L and Q). A cohort of SU's will pilot the booklet and provide feedback over 18-months. Data about SU satisfaction, number of drop-outs, and sessions not attended will continue to be gathered over this period for the service to compare the impact of the booklet to the prior cohort of SU's.

Researcher perspective

The first author (RA) conducted the interviews and analysed the qualitative data. RA is a 28-year-old white British female who was a Trainee Clinical Psychologist working within an external child mental health team during this project. RA had previous clinical and research experience in military-related trauma and has a specialist interest in PTSD. However, RA had no role within the birth trauma service and had no previous experience of working with postnatal PTSD or having experienced childbirth herself. RA took an epistemic stance that there is some objective truth to be found but it is socially constructed.

Results

Phase One

Information participants received

As the service did not have a postnatal PTSD booklet, two of the eight SU's reported receiving a booklet on Complex PTSD after their assessment, whereas the other six reported receiving only therapy handouts once they were in treatment. While some participants had not received information during the waiting period, all participants had received some form of written information over the course of their involvement with the service. The information received was not standardised and differed between SU's.

Routine Service Data

In the 18-months between February 2019 and August 2020, the Birth Trauma Pathway had involvement with 47 SU's. Three of these were discharged mid-treatment due to trauma-focused treatment not being suitable for them at this time. One client was discharged due to becoming destabilised; another was reported to be preoccupied with hospital care and could not engage, and the other was unable to engage in trauma work although the reason was not specified. Of the remaining 44 SU's, three dropped out of treatment around the assessment phase, and 22 sessions from ten individuals were not attended.

Satisfaction data collected from 15 SU's is presented in Table 1. Six individuals did not answer all of the questions. Overall, SU's agreed their problems had been dealt with (M=1.33, SD=0.90, range=1-4), the quality of the service was good (M=1.80, SD=1.37, range=1-4), they had the right amount of support (M=1.10, SD=0.32, range=1-2), they felt listened to and understood (M=1.00, SD=0), valued and respected (M=1.00, SD=0), involved in their care (M=1.56, SD=1.33, range=1-5), the right amount of information was given (M=1.67, SD=1.15, range=1-4), staff were sensitive (M=1.22, SD=0.44, range=1-2), their

relationship with their baby improved (M=1.25, SD=0.71, range=1-3), they understood and could cope with PTSD (M=1.22, SD=0.44, range=1-2), and would recommend the service (M=1.60, SD=1.12, range=1-4). However, the mean score for getting help quick enough scored in the neither agree nor disagree range (M=2.89, SD=1.62, range=1-5).

Table 1.

Anonymous service satisfaction data from the birth trauma pathway

	Deal with problems	Quality of service	Amount of support	Listened & understood	valued and respected	Involved in care	Amount of info given	Get help quickly	Staff sensitive	Relationship with baby	Understand and cope with PTSD	Recommend Service
1	1	1	1	1	1	2	1	2	2	1	1	1
2	1	1	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	1
3	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	2	1	1	1	2	5	2	1	1	1
5	1	1	1	1	1	5	2	5	1	3	2	2
6	4	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
7	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	2	1	1	1	1
9	3	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3
10	1	1	1	1	1	1	1	4	1	1	2	1
11	1	1	1	1	1	1	1	2	1	1	1	1
12	1	4	N/A	N/A	N/A	N/A	4	N/A	N/A	N/A	N/A	4
13	1	4	N/A	N/A	N/A	N/A	4	N/A	N/A	N/A	N/A	4
14	1	1	1	1	1	1	1	4	1	N/A	1	1
15	1	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
Mean (SD)	**1.33 (0.90)**	**1.80 (1.37)**	**1.10 (0.32)**	**1.00 (0)**	**1.00 (0)**	**1.56 (1.33)**	**1.67 (1.15)**	**2.89 (1.62)**	**1.22 (0.44)**	**1.25 (0.71)**	**1.22 (0.44)**	**1.60 (1.12)**

*Items are reverse scored. 1= Excellent/Strongly Agree. 2= Good/Agree. 3=Fair/Neither Agree nor Disagree. 4= Poor/Disagree. 5= Terrible/Strongly Disagree.

Questionnaire data

SU's completed a questionnaire about the written information they had received. Satisfaction with information was rated as neither agree nor disagree (M=3.00, SD=1.41, range=1-5). The information helping to understand the service better scored between disagree to neither agree nor disagree (M=2.75, SD=1.16, range=1-5); understanding birth trauma was rated as neither agree nor disagree (M=3.00, SD=1.31, range=1-5); coping strategies scored

between neither and agree (M=3.13, SD=1.55, range=1-5); information helping them to feel less alone scored between disagree to neither (M=2.88, SD=1.64, range=1-5); it helping them to engage scored between neither and agree (M=3.38, SD=1.19, range=2-5); being clear and easy to read scored between neither and agree (M=3.88, SD=1.13, range=2-5); being well presented scored between neither and agree (M=3.38, SD=1.30, range=2-5); containing the right amount of information scored between disagree and neither (M=2.63, SD=1.60, range=1-5); received it at the right time scored between disagree and neither (M=2.25, SD=1.49, range=1-5), and would recommend the service scored between agree and strongly agree (M=4.75, SD=0.46, range=4-5).

Table 2.

Questionnaire data about existing information from eight birth trauma participants

	Satisfied	Understand service	Understand birth trauma Coping strategies	Feel less alone	Increase engagement	Clear/easy to read	Well presented	Right amount	Right time	Recommend Service
1	2	2	3	2	2	3	3	3	1	2	5
2	1	1	2	1	1	2	2	2	1	1	5
3	4	3	4	5	4	3	4	4	4	4	5
4	4	3	4	2	5	5	5	2	4	1	4
5	5	5	5	5	5	5	5	5	5	5	5
6	4	3	3	4	3	4	5	5	3	2	4
7	2	2	2	2	2	2	3	2	2	1	5
8	2	3	1	4	1	3	4	4	1	2	5
Mean (SD)	**3.00 (1.41)**	**2.75 (1.16)**	**3.00 (1.31)**	**3.13 (1.55)**	**2.88 (1.64)**	**3.38 (1.19)**	**3.88 (1.13)**	**3.38 (1.30)**	**2.63 (1.60)**	**2.25 (1.49)**	**4.75 (0.46)**

Phase Two

Themes from Complex PTSD interviews

Four overarching themes and eleven sub-themes covering important aspects of information arose from the interviews with SU's in the Complex PTSD Pathway. The first

superordinate theme was the need for information about the service and treatment pathways, specifically what trauma therapy entails, what to expect and information about the service such as referrals, demographics and staff. The second superordinate theme was support and self-help. SU's reported it helpful to include coping strategies, signposting to resources and other services, and said they would like information for family members and friends. The next theme was the importance of understanding PTSD through psychoeducation, normalisation and hearing others' stories. The final theme related to the practicalities of receiving information, including having it accessible electronically and not having too much information. An interview schedule for the birth trauma participants was developed with these themes given as categories, and examples taken from quotes (see Appendix P). Themes and quotes are illustrated in Table 3.

Table 3.

Themes from interviews with five SU's in the complex PTSD pathway

Superordinate theme 1. Treatment and service information	
Subordinate theme	**Example quotes**
What is trauma therapy	Four SU's said it is helpful to know what therapy entails, including the different treatment phases and formats. *"…maybe adding in a bit more about what types of treatment you offer and what the different services are"* – SU 1. *"Yeah. So that needs to be a lot clearer. It doesn't really make sense what you're going to be doing in that phase. Yeah. So that's, like, adding in will I be speaking to someone about this? Or will this be a group? Or? You know, what actually is it?"* – SU 2.
Managing expectations	Three SU's emphasised the importance of managing their expectations around the impact of treatment, knowing it will be up and down, how long treatment would take and knowing that there is no cure.

	"And so I think maybe having that information, you know, this is not just going to be, you know, sort of six months, and it's all done and dusted..." – SU 2. *"And like, what I didn't understand was when I finish the PTSD treatment, would I be passed on to someone else? Would I be cured? That's what I thought that once you have counselling, you haven't got it anymore. You're you're over PTSD. But I've had PTSD counselling, but I'm not over it. It would have been helpful to know, you know, maybe some people do get cured but some don't."* – SU 3.
Service specific information	Two SU's liked having information about the Berkshire Trauma Service specifically, such as who is in the service, what type of SU's do they see and what specific treatments are offered there. *"Like, data about how many people have PTSD and like how many people have this type of trauma or that experience or whatever. And like, how many people use the service, how many referrals do you get?"* – SU 1. *"Oh actually, I've just thought, maybe there could be more information about the service, like, the type of referrals you receive, how many you get, who's in the service, so you can see the different people you might be working with."* – SU 5.
Superordinate theme 2. Support and self-help.	
Sign posting to resources and services	All five SU's liked the range of resources and services that were listed in their booklet and reported finding this helpful to include. *"You know, a lot of people who are going through trauma, will also have those worries, you know, finances, work or housing. Yes, it's helpful to have those not just sort of helplines, but also to have things about work and funding and benefits."*- SU 2. *"So I found that, like, an extra bonus on what, because you've all researched and found all this information out to put in the booklet. But you've also given so many other ways, like with the apps with different telephone numbers…"* – SU 3.

Coping strategies	All SU's enjoyed the section that gave them a range of coping strategies to use themselves. They reported finding in particular grounding strategies and breathing strategies helpful, but also wanted to see more practical and self-care suggestions included. *"there's relaxed breathing and coloured breathing. So there's two sort of different breathing exercises which is really good."* *"I wanted to see more about senses and oils. And like, [name] spoke about those bracelets you can get as well, I can't remember what they're called now."* – SU 1. *"Like, I like to have something on in the background and listen to something and when I'm feeling overwhelmed, I have like different smells and an aromatherapy diffuser. I also thought for other people, they can use a soft toy, or like a teddy bear or maybe a fleecy blanket or fidgety things as well. You have sight and like sound and smell and that's really good."* – SU 4.
How family members can help	Two SU's said they would like more information for their family members. *"I thought maybe there could be a bit for family you know. Like how to help someone with PTSD."* – SU 1. *"It might be helpful to even have a section just for family members, so they know what they can do to help you or can know signs and symptoms they need to be, need to be looking out for."* – SU 3.
Superordinate theme 3. Understanding PTSD.	
Psychoeducation around PTSD	All five SU's said it was important for them to understand the symptoms and the science behind why people get PTSD. *"just like, having the symptoms there explained to you. Like, I've never felt so understood. It's really hard to explain yourself to people and like say how you feel, but I was like oh my god, this is me, this is what I've got. I've never felt so understood in my life."* – SU 4.
Personal stories	Three SU's said it would helpful to have stories from other SU's who have either experienced PTSD or been through treatment.

	"I thought that it would be nice to have like, personal stories and quotes from people who have been through it, you know? Like showing that they got better and got through it." – SU 1 *"So I guess when you're in that sort of mindset, to look and, and have that information that maybe a couple of stories where people, you know, have gone through trauma and, you know, and they're happy to talk a little bit about their trauma, people can relate to that. At least they can see that other people have been through trauma, and they're not the only ones going through it."* – SU 2
Normalisation	All SU's spoke of the importance of knowing their reactions were normal and they are not alone in their experiences. *"But when you have that leaflet, it's it absolutely makes me think I'm not alone. I haven't gone wrong. And with your leaflet, it really made me live in the world. I'm living and dealing with it. Rather than shoving it away thinking it's weird. It made me realize this is normal for what I've been through. And it was just so great to know that there are people that know what you're talking about isn't weird, and they can help you."* – SU 3.
Superordinate theme 4. Practicalities.	
Formatting and accessibility	Four SU's said they would like the booklet to be accessible electronically or to have hyperlinks they can use to direct them to apps and videos, making it easier to access resources. *"It's good that there are videos so you can just go to YouTube and watch a video. Then you've got that sort of guidance, as opposed to just kind of doing doing it yourself. At least you have something to watch and that you're able to engage with."* -SU 2. *"You know, it's good to have it in the electronic version like on my email here, otherwise I tend to put things down and lose them or can't keep track of it all."* – SU 5.

Balancing the right amount of information	Two SU's spoke of not wanting to have too much information included within each section and commended pages that briefly summarised or touched upon the points, leaving it up to them to research further if they desired. *"I think, again, you know, when you're sort of mid treatment, or even after treatment, I think less is more. I think for that section, I think that's probably enough. Because as you go more and more into the booklet, it will then give you even more information. So just having that amount of information is probably just enough for someone to absorb."* – SU 2. *"You know, the way that everything was broken down and really simplified was so good. Like, it wasn't so much information crammed in one page. So it was easy to follow and like I can't, you know, I can't stay on a book for too long if it's too much."* – SU 4.

Phase Three

Themes from Birth Trauma interviews

Interviews with eight birth trauma SU's revealed five superordinate themes and 20 subordinate themes. The first theme involved the need to understand birth trauma, including normalising birth trauma, understanding the symptoms of postnatal PTSD, reducing self-blame through explaining the science behind PTSD, and recognising the wider systemic impact of birth trauma on partners, children and relationships. The interviews emphasised that general information about PTSD was not sufficient as mothers reported stigma around birth trauma, and found it hard to relate to.

The second superordinate theme was the need for information to help women overcome barriers to getting support, as many reported having negative online experiences where they would find no information, negative or misleading information about birth

trauma. Many said it would help them to engage if they could read about successful treatment stories and stories of others with postnatal PTSD. In addition, a theme arose of the need to educate others about birth trauma via a separate information pack for loved ones.

Wanting to know about the service's birth trauma pathway was the third superordinate theme. SU's wanted detail on what treatment entails, including length, group size, topics, and what would be discussed. SU's said it would be helpful to have information on staff within the service, but a theme arose of not finding it helpful to have information on service data, demographics and referrals.

The fourth theme was the need to learn strategies to help manage the waiting time. Sub-themes included grounding techniques, breathing exercises, suggestions of activities to distract themselves, resources to use (including books, apps and websites), and learning self-compassion. SU's said they would find it helpful for compassionate phrases to be included but that including more in-depth ideas from compassion-focused therapy would be too overwhelming at the start of their treatment.

The final theme related to the aesthetics and practicalities of the booklet. Sub-themes included balancing breadth and depth so the information is not overwhelming, the importance of not using real-life images, the need for electronic access and hyperlinks, and providing it at the right stage of treatment (post-assessment). The themes and quotes are illustrated in Table 4.

Table 4.

Themes from interviews with eight SU's from the birth trauma pathway

Superordinate theme 1. Understanding what Birth Trauma is.	
Subordinate theme	**Example quotes**

Normalising birth trauma and knowing we are not alone	All participants emphasised the importance of knowing that other women experience birth trauma and develop PTSD too. *"Just knowing that its normal and it can happen… And you know, it's nothing that you yourself have done. Because again, I think for a lot of the conversation in the room, when I was having my therapy in groups especially, It was a lot there was an element of shame or something."* – SU 3 *"Just really knowing that you're not, you know, the only one going through this and there are other people who, you know, have been through similar and come out the other side, kind of, responded the same way you have."* – SU 5
Symptoms of postnatal PTSD	All eight participants said that learning about the symptoms of PTSD helped them to understand what they were going through and said this would be important to include. *"I you know, I wasn't I was aware that for example, flashbacks were a thing with PTSD. I wasn't aware of my behaviour was was also part of that, that, you know, I have to play with situations that made me uncomfortable. So people in my family who had children who had easy births, people who breastfed, that was difficult for me to be around. And I didn't realise that that was part of having trauma."* -SU 3 *"So having an understanding of what that is, and the physical side effects from it, and mental side effects, as well, enables me to think 'Oh, actually, it was', like a lightbulb moment of actually, yeah, I am feeling all of those things, and physically feeling those things. But I struggled to make the link with trauma to start with…"* – SU 6
Reducing self-blame through science	All SU's reported finding it helpful to understand the science behind PTSD and how the brain processes trauma memories. This helped them to realise that it wasn't their fault. *"But I think it's quite helpful to know that, like, PTSD, if you're if you're in a traumatic situation, your brain doesn't act in a normal way, because it's just trying to protect you. So almost having that information in there straight away, I think could almost reassure women that, okay, like, my logical brain was taken out of that*

	situation, I was just protecting myself or my baby or whatever." – SU 2 *"Because it kind of put it more into like a science-y way which helped me kind of realise that it wasn't my fault and stuff. Yeah, putting it like more, having it all written down in a science kind of way."* – SU 7
General information on PTSD not sufficient	Four participants reported receiving information about PTSD in general which they found difficult to relate to their types of traumas. *"I think specific to birth trauma, just because when you look it up a lot of it's obviously about like soldiers and their trauma and some of its really unrelatable. And still online, I feel like it's really hard to find things about birth trauma, because I don't think it's as well-known as like other people's trauma."* – SU 1 *"But I remember when I was reading it, like there was mention of like veteran type trauma, which is what I've always thought of with PTSD and trauma. And so I just remember reading it and thinking, I don't need this. None of this applies. Because there was no mention of babies or children or any of that."* – SU 4
Recognising the wider systemic impact of birth trauma	Three SU's wanted to have more information on how birth trauma can affect how you bond with your baby. *"And so yeah, I definitely would say, to have it more relatable towards birth trauma. Especially like how it could affect your relationship with your baby because its hard to know what's normal and what's not."* – SU 1 *"And also it is so incredibly painful as a new mum to feel challenges bonding with your your baby. All across social media I was faced with women boasting how in love with their babies they were and I wish I had known what I was feeling was 'normal' I felt so alienated and I didn't discuss this with anyone. So if it could have something about the difficulties you can have bonding with your baby and that its normal…"* – SU 8 Three SU's also reported that it affected intimacy, their relationships with their partners and other family members. *"I know, for a lot of women, intimacy was an issue."* – SU 3.

	"But it's it's not just like an isolated, you know, you were in a car on your own and have an accident. It's very tied up with your family life and your partner and everything." – SU 5
Superordinate theme 2. Overcoming barriers to help-seeking.	
Negative experiences of looking for information online	Four SU's emphasised the importance of needing accurate and trustworthy information from the service, referring to experiences of not finding much information online, finding only negative outcomes or misinformation. *"So yeah, I definitely think that that would be something that could be included because it's hard to find anything positive out when you're looking and a lot of the time you stumble on like negative things or thing you don't want, like more experiences you'd rather avoid."* – SU 1 *"Because I feel like sometimes you can google things and they become a bit of a, you know, you find things that is offensive or misleading information. So just having like the right stuff in there has been really useful."* – SU 7
Increasing others awareness of birth trauma	Seven participants expressed the need for a separate resource for family and friends to increase their understanding of PTSD after birth trauma and what symptoms to look out for. Most reported that they did not know how to raise the topic with their loved ones or that they have received unsympathetic responses. *"I think it'd be so helpful to give something to your close friends or your partner. Because I think it's really, really hard for them to understand. And ultimately, they're not there in the course of learning about it. And it's really hard for you to then bring it all back and explain it also. So at least information about PTSD and why your partner might be behaving in a certain way and not to take it personally would be really helpful."* – SU 2 Seven participants also wanted practical tips and suggestions for how other people can help to support them, what it is helpful and unhelpful for them to say and do.

	"So my partner didn't really know anything about it. So kind of, like tips, tips for like partners or family for how to deal with you almost and like how to be like, sensitive to your feelings." – SU 1 Four participants expressed a need for their loved ones to also get support for themselves. *"Um, no I mean I think it's really good there just needs to be more emphasis on bringing husbands and partners in and making sure that they're ok too. You know, I know that for example, my husband found my birth extremely traumatic and he just said to me not that long ago, because we were talking about it, about his experience of my labour and everything and he said to me at one point, he said he was just shoved out of the room and there was blood everywhere and he thought to himself 'I'm just going to walk out of this hospital with no wife and no child'."* – SU 3 Although one participant reported that a resource focused on others would not have been helpful for her. *"What I'm trying to say is, I think maybe… it might make me sound awful no but maybe if I read that at the beginning, it would made me feel a bit angry, a bit like, 'Well, why why am I even thinking about them?' I know there's a bigger picture but I think I'd find that hard at the start."* – SU 6
Hearing from other SU's	Seven SU's reported wanting to hear about successful treatment stories from previous SU's, with many saying it would have helped them engage and given them hope. *"…maybe just that, once you've had the treatment after you've had your baby, that it is possible to get your life back really, because I think it's hard to imagine for some people that symptoms can fade, and you can learn to live with them and have coping strategies. And through the treatment, you can, like, learn how to live with it, and can get better from it. So even without having another baby, I think it just be nice for people to know that you can come out the other side after treatment."* – SU 1

	"And like you said, yes, if you had someone saying, you know, I was quite adverse to having the treatment that actually it has changed my life., I'd have read that and again, I'd have been more likely to not turn away and go, you know what, this, this isn't going to do anything. I can't, I can't see how this is going to help me." – SU 4 One suggested having small quotes from other SU's as opposed to a big story. And another said that they would like both the story and the quotes. *"So maybe just like little quotes and stuff from several people rather than one big story so you know you're not alone in it and there's other people going through it too."* – SU 7
Superordinate theme 3. Learning about the Birth Trauma Pathway.	
What to expect with treatment	Six SU's said it would be important to understand beforehand what treatment would look like, including different types of therapy, how long it takes, who you will be doing it with and what they would be expected to talk about. "*Because I've not ever experienced a mental health problem before. So I didn't really know anything. I've never had therapy and in the early days, I didn't really understand how it works or what we would be doing or how long for, or anything like that. So yeah, kind of having all set out, exactly like how the process is and the steps and what to expect."* – SU 7 *"I remember hearing that for the first time and didn't want to come back, I thought I can't possibly do that. How the hell am I meant to juggle my life for six to 12 weeks when I sort of didn't even really feel like I needed it. It gave me a quick out. If I'd have maybe had a leaflet that had given me that time frame, I could have been planned for that and thought about well, if I go for this, I've got this in place, in terms of childcare*." – SU 4. Although, one SU said that knowing the duration of treatment beforehand would have felt overwhelming and been a barrier for her. *"I think maybe, if I'd known how long the treatment would have lasted that may have been a bit daunting for me. And maybe I wouldn't have been as open to it as I was, to the fact that I didn't realise it was going*

	to be six months' worth of treatment and that meant I just kept rolling with it, if that makes sense." – SU 6. Four SU's also suggested adding in information about the emotional impact of treatment and knowing that it is normal to experience bumps along the way. *"Before I started with therapy, I actually didn't realise like how up and down I would feel after the sessions. So I think definitely making people aware that like, especially initially like the day after you have your session that you do, you can feel really down and emotional. And that is normal."* – SU 1.
Getting to know staff members	Six SU's said it would have reduced their anxiety and helped to know about the different staff members within the service before they start treatment. *"Yeah, a bit, it would be quite nice actually if you had some pictures and just like, yeah, their titles and stuff. Just so that, you know, when you're speaking to someone on the phone, you can kind of look at their picture or when you do start, like, for me, it was okay, because we did the group therapy, and then I actually got one of the therapists from there for my one-to-one, but I know some of the mums are getting a new person. So I think it would be nice to have somewhere where we can go, 'Okay, well, that's who I'm going to go meet' and this is their credentials."* – SU 8.
Service demographics are not helpful	Four individuals said that they would not like to receive demographic information about SU's who are referred to the service and reported they would either skip the section or negatively compare themselves to others. *"I don't know. From my point of view, if I'd have read the booklet and seen demographics on the types of experiences women had had I don't know if that would make me feel worse. Like, knowing others have lost a baby or it has had a disability, I don't know, it would probably make me feel a little bit like, 'Oh, my gosh, I haven't gone through that and I'm feeling awful' and it might make me feel a little bit like I'm being a bit over the top compared to other people's experiences so maybe not about the types of experiences. Yeah, that's probably my overthinking mind but yeah."* – SU 2.

	"if I've got a really full booklet of lots of things that I feel like would really directly helping then this other demographic stuff probably wouldn't be as much help. I'd probably skip that section." – SU 5. Whereas one individual said that it could be helpful but only if it covers a wide demographic of trauma types and backgrounds. *"I mean, I think it could be because it can offer people comfort, especially if the demographic is wide. For people who's not just you know, it's not just one kind of person that's coming…"* – SU 3.
Superordinate theme 4. Strategies to help manage the long wait.	
Grounding techniques	Seven SU's said it would be helpful to include grounding techniques to help them manage flashbacks, including using different senses and stimulus discrimination to bring themselves back to the present moment. *"Yeah, that was one of the things as well actually, like so when having a thought about whatever is distinguishing where you were, what's different from what's around you now to work what's, what was going on at the time that that was happening."* – SU 5. *"Just having those sort of like grounding and techniques before you actually go into like, because then when you go to therapy, obviously, you're going deep into things of having to bring things up. But that wait, you're just waiting and waiting and getting more anxious and actually having the techniques beforehand to at least help you deal with those so that when you get to therapy, you can then you know, like, dig into the problems."* – SU 8.
Breathing exercises	Six SU's wanted breathing exercises to be included, saying it helped to calm them down. They said they would like structured breathing techniques as deep breathing has not been helpful. *"Yeah, the one that I found really helpful was how you can regulate your breathing. So instead of when people say, you know, take deep breaths, instead of that, actually, I think they actually showed us a video about how to breathe at a time and replicate that on the breath out and keep going, that really calms you down. And that really helped me."* – SU 2

Exercise and activity suggestions	Four SU's said that having a list of suggested activities they could do to help them relax, get some exercise and take care of themselves would help them to feel less stuck. *"But I like sort of gentle stretching, like yoga and things I find that really useful to help my breathing. And really, like any sort of self-care activities; going outside to walk, talking to people, I don't know, like, I because yeah, when you get into that sort of stage where you're waiting, and you don't know what to do, but you're having these symptoms, it just feels so stuck."* – SU 8. In addition, two SU's said they would like some suggestions of exercises they can do with their babies to help them bond with them. *"But yeah, actually, maybe if it had stuff you can do with your baby, like using the baby as the senses maybe that would be more helpful because particularly if you have a young baby, you can't really get away from them at that point."* – SU 2.
Learning self-compassion	Four SU's endorsed the idea of having positive or compassionate phrases helpful to change the way they talk to themselves. *"So a couple of examples of positive affirmation as well might be really useful for women to read, because you'd almost instantly sort of reflected to yourself.. That's your reading about you. So if you had a few examples of positive affirmations and then they can read through it and they've done it by just reading through it."* – SU 4. Five SU's said it would be important for the booklet to be written in a compassionate way, with reminders being given throughout about being kind to yourself. *"And I suppose if that were laid out, like, in a not to hate yourself as a mum, not to be shaming yourself as a mum, to almost like praise a mother for reading the booklet maybe like to be really like, you know, you've taken that step to get here to read this. And it's, I think, every reference that was made to me about you know, you can't pour from us as a mum, you can't give your best to your children if your you're asked to put the face mask on yourself first, like taking this step for this*

	treatment, is giving yourself that oxygen to live, because you can't give to your kids." – SU 4. One SU additionally suggested introducing compassionate imagery. *"it's kind of like, it's almost like, a made up things if that that made sense. So who, who's important to me? And what's important to me, it's all kind of rolled into one and she asked me, what does that look like? And then we came up with this image in mind of what I need and what helps me, and I just had this image come to my mind, and then instantly, I have that calm feeling."* – SU 6. Whereas, another SU said that it would be difficult to engage with too many compassion-focused ideas before starting treatment. *"I think, yeah, I guess it's helpful to have, but realistically, I, I would say that most people aren't capable of doing that until they've had more treatment. It's really just something that you need to have explained because I think if it was in the booklet, you'd just read over it and think 'Oh, yeah, I should probably be more compassionate with myself' but really, you don't know what it means or how to do that until you have more help, I suppose."* – SU 2.
Accessing help and resources through different means	All eight SU's said that it would be important to have a range of resources and all endorsed including websites, charities, books, apps and helplines. *"Resources are always great. They don't take much time to read that there's a lot of information behind each link isn't. I suppose adding in as much as you can, in a way of it not overcrowding the page. Okay. Maybe like a bit of everything…"* – SU 4.
Superordinate theme 5. Aesthetics and practicalities of delivering the booklet.	
Balancing the breadth and depth of information	Two SU's said they would like as much information as possible to be included in the booklet to help their understanding. *"I mean, to be honest, I'm someone who likes information. So I think if it fits in it that would be great. I think it's always useful to have as much information on a service and everything as possible because you can get them a well-rounded idea of what you're entering into by going into the therapy ... Yeah, and laying it all out there open and honest*

	and it's really transparent. So expectations are correct. I think anything like that is always really useful." – SU 4 Whereas, five spoke about time constraints with juggling a baby and struggling to read big chunks of information. They said they would prefer a range of different ideas to be briefly touched upon in the booklet, giving them the option to look up more detail if needed or go more in-depth once they have started treatment. *"And I was, I guess I would probably be put off if it was like, really, really loads, because it would just be an awful lot to take on board, like in terms of the initial one. So maybe just a few pages. The first one should be just like an overview and touch upon things briefly and then you get more information and more of the weighty bits when you're in the group."* – SU 2. Two SU's said they would not want to hear too much detail about other people's traumatic experiences. *"It might also be me but they said in group therapy about possibly sharing our birth stories. And I think I would just be comparing myself to other people's stories. So I'd probably be the same with the information. If it's someone's big story in the booklet or its worse than mine, I'd be comparing my mental health problems to this kind of thing and thinking I should cope a bit better."* – SU 7. Finally, one SU said that they would only want a brief overview of treatment. *"So other than stage of the treatment, a lot of the treatment was going through what actually happened, but there was a part I did have to record myself saying it. And I think that would have, I would have, that would have put me off quite a lot if I knew that at the beginning before I started treatment."* – SU 6.
The importance of not using real-life images	Seven SU's spoke of how real-life images could be triggering for them, and that they would prefer more neutral animations, symbols and diagrams instead. *"I'd probably say symbols and animations because I think at the beginning, you're in such a negative frame of mind or state that if you've got images of happier people and things, it would almost make*

	me feel quite angry. Or if it was a baby, I would personally, I don't think that would help either. Yeah, I think maybe symbols and animations, as opposed to real people." – SU 6.
Hyperlinks and electronic access	While all eight SU's said they would prefer a physical paper copy of the booklet, they all said it would be good to have an electronic version in addition in case it got lost. *"I'd always have a paper version. But I'd also always have an electronic version. I just think in this day and age, you know, sometimes papers helpful. I mean, I keep old papers and stuff, but you know, an app or a PDF resource, or even a little website or portal is helpful too."* – SU 3. Three SU also said they would like the booklet to have active hyperlinks, so they could click on it and be directed straight to the resource. *"So whether if you're using up pages to put stuff with that might not be as useful but if they were interested in that then maybe they can go straight to a link or something. If they were if that was something they particularly were interested in, then maybe that might be better."* – SU 5.
Providing information at the right stage of treatment	Five individuals said they would like to receive the booklet after the assessment so they know what to expect in treatment, can learn more about birth trauma and can manage their wait. *"So I guess then, yeah, so I would assume then, if they are assessed, and they find out they have PTSD, then to be able to take away from information would be really helpful…So thinking about what's going to happen now, I'm not going to have anyone because I'll go to the bottom of the waiting list. So to be able to leave with more information about what you're then going into the next stage, which would be very helpful."* – SU 2. Two SU's said they would have found it helpful to have the booklet before their initial assessment to help them manage their anxiety. *"Maybe before your initial assessment, because then you do kind of attend the appointment a bit naive and a bit, for me anyway, I felt*

	unsure of whether I was doing the right thing, and if I necessarily needed it." – SU 6. On the other hand, one SU reported that they would have preferred to have the information during treatment as it would have been too overwhelming beforehand. *"I would say, during treatment, I think if I'd have got it all before, I think I'd have found it really overwhelming. Yeah, I think obviously, I think I would have just found it really overwhelming. So like as its being taught, and, and also like going to treatment at the same time as receiving I think, yeah, I just think would be helpful."* – SU 1.

Phases Four and Five

Two booklets were designed; one for the birth trauma SU's, and one for friends and family for the fourth phase (See Appendix R and S). The themes above were used to inform the content of the booklets, and service users were involved in making it. Additionally, staff from the service checked over the factual information. The fifth phase will be completed by the service beyond the scope of this project, where the booklet will be piloted for 18-months, compared to the baseline data and continually improved with SU feedback via a questionnaire designed for this study (see Appendix L and Q).

Discussion

This project aimed to evaluate the information currently given by the birth trauma service, gather recommendations for improvement, and create an information source to pilot and evaluate within the service. SU's were neither satisfied nor dissatisfied with the current information they received, how it was presented, the amount given, its ability to help them understand the treatment pathway, understand what birth trauma is, learn coping strategies, and help them engage. SU's disagreed that the information was given at the right time but agreed that it was clear, easy to read, and strongly agreed that they would recommend the

service overall. Routinely collected satisfaction data showed that SU's rated different aspects of their treatment between good and excellent, with the exception of getting help quickly, which on average fell in the 'fair/ neither agree nor disagree' category. This may be linked to SU's reporting not receiving information about birth trauma at the right time, before treatment. Furthermore, data showed that three SU's dropped out of treatment around the assessment phase, and 22 sessions were not attended over an 18-month period. After the booklet pilot is complete, this data will be compared pre and post.

With regard to information that SU's would like to receive from the birth trauma pathway, five superordinate and 20 subordinate themes arose from the interviews. Superordinate themes included the importance of information to understand what birth trauma is, overcome barriers to help-seeking, learn about the treatment pathway, have strategies to manage the wait, and the importance of the aesthetics and practicalities of the booklet.

Aligning with a previous study on birth trauma, emphasis was placed on the need to understand postnatal PTSD specifically and normalise birth as a traumatic event (Peeler et al., 2018). The cognitive theory of PTSD posits that shifting the negative appraisals associated with a traumatic event can help to reduce symptoms, and research suggests that reducing stigma, self-blame, and increasing people's understanding of PTSD can aid this (Ehlers & Clark, 2000; Wessely et al., 2008). Furthermore, several themes supported the health belief model of help-seeking (Becker, 1974). Themes of increasing others' awareness map onto the idea of reducing perceived barriers, and subsequently, having loved ones supporting the treatment process could provide a prompt for action to engage in treatment. Themes of hearing stories from others about the positive impact of treatment, and knowing what to expect align with the importance of there being perceived benefits to engaging, and the inclusion of coping strategies to manage symptoms within the booklet supports the idea of

increasing the individual's sense of self-efficacy to improve engagement. These factors are important as many women report feeling stigmatised and finding it difficult to seek help following birth trauma (Moore et al., 2016).

Given that there are usually multiple individuals involved in raising a child, it is unsurprising that one of the subordinate themes identified the need for information to recognise the systemic impact of birth trauma. Existing research highlights that relationships between the parents, external family members, and bonding with the baby can all be affected by birth trauma (Watson et al., 2021). The importance of mother-child bonding and the development of a secure attachment style is emphasised as key to an individual's development and lifelong health outcomes (Ainsworth & Bowlby, 1991).

Mapping onto NICE guidelines for PTSD, SU's wanted more information about treatment and where else to access support. A theme arose of wanting to know staff members but not wanting to see demographics or referral information, as women reported that they would negatively compare themselves to others or would feel more alone if they overestimated the referral numbers. Complimenting recent research into treatment programs for birth trauma, SU's reported wanting to learn coping strategies, including grounding techniques, breathing strategies and distraction ideas to help manage their symptoms (Roberts et al., 2021). Although differing from information desired for other forms of PTSD, which focus more on the individual (Herbert, 2002; Watts et al., 2016), women in this study wanted to include their partners and babies in activities to help improve their relationships.

Limitations and future research

These findings cannot be generalised to other SU's with postnatal PTSD due to the small sample size, representativeness of the SU's and service-specific context. Only eight SU's were interviewed from the birth trauma pathway and all had healthy babies, were white

British, and in relationships. Further research is needed to determine the needs of SU's from different ethnicities, gender identities, classes, relationship statuses and birth trauma experiences (e.g. those who have lost their babies or whose child suffered a disability).

As participants were recruited by their clinicians asking them if they would like to take part, this may have introduced selection bias, with clinicians potentially only asking clients who they thought would say yes, or who had had positive experiences with the service. This also meant that clinicians were less likely to contact service users who had dropped out of treatment and this may be reflected in the fact that the current sample does not include any individuals who had dropped out and includes a majority of people who have finished treatment. Hearing from those who had dropped out of the service could have provided further insights into information needs, satisfaction and engagement. Additionally, it would have been beneficial to hear from participants at earlier stages, for example, those who had just had an assessment as they would have been able to report on what they felt they needed now, which could reduce recall bias and forgetting associated with retrospective reporting.

Participants in this study reported receiving differing information and at varying time-points with some given a booklet on complex PTSD at assessment, and others only having handouts of therapeutic skills once in treatment. This may have led to participants reporting on different experiences, and providing different recommendations and ratings. The interview questions for both the complex PTSD and birth trauma pathways were developed in collaboration with staff in the service which may have influenced the type of questions being asked. It may have resulted in the questions being more specific, guided by clinician perspectives and less open-ended than if SU's had helped develop the interview schedules. Furthermore, the results of the thematic analyses are similar to the questions that were asked, for example, one question asked what birth trauma SU's thought of having information for

friends and family members, and one of the themes that arose was ‘increasing others awareness’. The phrasing of the questions may have biased the findings. Nevertheless, the birth trauma interview schedule was developed from the themes that arose in the complex PTSD interviews and, therefore, involved SU’s. Furthermore, open-ended questions were asked before more specific suggestions were provided and this approach was chosen to help SU’s who may not have received any information.

Several of the quantitative data points had already reached ceiling effects, limiting the change scores when this data is compared post-pilot. The quantitative findings should be interpreted with caution as there was missing data and no database recording drop-outs or sessions not attended, meaning that data had to be retrieved manually. Furthermore, statistical analyses cannot be conducted to compare pre and post data due to the small sample size.

Finally, thematic analysis was used to determine themes relating to SU’s views and opinions. This method of analysis groups findings into wider themes which may miss out on more specific comments or wording. Nevertheless, while content analysis could have captured smaller details, it misses contextual information and would have led to a large number of codes which would have been unmanageable within the time constraints of this project.

Service Recommendations

Based on the findings from this project, the following recommendations were made to the service:

- To pilot the booklet developed over the span of 18-months with birth trauma SU's and gather feedback using the information questionnaire developed (Appendix L and Q) to continually improve the booklet.
- To compare baseline data from this study (drop-outs, DNA's, routine outcome measures, satisfaction data) to data gathered after an 18-month pilot of the booklet.
- To create a database to track and routinely record dropouts and sessions not attended.
- To ensure service satisfaction data is routinely collected and improve the quality of this data. This could be added to the existing outcome measures pack.
- To assess the information needs of mothers with different birth traumas, such as those who have lost their babies or whose babies have disabilities, and create a separate booklet for them if indicated.
- To gather feedback about the information needs of mothers from diverse backgrounds as all the mothers in this study were in relationships and white British.
- To ensure that any additional information provided by the service maps onto the themes outlined in this study.

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Theoretically Driven Research Project

The Role of Mental Defeat in Interpersonal and Non-Interpersonal Traumas

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Abstract

The aim of this study was to explore the role of current appraisals of mental defeat in interpersonal versus non-interpersonal traumas. A cross-sectional design was employed, where 164 participants, 104 with interpersonal and 60 with non-interpersonal traumas completed measures on type of traumas, PTSD severity and appraisals of mental defeat. The main findings revealed that having experienced interpersonal traumas was associated with significantly higher scores of mental defeat than having experienced non-interpersonal traumas when accounting for sex, number of trauma types and time since trauma. Secondary analyses revealed that interpersonal traumas were associated with more severe PTSD symptoms compared to non-interpersonal traumas via mental defeat as a mediator. Overall, current appraisals of mental defeat appear to play an important role in PTSD, particularly following interpersonal traumas. However, additional research is needed to explore the mechanisms by which cumulative trauma exposure increases PTSD severity.

Key Words: PTSD, trauma, mental defeat, interpersonal, non-interpersonal

Introduction

While 54.0 to 73.8% of the global population experience a traumatic event in their lifetime, it is estimated that only 1.3 to 8.8% develop Post-Traumatic Stress Disorder (PTSD) (Atwoli et al., 2015). PTSD is a psychological disorder characterised by symptoms of re-experiencing, hyper-arousal, avoidance, and negative alterations of mood and cognition (American Psychiatric Association, 2013). PTSD has been shown to reduce an individual's quality of life (Schnurr et al., 2006), as well as increase the risk of comorbid mental health difficulties (Brady et al., 2000), physical health problems (Pacella et al., 2013), suicide and early death (Gradus et al., 2010). While the impact of PTSD on an individual's well-being is well-established, questions remain as to why some people experience PTSD or more severe symptoms following a trauma whilst others do not.

The cognitive theory of PTSD highlights several key factors in the development and maintenance of PTSD (Ehlers & Clark, 2000). It suggests that the characteristics of the traumatic event(s) affect the way it is processed in the brain. Subsequently, these factors change the nature of the trauma memory and influence how the individual appraises the trauma and its impact on them, which leads to a current sense of threat and PTSD symptoms. In response to this perceived threat, individuals use maladaptive coping strategies which maintain PTSD by preventing the memories and cognitive appraisals from being updated.

An important trauma characteristic which has been shown to increase the risk of developing PTSD is whether the event was interpersonal (purposefully caused by another person), for example, a physical or sexual assault (Walsh et al., 2017). Across the lifespan, individuals who have experienced interpersonal traumas have been shown to be at an increased risk of developing PTSD and more severe symptoms, compared to those who have experienced non-interpersonal traumas, for example, accidents or injuries (Alisic et al., 2014;

Breslau, 2001; Cromer & Smyth, 2010; David Forbes et al., 2012; Forbes et al., 2014; Kessler et al., 2017; Luthra et al., 2009; Resnick et al., 1993). Aligning with the cognitive model, the greater severity of PTSD in interpersonal traumas may be explained by the presence of more negative post-traumatic cognitions. One study found that in individuals with PTSD, intimate partner violence was significantly associated with negative beliefs about the self, whereas motor accidents were associated with negative beliefs about the world and self-blame (Beck et al., 2015). Furthermore, interpersonal traumas have been associated with greater cognitions linked to anger and disgust than non-interpersonal traumas (Badour et al., 2011).

Betrayal trauma theory (BTT) may help to explain the differences in appraisals between trauma types. BTT posits that interpersonal traumas can often be caused by someone in close proximity to the individual such as a friend, family member, partner or professional (Freyd, 1996). When a trauma is purposefully caused by someone close, this leads to a violation of trust and sense of betrayal. However, in order to preserve this relationship and the support it provides, individuals are more likely to dissociate during interpersonal traumatic events (Giesbrecht & Merckelbach, 2009). Dissociation disrupts the cognitive processing of the trauma, affecting both the nature of the trauma memories and the individual's negative appraisals of themselves, others and the world (Ehlers & Clark, 2000). Relationships and being around other people may additionally serve as a constant reminder of the traumatic event, triggering re-experiencing symptoms and negative appraisals and increasing the severity of PTSD symptoms for interpersonal traumas.

An additional characteristic which has been shown to impact the risk of developing PTSD is the number of traumas experienced. A dose-response effect has been shown whereby PTSD severity increases as the number of traumas increase (Breslau et al., 1999; Harvey et al., 2016; Herman, 1992; Kessler et al., 2017; Kolassa et al., 2010; Suliman et al.,

2009). While there is a cumulative impact of number of traumas for both trauma types, multiple interpersonal traumas appear to lead to a greater PTSD severity compared to multiple non-interpersonal traumas (Cromer & Smyth, 2010; Green et al., 2000). A large epidemiological study by the World Health Organisation replicated these findings and suggested that the experience of an interpersonal trauma may lead to a generalised vulnerability whereby the risk of PTSD increases significantly following a subsequent trauma compared to the experience of non-interpersonal traumas (Liu et al., 2017).

The cognitive model of PTSD, alongside other leading theories, would suggest that this generalised vulnerability for interpersonal traumas is influenced by increased negative appraisals (Ehlers & Clark, 2000; Foa, 1993; Foa & Rothbaum, 2001; Janoff-Bulman, 1989; Resick & Schnicke, 1992). One study found that the greater the number of interpersonal traumas, the greater the negative post-traumatic cognitions about the self, world and self-blame (Cromer & Smyth, 2010). On the other hand, there was no significant change in self-blame as the number of non-interpersonal traumas increased. A study of incarcerated women also found that cumulative interpersonal traumas, and not cumulative non-interpersonal traumas, were associated with cognitions linked to guilt and shame (Baker et al., 2021). Collectively, these findings suggest there is a greater increase in negative appraisals linked to the self as the number of interpersonal traumas increase.

Appraisals of mental defeat have been shown to be prevalent in individuals with PTSD. However, so far, research within PTSD has mainly focused on peri-traumatic mental defeat. Peri-traumatic mental defeat refers to thoughts of worthlessness, lack of autonomy, and dehumanisation experienced during the trauma (Dunmore et al., 2001). Peri-traumatic mental defeat has been linked to PTSD severity, with studies showing that these appraisals are present in individuals who have experienced assaults, and are significantly higher in

individuals who have a diagnosis of PTSD than those without (Dunmore et al., 1997, 1999, 2001; Wilker et al., 2017).

Fewer studies on PTSD have explored the more generalised appraisals of mental defeat that individuals may experience following their traumatic experience(s). The most widely used conceptualisation of generalised defeat stems from studies by Gilbert and Allan who define it as individuals' appraisals of powerlessness, hopelessness, and having lost their social status and sense of identity (Gilbert & Allan, 1998). While originally explored in relation to depression and suicidality, this concept and developed measure have also been applied to anxiety and PTSD research in recent years (Gilbert et al., 2002; Taylor et al., 2011). Furthermore, the scale developed by Gilbert and Allan has been adapted and developed into a more specific measure for mental defeat in relation to chronic pain (Tang et al., 2007). The limited studies on PTSD that examine general appraisals of mental defeat show that it increases PTSD severity for any trauma (Troop & Hiskey, 2013), and leads to higher levels of suicidal ideation (Maria et al., 2012; Panagioti et al., 2012). While one study found that generalised mental defeat and suicidality were higher following physical or sexual abuse compared to car accidents (Panagioti et al., 2015), it remains unknown whether this finding generalises to interpersonal versus non-interpersonal traumas. Furthermore, this study did not account for confounding factors.

Variables including sex and time since trauma have been shown to affect PTSD severity and influence cognitive appraisals. Females have been shown to experience more interpersonal trauma than males and also to develop more severe symptoms of PTSD in general (Berenz et al., 2017; Breslau et al., 1997; Cromer & Smyth, 2010; Moser et al., 2007; Olff et al., 2007). Additionally, men appear to report more negative cognitions of self-perception and self-blame following a non-interpersonal trauma than females (Herta et al., 2017), whereas females with PTSD report higher perceptions of threat and loss of control

(Olff et al., 2007). Furthermore, negative appraisals have also been found to increase as the time since the trauma increases (Elsesser & Sartory, 2007), and this finding is significantly more apparent for men than women (Herta et al., 2017).

To our knowledge, no study has examined the role of general appraisals of mental defeat in interpersonal versus non-interpersonal traumas. This study aimed to explore the impact of type of traumas on general appraisals of mental defeat to build upon the existing literature, and help guide clinicians as to important trauma characteristics and appraisals to assess in therapy. Addressing these appraisals could help improve treatment outcomes for PTSD. The use of the term 'mental defeat' in this study refers to Gilbert and Allan's conceptualisation of generalised defeat as described above (Gilbert & Allan, 1998). The primary aim of this study was to compare mental defeat in a sample of individuals with interpersonal trauma to those who have experienced non-interpersonal trauma, accounting for sex, number of trauma types and time since trauma. The secondary aim was to look at whether mental defeat mediated the relationship between the type of trauma (interpersonal vs non-interpersonal) and PTSD severity.

Hypotheses

Primary hypothesis

Hypothesis 1. Individuals exposed to non-interpersonal traumas will experience lower levels of mental defeat than individuals exposed to interpersonal traumas.

Secondary hypothesis

Hypothesis 2. Mental defeat will mediate the relationship between type of trauma (interpersonal versus non-interpersonal) and PTSD symptom severity.

Methods

Design

A cross-sectional survey with a between-groups design was deployed online using Qualtrics. Data collection took place between November 2021 and June 2022. In the primary investigation, the Independent Variable (IV) was the type of trauma (interpersonal versus non-interpersonal), and the Dependent Variable (DV) was mental defeat score. In the second analysis, the IV was trauma type, the mediator was mental defeat score, and the DV was PTSD score.

Ethics

Ethical approval was obtained from the Health Research Authority and study sponsorship was provided by Oxford Health NHS Foundation Trust (IRAS project ID 293056; Appendix V). Participants were provided with an information sheet, given the opportunity to ask questions, and needed to provide written informed consent to take part (Appendix W and X). A debrief form detailing the study aims and sources of support was provided at the end (Appendix Y).

Participants

Participants were recruited from both NHS services and the general population. NHS participants were recruited from Oxford Health NHS Foundation Trust via clinicians and the study poster. Berkshire Healthcare NHS Foundation Trust and Oxford University Hospitals were Participant Identification Centres; identifying suitable participants and providing the information sheet. Community participants were recruited through advertisements on social media platforms (Twitter, Facebook), mental health charities and online forums (e.g. PTSD UK, ICU Steps, MyPTSD).

Eligibility

Participants were eligible if they reported a traumatic event on the trauma life events checklist, met the clinical cut-off for PTSD as per the post-traumatic checklist for DSM-5 measure, and had experienced either interpersonal or non-interpersonal traumas, but not both. See measures below. Participants had to be over 18-years-old and needed to read English and consent to take part.

Procedure

Participants clicked on the link provided in the study poster, information sheet or social media advertisement and read the information sheet and consent form. After providing consent, participants answered eligibility questions where they were presented with a list of trauma types pre-categorised into interpersonal or non-interpersonal from the life events checklist (described below) and asked to indicate if they had experienced interpersonal traumas only, non-interpersonal traumas only or both types. If participants said they had experienced both, they were told they were not eligible and directed to the debrief form. Participants who reported only one trauma type (interpersonal/non-interpersonal) completed a measure of PTSD severity to ensure they met clinical cut-off. Participants then completed a checklist of trauma experiences, rated their appraisals of mental defeat, and provided demographic information. The final screen showed the debrief form.

Measures

Traumatic experiences

The Lifetime events checklist for the DSM-5 was used; LEC-5 (Weathers et al., 2013). This scale comprises of 17 items detailing traumatic events. There is no standardised scoring for this questionnaire as it is used to assess the presence of a traumatic event. Participants were asked to report the number of periods in their life they had experienced the traumas, the duration of events and the date of their last trauma to determine the most

cumulative trauma and calculate the months since the most recent event. Participants were asked to specify if there were any other traumas they had experienced which were not included in the checklist, provide a brief summary of the event, whether it was purposefully caused by another person, the number of periods of their life they experienced it within, the duration and the date of the last event. The number of trauma types was defined as the number of different trauma types endorsed on the checklist, consistent with recommendations from previous studies (Wilker et al., 2015).

PTSD symptoms

The PTSD checklist for DSM-5 (PCL-5) was used to assess PTSD symptom severity. (Weathers et al., 2013) The PCL-5 is a 20-item measure, asking participants to rate symptom severity over the past month on a Likert scale of 0 (not at all) to 4 (extremely) with a maximum score of 80. The PCL-5 has shown strong internal consistency (α=.94), test-retest reliability (r=.82), and convergent (r=.74 to .85) and discriminant (r=.31 to .60) validity (Blevins et al., 2015). A cut-off score of 33 or more indicated that the individual had clinically significant symptoms of PTSD and were eligible for the study (Weathers et al., 2013).

Mental defeat

The Defeat Scale was used to measure general appraisals of mental defeat over the last seven days (Gilbert & Allan, 1998). This measure comprises of 16-items scored on a 5-point Likert scale, with 0 indicating 'never' and 4 indicating 'always'. The maximum score is 64, and higher scores indicate higher levels of mental defeat. The measure has shown excellent internal consistency (α=.94), and test-retest reliability (r=.82) in PTSD (Panagioti et al., 2015).

Demographics

Demographic questions were included at the end of the survey to account for confounding variables and understand the representativeness of the sample. Participants were asked for their age, sex and ethnicity.

Service user involvement

Three service users with PTSD from local public involvement groups looked over study materials and provided input on where to advertise the study in the community prior to ethical approval. They ensured the questionnaires made sense, were not distressing, and instructions were easy to understand.

Power analysis

Prior research showed that an effect size of 0.69 (f value) is adequate to detect a significant difference in mental defeat between two groups of people with and without PTSD (Panagioti et al., 2012a). For the primary outcome, a power calculation for a multiple variable linear regression with one categorical IV (interpersonal versus non-interpersonal trauma) and three covariates (time since trauma, number of traumas, sex) assuming a significance level of 0.05, and 80% power, showed a sample size of 120 would be required.

Data cleaning and categorisation

The data was reviewed prior to analysis. Participants who had not completed the LEC-5 or defeat scale were removed due to missing data. The researcher reviewed the trauma types that participants had endorsed on the LEC-5 to ensure that all events were either interpersonal or non-interpersonal. Consistent with previous studies, items 1,2,3,4,5,12,13 or 15 were a-priori determined to be non-interpersonal traumas, and 6,7,8,9,10,11,14 or 16 were interpersonal traumas (Walsh et al., 2017). Participants who had scored items in both categories were removed. The research team examined any qualitative responses recorded as 'other' and categorised them based on whether participants had said ‘yes’ to indicate they

were purposefully caused by another person. The number of items endorsed on the LEC-5 were then added up to provide a count of the number of different trauma types. The date of the most recent traumatic event was subtracted from the date of survey completion to calculate months since trauma.

Data Analysis

Independent samples t-tests were used to examine differences between groups in key demographics where the outcome was continuous (e.g. age), and chi-square where the outcome was categorical (e.g. sex). Model assumptions were tested prior to analyses, including linearity, multicollinearity, homoscedasticity, normal distribution, and inspection for outliers (Field, 2013).

Individuals exposed to non-interpersonal traumas will experience lower levels of mental defeat than individuals exposed to interpersonal traumas (H_1)

The data was found to violate the assumption of homogeneity of regression slopes and; therefore, an ANCOVA was not deemed appropriate, and a multiple variable linear regression was performed (Miller & Chapman, 2001). Trauma type was the IV, mental defeat score was the DV and sex, number of trauma types and time since trauma were covariates.

Mental defeat will mediate the relationship between type of trauma (interpersonal versus non-interpersonal) and PTSD symptom severity (H_2)

Baron and Kenny's method of mediation analysis was used to conduct multiple linear regressions (Baron & Kenny, 1986). First, trauma type (interpersonal versus non-interpersonal) was regressed on PTSD symptom severity, and then trauma type on mental defeat second. Third, a regression of trauma type and mental defeat on PTSD severity was conducted. Mediation was met when the IV's effect on the DV reduced or was no longer

significant when the mediator was controlled for. Stata (version 17) and IBM SPSS (version 27) were used, and a p-value <0.05 was considered statistically significant for all analyses.

Results

Sample characteristics

The analysis included 164 participants, with 104 who had experienced interpersonal and 60 who had experienced non-interpersonal traumas. Twenty-eight participants were recruited from NHS services, with 21 (20.19%) in the interpersonal and seven (11.67%) in the non-interpersonal groups. The remaining participants were from the community. An additional 551 participants commenced the study but were excluded; 49 scored less than 33 on the PCL-5, 395 reported both traumas, and 107 participants only completed the PCL-5. There were no significant differences in PTSD scores between completers and non-completers ($t(269)=-1.87$, $p=0.06$); no other data was available to compare.

Descriptive statistics for the clinical and demographic characteristics of the participants are presented in Table 1. Overall, the sample was primarily female (n=140, 85.4%), white (n=152, 92.7%), and had an average age of 36.8 (SD=11.5). Participants scored on average 54.4 (SD=12.1) on the PCL-5, and 40.7 (SD=13.4) on the defeat scale. The mean number of trauma types on the LEC-5 was 2.59 (SD=1.53) and the mean time since trauma was 88.3 months (SD=119). There were no significant differences between group and age ($t(162)=-0.49$, $p=0.62$), or group and sex (X^2 (2,164) =1.33, $p=0.51$). There were significant differences in time since trauma ($t(161)=4.07$, $p<0.001$), number of trauma types ($t(164)=4.58$, $p<0.001$), and PTSD severity ($t(162)=3.68$, $p<0.001$), with interpersonal scoring higher. Due to low numbers across categories, differences in ethnicity could not be examined statistically. See Table 2 for a breakdown of mental defeat and PTSD scores per the most cumulative/typical trauma event.

Table 1.

Characteristics of the total sample, interpersonal and non-interpersonal trauma groups

	Total sample	**Interpersonal traumas**	**Non-interpersonal traumas**
N (%)	164 (100)	104 (63.41)	60 (36.59)
Age			
Mean (SD)	36.8 (11.5)	36.5 (11.9)	37.4 (10.7)
Median [Min, Max]	36.0 [18.0, 64.0]	33.0 [18.0, 64.0]	36.5 [19.0, 58.0]
Sex			
Female N(%)	140 (85.4)	89 (85.6)	51 (85.0)
Male N(%)	22 (13.4)	13 (12.5)	9 (15.0)
Other N(%)	2 (1.2)	2 (1.9)	0 (0)
Ethnicity			
White N(%)	152 (92.7)	98 (94.2)	54 (90.0)
Asian N(%)	4 (2.4)	2 (1.9)	2 (3.3)
Black, African, Caribbean N(%)	2 (1.2)	0 (0)	2 (3.3)
Mixed or Multiple ethnic groups N(%)	6 (3.7)	4 (3.8)	2 (3.3)
PTSD severity			
Mean (SD)	54.4 (12.1)	57.0 (12.0)	50.0 (11.1)
Median [Min, Max]	55.0 [33.0, 80.0]	59.5 [33.0, 80.0]	48.0 [33.0, 75.0]
Mental Defeat score			
Mean (SD)	40.7 (13.4)	43.7 (13.0)	35.4 (12.6)
Median [Min, Max]	41.0 [5.00, 64.0]	43.5 [5.00, 64.0]	34.5 [12.0, 62.0]
Number of trauma types			
Mean (SD)	2.59 (1.53)	2.98 (1.56)	1.92 (1.23)
Median [Min, Max]	2.00 [1.00, 7.00]	3.00 [1.00, 7.00]	1.00 [1.00, 5.00]
1 N(%)	56 (34.1)	25 (24.0)	31 (51.7)
2 N(%)	33 (20.1)	18 (17.3)	15 (25.0)
3 N(%)	26 (15.9)	20 (19.2)	6 (10.0)
4 N(%)	28 (17.1)	24 (23.1)	4 (6.7)
5 N(%)	14 (8.5)	10 (9.6)	4 (6.7)
6 N(%)	6 (3.7)	6 (5.8)	0 (0)
7 N(%)	1 (0.6)	1 (1.0)	0 (0)
Months since last trauma			
Mean (SD)	88.3 (119)	116 (133)	40.6 (69.3)
Median [Min, Max]	35.0 [0, 620]	68.5 [0, 620]	15.0 [0, 394]
Missing N(%)	3 (1.8%)	2 (1.9%)	1 (1.7%)

Table 2.

Breakdown of PTSD and mental defeat scores by trauma type

	N (%)	PTSD severity M (SD)	Mental defeat score M (SD)
Non-interpersonal traumas	**60 (36.59)**	**50.0 (11.1)**	**35.4 (12.6)**
Natural disaster	2	39.0 (8.49)	27.0 (7.07)
Fire or explosion	2	57.5 (0.707)	37.0 (5.66)
Transportation accident	13	48.0 (12.1)	33.3 (15.3)
Serious accident at home, work or recreation	3	56.7 (11.5)	30.0 (7.81)
Exposure to toxic substance	2	36.5 (2.12)	25.0 (17.0)
Life-threatening illness or injury	17	48.9 (9.14)	40.7 (12.7)
Severe human suffering	0	0	0
Sudden accidental death	5	47.8 (8.70)	29.4 (15.8)
Birth Trauma	16	54.3 (12.4)	36.4 (9.46)
Interpersonal traumas	**104 (63.41)**	**57.0 (12.0)**	**43.7 (13.0)**
Physical assault	32	59.9 (13.1)	43.9 (15.5)
Assault with a weapon	2	70.0 (0)	59.5 (6.36)
Sexual assault	22	55.5 (11.6)	45.1 (12.4)
Other unwanted sexual experience	13	51.5 (9.34)	42.3 (9.40)
Combat or exposure to a war-zone	6	62.2 (9.54)	48.2 (12.4)
Captivity	2	57.5 (19.1)	43.0 (17.0)
Sudden violent death	0	0	0
Serious injury, harm, or death you caused to someone else	1	50.0 (0)	23.0 (0)
Medically induced trauma	7	53.7 (10.8)	36.4 (13.3)
Domestic / Emotional abuse	17	56.2 (13.2)	42.6 (10.1)
Terrorist attack	1	60.0 (0)	60.0 (0)
Other interpersonal not specified	1	53.0 (0)	46.0 (0)

Note. Where participants endorsed multiple traumas, the trauma with the longest duration or greatest number of periods it was experienced within was chosen given the focus on the research to explore the impact of cumulative traumas.

Individuals exposed to non-interpersonal traumas will experience lower levels of mental defeat than individuals exposed to interpersonal traumas (H_1)

All assumptions regarding linearity, multicollinearity, outliers, residuals and normality were met. There were minor deviations in Q-Q and P-P plots, however linear regressions have been shown to be robust to violations of normality (Schmidt & Finan, 2018).

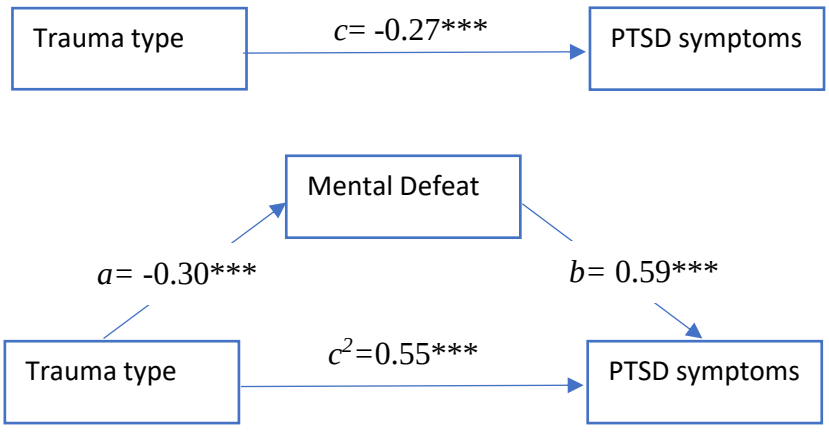
A multiple variable linear regression showed that non-interpersonal traumas were associated with significantly lower mental defeat scores than interpersonal traumas when accounting for sex, number of trauma types and time since trauma (R^2=0.095, F(4, 160)=4.07, p=0.004; β=-0.28, p<0.001), with mean scores of 35.4 (SD=12.6) and 43.7 (SD=13.0) respectively.

Mental defeat will mediate the relationship between type of trauma (interpersonal versus non-interpersonal) and PTSD symptom severity (H_2)

All statistical assumptions were met. Mediation analyses following Baron and Kenny's (Baron & Kenny, 1986) method revealed that trauma type had a significant association with PTSD symptom severity (R^2=0.067, F(1, 165)=12.87, p<0.001; β=-0.27, p<0.001), and mental defeat (R^2=0.089, F(1, 163)=15.80, p<0.001; β=-0.30, p<0.001) with non-interpersonal traumas scoring lower. Mental defeat was also significantly associated with PTSD severity (R^2=0.34, F(1, 163)=84.64, p<0.001; β=0.59, p<0.001). A significant relationship between trauma type, mental defeat and PTSD severity was found (R^2=0.36, F(2, 163)=44.28, p<0.001; β=0.55, p<0.001), and this analysis resulted in the relationship between trauma type and PTSD becoming non-significant (β=-0.11, p=0.09), indicating mediation of trauma type on PTSD severity via mental defeat.

Figure 1

Statistical diagrams illustrating the direct and indirect effect of trauma type on PTSD.



*Note: ***p<0.001, Beta values have been reported*

a= direct effect of trauma type on mental defeat

b= direct effect of mental defeat on PTSD symptoms

c= direct effect of trauma type on PTSD symptoms

c^2= indirect effect of trauma type on PTSD symptoms via mental defeat as a mediator

Discussion

In line with our main hypothesis, interpersonal traumas were found to be associated with significantly higher scores of mental defeat than non-interpersonal traumas, when accounting for sex, time since trauma and number of trauma types. The second hypothesis was also supported as interpersonal traumas were associated with greater PTSD severity via mental defeat as a mediator.

This is the first study to show that interpersonal traumas are associated with significantly higher scores of mental defeat than non-interpersonal traumas. These results build upon previous findings that individuals who reported physical or sexual abuse had higher levels of generalised mental defeat than those who reported car accidents as their index event (Panagioti et al., 2015). Current findings expand upon the previous study by including a wider range of traumas (e.g. illnesses, injuries, war), controlling for confounding variables including sex, number of trauma types, and time since trauma; and by comparing two distinct groups of trauma types. For instance, where participants in *Panagioti et al.* could have mixed traumas, this study excluded participants with both interpersonal and non-interpersonal traumas, isolating the effect of trauma type on mental defeat. The findings that appraisals of mental defeat were more strongly associated with interpersonal traumas also align with broader research demonstrating that interpersonal traumas lead to greater negative appraisals about the self (Cromer & Smyth, 2010; Martin et al., 2013; Ponnamperuma & Nicolson, 2016). This outcome supports the link that trauma characteristics (e.g. type) affect cognitive appraisals (mental defeat), as highlighted in the cognitive theory of PTSD (Ehlers

& Clark, 2000). As interpersonal traumas are those that are purposefully caused by another person, it is no surprise that individuals who have experienced these traumas have a greater sense of loss of social status, which is an interpersonal process, and consequently experience greater powerlessness and hopelessness (Gilbert & Allan, 1998).

Furthermore, BTT may help to explain the greater association between interpersonal traumas and mental defeat (Freyd, 1996; Giesbrecht & Merckelbach, 2009). BTT proposes that interpersonal traumas are more likely to lead to dissociation during the event as an evolutionary mechanism to aid the individual with forgetting in order to protect the social relationship. However, dissociation disrupts the cognitive processing of the event, affecting the nature of the memory and leading to the individual experiencing greater negative appraisals about themselves in relation to others (Ehlers & Clark, 2000). Furthermore, relationships and other people may serve as constant reminders of the event, its consequences and the way the individual sees themselves for interpersonal traumas.

Results from the current study supported the theory that mental defeat mediates the relationship between trauma type and PTSD severity, which extends previous findings that both peri-traumatic and general appraisals of mental defeat increase PTSD (Troop & Hiskey, 2013; Wilker et al., 2017). This mediation effect fits the cognitive theory of PTSD, which posits that the nature of the trauma (type) affects memory processing and leads to negative appraisals (mental defeat), which maintains a current sense of threat and exacerbates PTSD (Ehlers & Clark, 2000). Based on the cognitive theory of PTSD, there are several mechanisms by which appraisals of mental defeat may increase PTSD severity. Interpersonal traumas have been shown to be associated with greater fear and anxiety in trusting or being around other people (Bell et al., 2019; Gobin & Freyd, 2014), and have been linked to greater non-fear emotions of shame, guilt, disgust, anger and depression compared to non-interpersonal traumas (Badour et al., 2011; Badour et al., 2017; Baker et al., 2021; Park et al.,

2016). Appraisals of mental defeat may increase the experience of these emotions and thus increase the current sense of threat to the individual. Furthermore, it could be that appraisals of mental defeat are associated with greater maladaptive coping responses such as rumination, self-criticism, or avoidance which then prevent the memory and appraisals from being updated and exacerbate PTSD symptoms (Ehlers & Clark, 2000; Taylor et al., 2011; Tucker et al., 2016). Nevertheless, it is important to note that full mediation is rarely found in psychological research, given its cross-sectional nature and the potential presence of other mediating variables that were not accounted for (Baron & Kenny, 1986). Future studies could explore the mechanisms by which interpersonal traumas and higher mental defeat increase PTSD severity using longitudinal designs.

Prior research shows that cumulative interpersonal traumas lead to greater increases in PTSD severity compared to cumulative non-interpersonal traumas (Cromer & Smyth, 2010; Green et al., 2000; Liu et al., 2017), and shows differences in post-traumatic appraisals as the number of traumatic experiences in each group increase (Baker et al., 2021; Cromer & Smyth, 2010). This study was unable to explore the impact of cumulative trauma exposure on mental defeat due to variations in how the number of traumas were reported and it was deemed that the number of different trauma types experienced was not a suitable measure to use as it would not account for repeated exposure to the same event. This hypothesis was removed from the analyses as a result. These findings reflect the ongoing challenges of defining number of traumas within PTSD research (Wilker et al., 2015). Future research is needed to explore the impact of number of traumas on mental defeat and PTSD severity, perhaps using frequency of events as a measure or collecting data through researcher administered questionnaires to ensure consistency.

Clinical Implications and future research

These findings could improve the early identification, psychological assessment, and treatment of PTSD to include general appraisals of mental defeat. Clinicians in both mental and physical health settings could assess for the presence of these appraisals following all traumatic experiences but should be particularly aware of this following interpersonal traumas. Recognising these risk factors could help prevent PTSD or lead to earlier interventions. For example, preventive strategies such as social support, and ensuring positive interpersonal interactions in the first month following a trauma may help reduce these appraisals linked to having lost social status, identity, and power (Hogg, 2016). Working to re-appraise these cognitions using strategies from trauma-focused cognitive behavioural therapy such as cognitive restructuring could reduce PTSD symptoms and improve treatment outcomes for individuals and services. Further research is needed to evidence how best to treat appraisals of mental defeat, explore the mechanisms by which interpersonal traumas and mental defeat increase PTSD severity, and investigate the impact of number of traumas on mental defeat.

Limitations

There are several important limitations to consider. First, the cross-sectional design limits the causal inferences that can be made, particularly for mediation. This design was selected as the best fit to answer the primary research question within the time constraints. A longitudinal study would be required to draw more robust causal inferences. Nevertheless, given that the focus was on current appraisals of mental defeat, the traumatic events had already occurred. Additionally, appraisals are highlighted as a mechanism for developing PTSD in the cognitive model, which aligns with the theory that mental defeat would act as the mediator. It is also important to note that other confounding variables may also be present that were not accounted for.

This study benefitted from an anonymous online survey which was advertised across a range of sources, including the community. This may reduce sampling bias and response bias, as it is less likely that experiences of shame would influence responses. Conversely, this meant that a gold-standard diagnostic tool such as the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) was not used, meaning some participants may not meet diagnostic criteria or some who would have were excluded. Additionally, using an online platform meant that there was limited detail about traumatic experiences. However, the PCL-5 and LEC-5 are commonly used in PTSD research.

Further limitations are the exclusion of participants who had experienced both interpersonal and non-interpersonal traumas and the low number of NHS participants. While the exclusion of participants who had experienced both types during the screening questions allowed for discrete groups of interpersonal versus non-interpersonal traumas, this meant that 395 participants could not take part. The sample in this study may, therefore, not represent individuals presenting to services. Allowing for a third group of participants with both trauma types could have provided additional insights into the impact of different traumas and whether there are increased risks for individuals with both interpersonal and non-interpersonal traumas compared to those who have experienced either one or the other.

Furthermore, there were uneven group sizes with fewer participants in the non-interpersonal group due to difficulty engaging relevant services. Many participants did not complete the study beyond the PCL-5 leading to a large amount of missing data and exclusions from the study. Finally, the sample consisted of primarily white (91.6%) females (84.3%) and may not represent males or ethnic minorities. Given that research shows that males experience more negative post-traumatic cognitions following a non-interpersonal trauma than females, this could be an area for future research.

Conclusion

This was the first study to explore the role of general mental defeat appraisals in interpersonal versus non-interpersonal traumas. Having experienced interpersonal traumas was associated with significantly higher scores of mental defeat compared to having experienced non-interpersonal traumas. Interpersonal traumas also appeared to lead to greater PTSD symptoms via mental defeat as a mediator. Additional research is needed to explore the mechanisms by which cumulative traumas increase PTSD severity, and why the increase appears to be greater for cumulative interpersonal traumas. Nonetheless, these findings have potential implications for expanding psychological assessments, and improving treatment outcomes for individuals with PTSD.

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Wilker, S., Pfeiffer, A., Kolassa, S., Koslowski, D., Elbert, T., & Kolassa, I.-T. (2015). How to quantify exposure to traumatic stress? Reliability and predictive validity of measures for cumulative trauma exposure in a post-conflict population. *European journal of psychotraumatology*, *6*(1), 28306.

Executive Summary

Why was the study done?

After experiencing a traumatic event, some individuals develop a condition called Post-Traumatic Stress Disorder (PTSD), where they experience unwanted memories of the event, anxiety, avoidance, changes in their mood and thinking, and feeling on edge. Researchers have tried to explain why some people develop PTSD whereas others do not and why some people have worse symptoms.

So far, research shows that the type of trauma experienced may help explain these differences. In particular, traumas that have been purposefully caused by another individual (interpersonal traumas) appear to lead to worse symptoms of PTSD compared to natural or accidental traumas (non-interpersonal traumas). In addition, the more traumas someone experiences, the worse their symptoms are, and it is suggested that the more interpersonal traumas someone experiences, the greater the increase in their PTSD severity compared to non-interpersonal traumas.

We wanted to find out why interpersonal traumas and having experienced more traumas seem to worsen PTSD. Theories suggest that the way someone thinks about their trauma and its consequences can play an important role, but no studies had yet explored the impact of trauma type on 'mental defeat'. Mental defeat is a term used to describe thoughts about having lost social status, and a sense of identity resulting in feelings of powerlessness and hopelessness.

Therefore, this study aimed to look at:

1) Whether mental defeat was higher in individuals who had experienced interpersonal traumas compared to those who had experienced non-interpersonal traumas

2) Whether interpersonal traumas lead to higher mental defeat which then leads to greater PTSD symptoms.

How was the study carried out?

The study involved an anonymous online questionnaire advertised to participants through NHS services in Berkshire, Oxfordshire and Buckinghamshire, and via mental health charities, online forums, and social media. Individuals who were over 18-years-old, reported experiencing only interpersonal or non-interpersonal traumas and who scored above 33 on a PTSD screening measure were able to take part. People who scored below 33 or who had experienced both trauma types were excluded. Those who took part completed questionnaires about the number and type of traumas they had experienced, the date of their most recent trauma, their PTSD symptoms, symptoms of mental defeat, age, sex and ethnicity.

What did the study find?

164 individuals took part in the online questionnaire; 60 had experienced only non-interpersonal traumas, and 104 had experienced only interpersonal traumas. We found that those who had experienced interpersonal traumas had higher levels of mental defeat than non-interpersonal traumas, even when we took into account other factors such as their sex, time since trauma and number of traumas. We also found that interpersonal traumas lead to higher levels of mental defeat and subsequently higher levels of PTSD symptoms than non-interpersonal traumas. Therefore, mental defeat could help explain the higher severity of symptoms in people with interpersonal trauma histories.

Due to variations in the reporting of the number of traumas, we were unable to look at how the number affected thoughts of mental defeat and PTSD severity.

What are the limitations of the study?

The study was completed entirely online, which helped to provide anonymity and allow people to answer honestly. However, this meant that we were not able to use a gold-standard measure to confirm that participants met the criteria for a diagnosis of PTSD. The study also excluded a large number of people who had both types of trauma, which means it may not represent people presenting to services. The sample consisted of mainly white (91.6%) females (84.3%), and may not represent males or individuals from other ethnic backgrounds. In addition, the questionnaire was completed at one time point. Therefore, we have to be tentative in saying that interpersonal traumas increase mental defeat and then increase PTSD scores, as we cannot confirm the order in which these factors occurred.

Conclusions

Experiencing traumas that are purposefully caused by someone else appears to be linked to higher scores of mental defeat than those who have experienced natural or accidental traumas. The higher scores of mental defeat in interpersonal traumas also appear to be linked to higher levels of PTSD symptoms. Mental defeat is an important factor for clinicians to assess for and treat when faced with clients with PTSD, particularly those who have experienced interpersonal traumas. These findings align with previous research and theories in the field of PTSD. However, further research is needed to explore the means by which the number of traumas someone has experienced increases their PTSD symptoms. Nonetheless, this research showed that mental defeat is an important factor to consider regardless of the number of traumas someone has experienced.

Connecting Narrative

I worked as a research assistant prior to training, where the boundaries of my role and the projects I worked on were pre-determined. Therefore, coming into clinical training, it was important for me to be able to design studies that matched my own interests and were areas that I would want to research further once I qualify. I wanted to develop my knowledge of post-traumatic stress disorder, so this was a connecting theme for all three projects. I sought advice and support from clinicians working within a specialist trauma service, and an academic tutor with knowledge in this area. Nevertheless, wanting to design the projects from scratch and have them match my own interests proved harder than I anticipated. It took a while to come up with ideas that would meet these criteria, and be novel and add value to the literature. I found that a lot of the ideas I came up with had already been done or were unrealistic within the timeframe of the doctorate.

Critical Review of the Literature (CRL)

The CRL was one of the ideas that came easiest to me as prior to training I had worked in an inpatient ward where I was introduced to Compassion Focused Therapy (CFT), a treatment focusing on alleviating self-criticism, shame, and guilt. I was still new to this approach and wanted to learn more about the evidence and theoretical underpinnings of it. Through preliminary research, it appeared that there was not much evidence available on CFT, but books recommended its use in trauma populations and suggestions that it helps to overcome barriers to trauma-focused therapies. This got me wondering whether there was any evidence that looked at the impact of trauma-focused therapies on these emotions and whether CFT was needed. Most studies only reported on PTSD outcomes, so this became the focus of my CRL.

Having previously been involved in systematic reviews and meta-analyses, I felt confident with the procedures required. However, I found that the topic area I had chosen produced many papers to filter through and took up a considerable amount of time. I enjoyed working with a fellow Trainee Clinical Psychologist to screen articles as this was invaluable for ensuring papers were not missed and improving the reliability of the study. Given the large number of papers that were included in the study, Professor Craig Steel used his clinical and research knowledge within this field to help me classify the type of therapies used into theoretically-justified groups. This will help me to think more systemically and use theory in the future to justify decisions and categorise findings.

I was shocked by the findings that very few RCTS included outcomes of shame, guilt, and anger, as these are emotions commonly present in PTSD. Given that there was limited evidence to say that trauma-focused therapies alone do or do not improve these difficulties, it made me wonder about the justification for using CFT, which also does not have much of an evidence-base. I would like to continue to research the effectiveness of different psychological treatments for shame, guilt and anger in PTSD post-training.

Service Improvement Project

I had previous experience completing service evaluation projects. However, I was less familiar with the requirements needed for improvement projects. Going through this process helped build my confidence and knowledge of the difference between the two processes. I learnt from this to build research from the ground up and to incorporate service users throughout, as opposed to ideas being implemented by staff and then asking service users to evaluate it.

There were several important learning points for me, including the importance of integrating with clinical teams to get staff on board with the project and aid recruitment. My external

supervisor left the service as I was starting to recruit participants and it took months for another supervisor to agree to oversee the project, which set it back six months. I found myself feeling frustrated and powerless at this time. However, once the project got going, I really enjoyed working qualitatively and getting to hear first-hand the views of the service users, which I think has really helped me to view things from the client's perspective as opposed to staff perspectives. I am proud of the outcome of this project and received some wonderful feedback from service users and staff. Although it was a challenging process, it has given me the confidence to want to continue developing services moving forward.

Theoretically-Driven Research Project

Having primarily researched military populations, I was excited about the idea of expanding my knowledge of trauma to other populations and trauma types. While it took a while to determine how best to divide traumas into groups, I learned the importance of referring to the literature to ensure consistency between studies. Due to the COVID-19 pandemic, my NHS sponsorship and ethics approval was delayed by 12 months. This was extremely anxiety-provoking as although I had done everything within my power to complete the paperwork and answer queries in a timely manner, a lot of the procedures were out of my control, and all I could do was wait. Nevertheless, while this was a difficult process, I learned a great deal about ethics and data management and can see how it helped form a much more rigorous and ethically-sound project. Working to recruit the required sample within a reduced timeframe helped me learn other processes such as applying for PIC sites, working with other organisations, and using my team working skills to appeal to busy clinicians. I now have a much better awareness of what is needed to conduct research within NHS settings, which will help me moving forward in my career as I hope to continue to work in clinical research to explore patient and staff needs and the effectiveness of different psychological treatments.

Acknowledgements

I would firstly like to thank all the individuals who took the time to take part in my research projects. Without their help, none of this would have been possible. I would particularly like to thank the ladies from the Berkshire Traumatic Stress Birth Trauma Pathway who took the time to discuss their thoughts with me on several occasions, and kindly contributed their stories, recommendations and time to help design the Birth Trauma Booklet. I hope that all three of these projects will help to provide insights and improve the treatments and care provided to individuals struggling with PTSD.

I am incredibly grateful for all the support offered by my supervisors, particularly Professor Craig Steel, who kindly agreed to oversee all three of these projects, and has been a source of guidance and wisdom throughout. I would like to thank Dr Dorothy King, Dr Martha Nicholson, Dr Olivia Williams and Dr Rebecca Knowles-Bevis for their helpful insights and ideas throughout the process and Colleen Cooper, who single-handedly recruited the majority of the birth trauma participants for my service improvement project. I would also like to show my appreciation to the NHS services, charities and social media groups who, despite being incredibly busy, helped to advertise and recruit participants for the mental defeat project.

My partner and fellow Trainee, Shabeer Syed has been an absolute rock throughout the process, not only helping to keep me level-headed but aiding with the screening of articles and double-rating for the critical review. Without his unwavering support and endless words of encouragement, I would not have got as far as I have. The support and encouragement from my partner, family and the DClinPsych cohort as a whole have been invaluable throughout these three years. Thank you all.

Appendices

Appendix A: CRL PRISMA checklists

Abstract checklist

Section and Topic	Item #	Checklist item	Reported (Yes/No)
TITLE			
Title	1	Identify the report as a systematic review.	Yes
BACKGROUND			
Objectives	2	Provide an explicit statement of the main objective(s) or question(s) the review addresses.	Yes
METHODS			
Eligibility criteria	3	Specify the inclusion and exclusion criteria for the review.	Yes
Information sources	4	Specify the information sources (e.g. databases, registers) used to identify studies and the date when each was last searched.	Yes
Risk of bias	5	Specify the methods used to assess risk of bias in the included studies.	Yes
Synthesis of results	6	Specify the methods used to present and synthesise results.	Yes
RESULTS			
Included studies	7	Give the total number of included studies and participants and summarise relevant characteristics of studies.	Yes
Synthesis of results	8	Present results for main outcomes, preferably indicating the number of included studies and participants for each. If meta-analysis was done, report the summary estimate and confidence/credible interval. If comparing groups, indicate the direction of the effect (i.e. which group is favoured).	Yes
DISCUSSION			
Limitations of evidence	9	Provide a brief summary of the limitations of the evidence included in the review (e.g. study risk of bias, inconsistency and imprecision).	Yes
Interpretation	10	Provide a general interpretation of the results and important implications.	Yes
OTHER			
Funding	11	Specify the primary source of funding for the review.	n/a

Section and Topic	Item #	Checklist item	Reported (Yes/No)
Registration	12	Provide the register name and registration number.	Yes

Main body checklist

Section and Topic	Item #	Checklist item	Item reported
TITLE			
Title	1	Identify the report as a systematic review.	Yes
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Yes
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Yes
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Yes
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Yes
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Yes
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Yes
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Yes
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Yes
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Yes
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Yes
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Yes
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	Yes
Synthesis	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and	Yes

Section and Topic	Item #	Checklist item	Item reported
methods		comparing against the planned groups for each synthesis (item #5)).	
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Yes
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Yes
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Yes
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	Yes
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	n/a
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	n/a
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	Yes
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Yes
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Yes
Study characteristics	17	Cite each included study and present its characteristics.	Yes
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Yes
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	Yes
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Yes
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	Yes
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	Yes
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	n/a
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	n/a
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	Yes
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Yes

Section and Topic	Item #	Checklist item	Item reported
	23b	Discuss any limitations of the evidence included in the review.	Yes
	23c	Discuss any limitations of the review processes used.	Yes
	23d	Discuss implications of the results for practice, policy, and future research.	Yes
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	Yes
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Yes
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	n/a
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	n/a
Competing interests	26	Declare any competing interests of review authors.	n/a
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	n/a

Appendix B: CRL Search terms

1. **Search terms**

((trauma* adj3 stress) or (stress adj3 disorder*) or PTSD)

AND

cognitive behav* therap* OR cognitive processing therap* OR CBT OR CCBT OR CT-PTSD OR ((behavi* OR cognitive) ADJ3 (intervention* or manag* or program* or restructur* or process* or therap* or treat*))

OR

trauma adj (based or focus* or led) OR exposure therap* OR narrative exposure OR prolonged exposure OR imaginal exposure

OR

(emdr or (eye movement adj2 desensiti*))

AND

(random* or placebo* or assign* or allocat*) or (control* or compar* or clin* or evaluat* or prospectiv*)

AND

trial* or stud*3

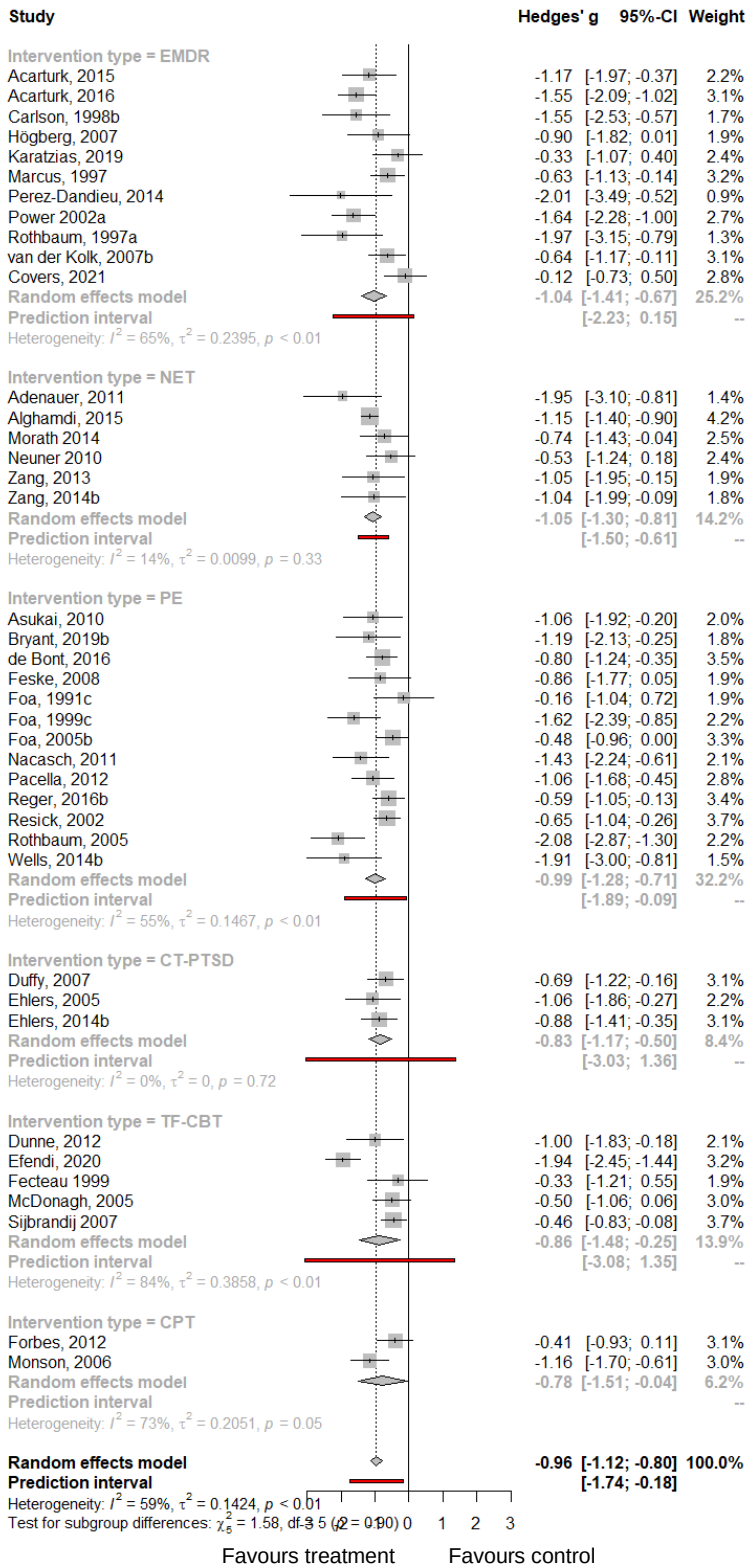
Appendix C: CRL GRADE ratings for each outcome

Outcome	No. studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Intervention (n)	Comparator (n)	Effect Relative (95% CI)	Certainty	Importance
Depression	40	RCT	Serious	Serious	Not serious	Not serious	Not detected	Trauma-focused (964)	Treatment as usual (860)	0.96, (-1.12 to -0.80)	Moderate/ High	Critical
Depression	21	RCT	Serious	Serious	Not serious	Serious	Not detected	Trauma-focused (689)	Non-trauma-focused (633)	-0.29 (-0.50 to -0.08)	Moderate	Critical
Depression	12	RCT	Serious	Very serious	Not serious	Not serious	Not detected	PE (706)	Other trauma-focused (705)	-0.01 (-0.11 to 0.10)	Low/ Moderate	Critical
Depression	7	RCT	Serious	Very serious	Not serious	Very serious	Unknown	EMDR (144)	Other trauma-focused (132)	-0.20 (-0.60 to 0.19)	Very low/low	Critical
Anger	3	RCT	Serious	Serious	Not serious	Very serious	Unknown	Trauma-focused (68)	Treatment as usual (63)	-0.22 (-1.54 to 1.09)	Low	Critical
Anger	3	RCT	Serious	None	Not serious	Very serious	Unknown	Trauma-focused (58)	Non-trauma-focused (54)	0.01 (-0.37 to 0.38)	Low/ Moderate	Critical
Anger	5	RCT	Very serious	None	Not serious	Serious	Unknown	PE (563)	Other trauma-focused (552)	-0.07 (-0.19 to 0.04)	Low/ Moderate	Critical

Guilt	5	RCT	Very serious	Very serious	Not serious	Very serious	Unknown	PE (175)	Other trauma-focused (170)	0.07 (-0.15 to 0.28)	Very low	Critical
Shame	3	RCT	Very serious	None	Not serious	Very serious	Unknown	PE (98)	Other trauma-focused (92)	-0.09 (-0.37 to 0.20)	Low	Critical

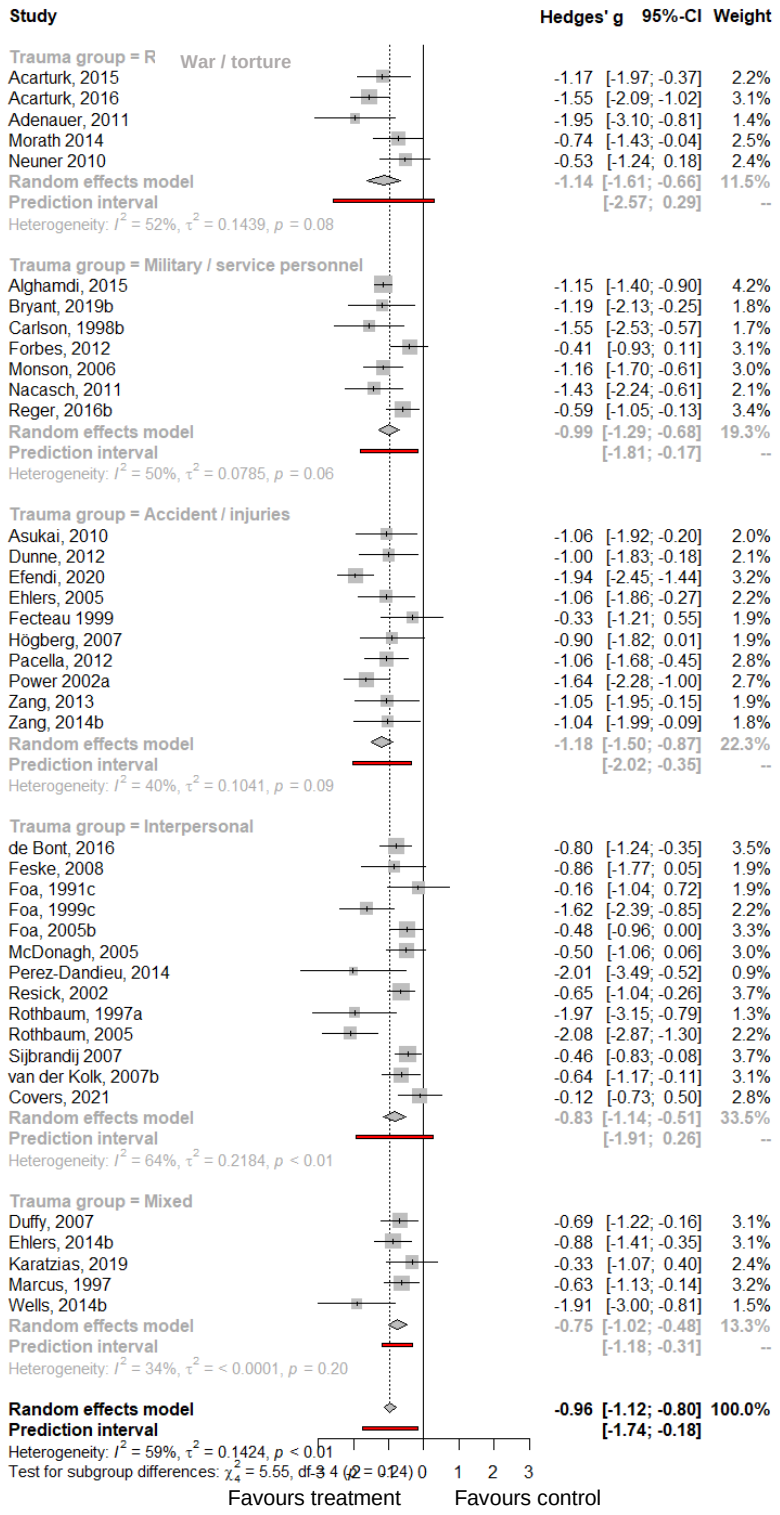
Appendix D: CRL Subgroup Analysis of Trauma-Focused Therapy vs. Treatment As Usual by Intervention Type for Depression

Supplementary Figure 1.



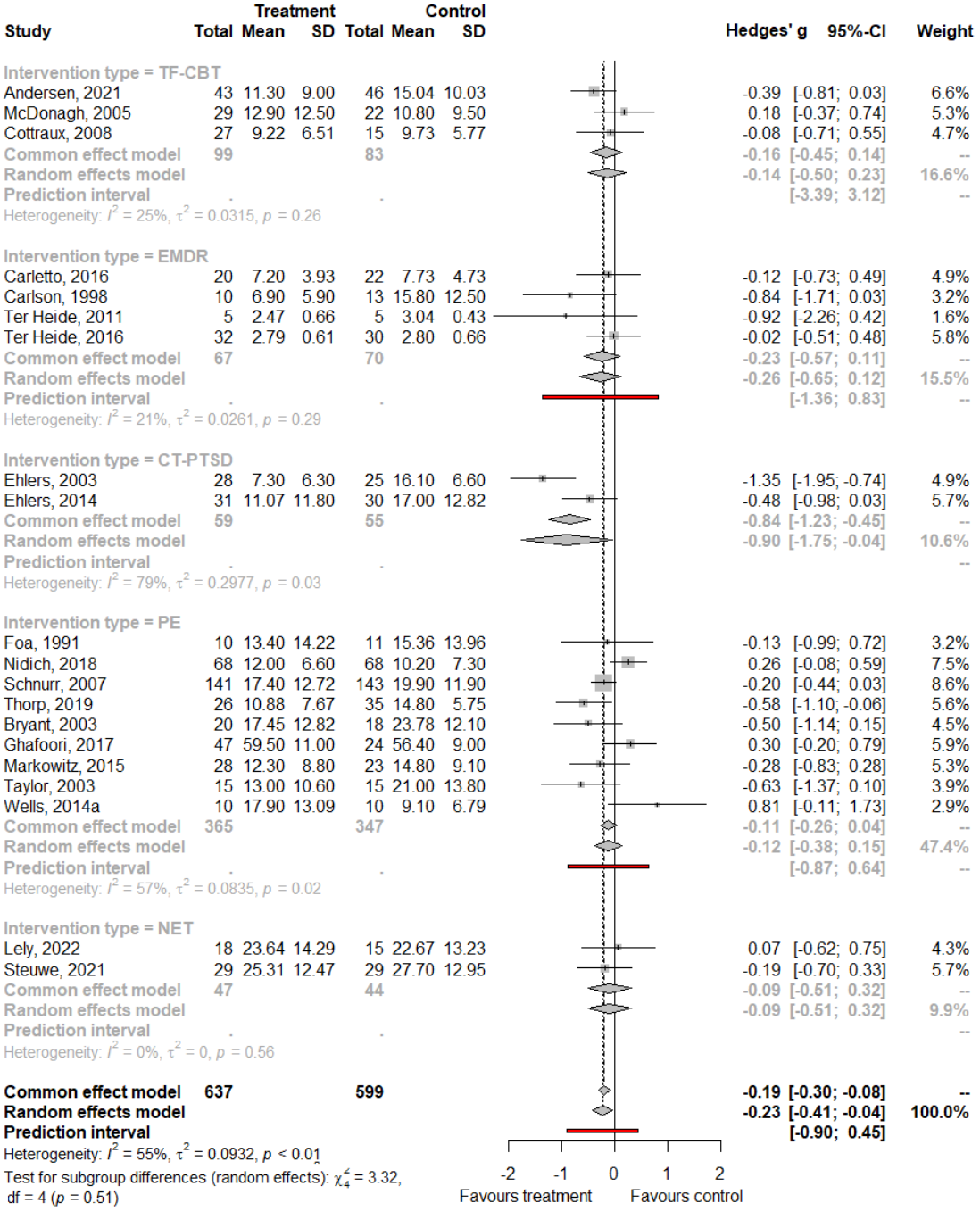
Appendix E: CRL Subgroup Analysis of Trauma-Focused Therapy vs. Non-Trauma-Focused Therapy by Trauma Type for Depression

Supplementary Figure 2.



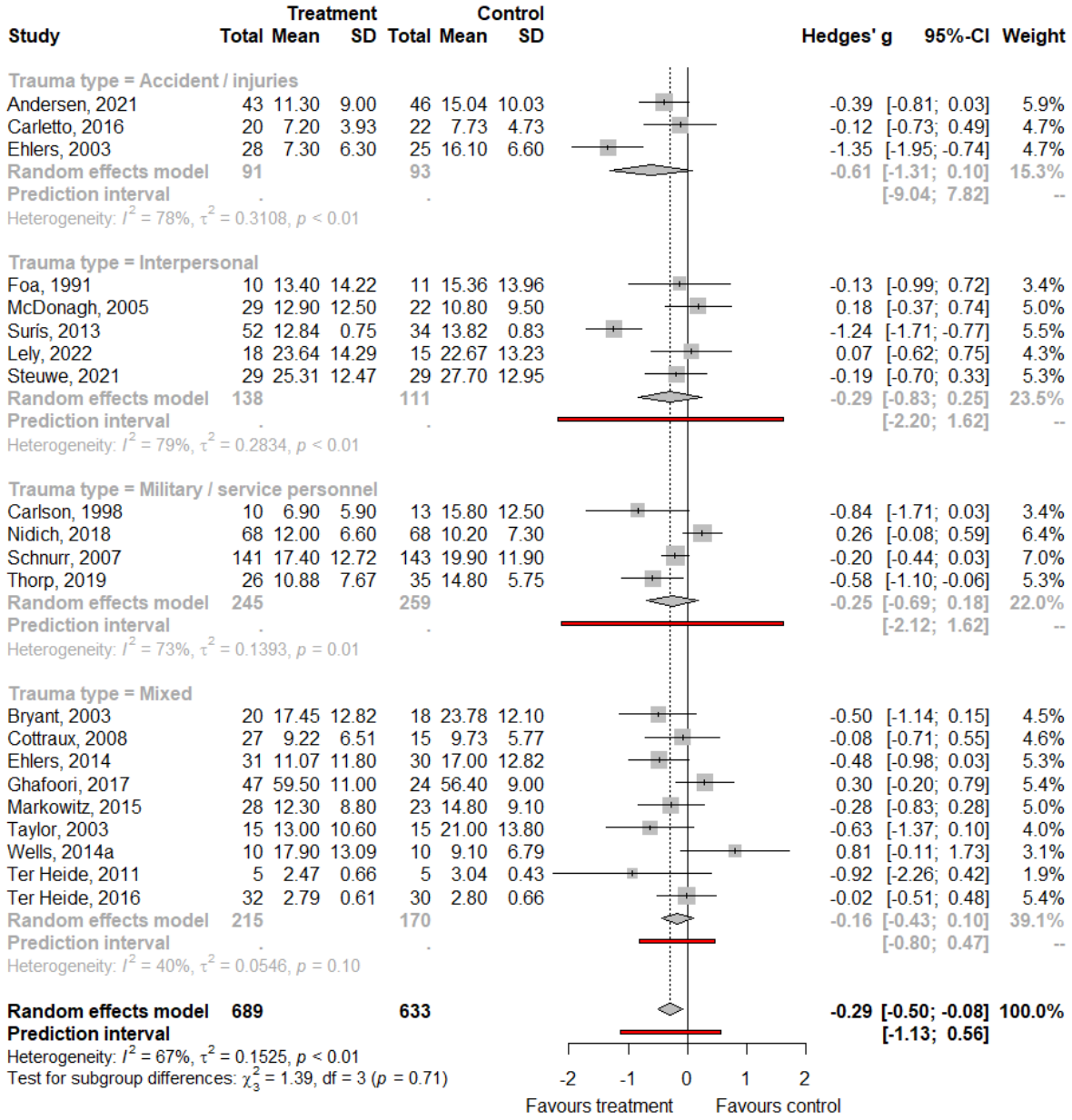
Appendix F: CRL Subgroup Analysis of Trauma-Focused Therapy vs. Non-Trauma-Focused Therapy by Intervention Type for Depression

Supplementary Figure 3.



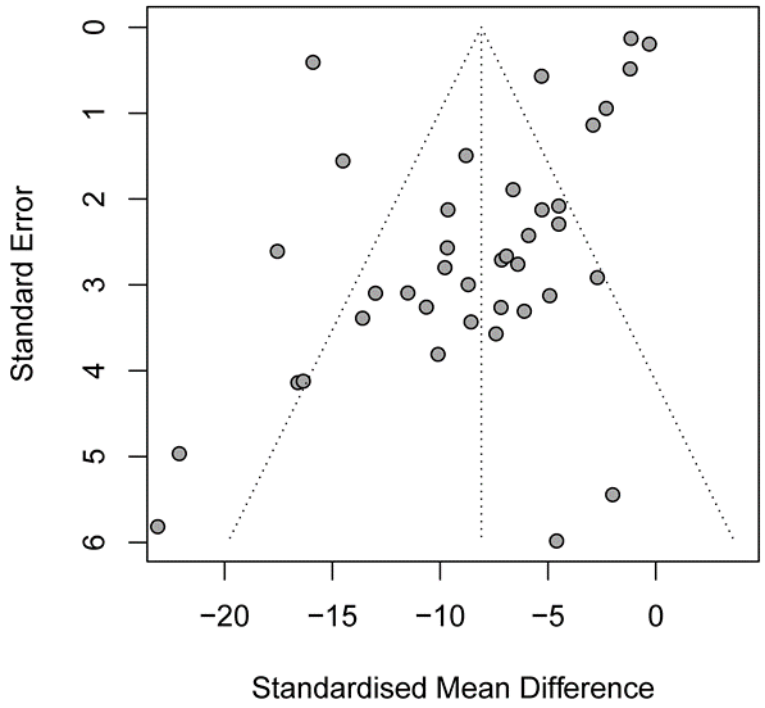
Appendix G: CRL Subgroup Analysis of Trauma-Focused Therapy vs. Non-Trauma-Focused Therapy by Trauma Type for Depression

Supplementary Figure 4.



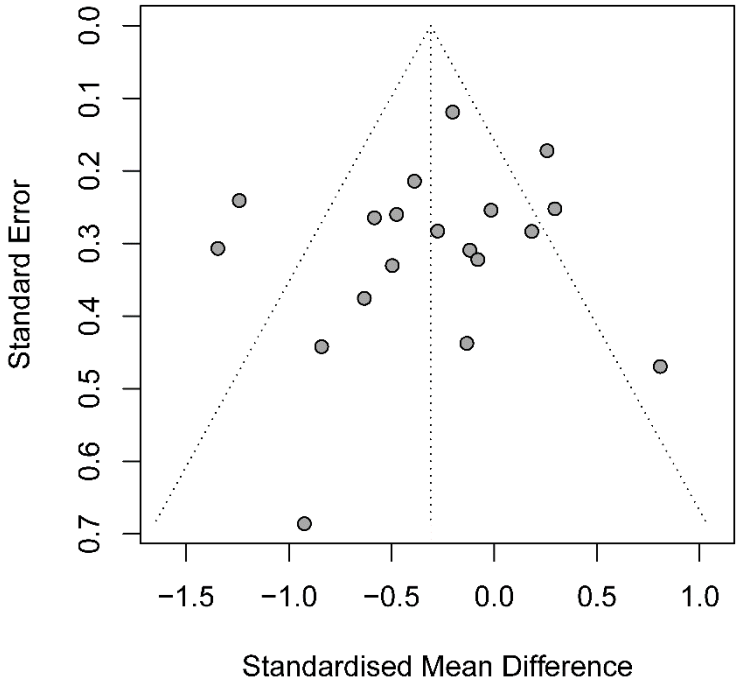
Appendix H: CRL Funnel Plot for Trauma-Focused Therapies vs. Treatment As Usual for Depression

Supplementary Figure 5.



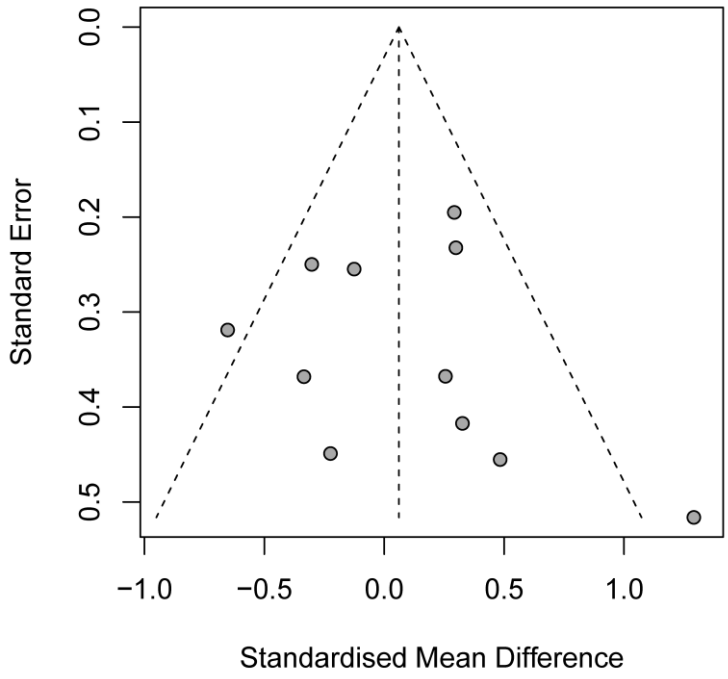
Appendix I: CRL Funnel Plot for Trauma-Focused Therapies vs. Non-Trauma-Focused Therapies for Depression

Supplementary Figure 6.



Appendix J: CRL Funnel Plot for PE vs. Other Trauma-Focused Therapies for Depression

Supplementary Figure 7. *Funnel Plot for PE vs. Other Trauma-Focused Therapies for Depression*



Appendix K: CRL Author Guidelines for Clinical Psychology Review

CLINICAL PSYCHOLOGY REVIEW

AUTHOR INFORMATION PACK

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- Impact Factor p.1
- Abstracting and Indexing p.2
- Editorial Board p.2
- Guide for Authors p.4



ISSN: 0272-7358

DESCRIPTION

Clinical Psychology Review publishes substantive reviews of topics germane to **clinical psychology**. Papers cover diverse issues including: psychopathology, psychotherapy, behavior therapy, cognition and cognitive therapies, behavioral medicine, community mental health, assessment, and child development. Papers should be cutting edge and advance the science and/or practice of clinical psychology.

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Appendix L: SIP Questionnaire / feedback form for information received

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I am satisfied with the information I received from the service					
The information helped me to understand how the service works					
I feel that I have a better understanding of postnatal PTSD from the information					
The information helped give me coping strategies to reduce my distress					
The information helped me to feel less alone in my difficulties					
The information made me more likely to engage with the service					
The information was clear and easy to read					
The information was well presented					
The information had the right amount of information					
The information was given to me at the right stage of my treatment					
I would recommend the service to a friend or family member					

Appendix M: SIP Participant Information Sheet

PARTICIPANT INFORMATION SHEET

A service improvement project of Berkshire Healthcare NHS Foundation Trust's Birth Trauma information resource.

My name is Rachel Ashwick and I am a Trainee Clinical Psychologist at the University of Oxford. This is an invitation to take part in a service improvement project in regards to the Birth Trauma pathway information given to SU's.

Before you decide, it is important that you understand why the research is being done and what it would involve for you. Please take time to read this participant Information Sheet, and discuss it with others if you wish. If there is anything that is not clear, or if you would like more information, please ask by emailing me at: Rachel.ashwick@hmc.ox.ac.uk

WHAT IS THE PURPOSE OF THE STUDY?

The Berkshire Traumatic Stress service is developing the first treatment pathway in the UK focusing specifically on birth trauma. The service has been running for approximately two years. As part of this, we would like to create a specialised booklet for SU's who have experienced birth trauma as we recognise that it can often feel overwhelming commencing treatment. To help tailor the information to the needs of those accessing the service, we would love to get your ideas on what you think should be included.

WHY HAVE I BEEN INVITED?

You have been asked to participate in this project as you are currently or have previously accessed support from the birth trauma service. We would really value feedback from people who are at different stages in their treatment.

DO I HAVE TO TAKE PART?

No, taking part is completely voluntary. You have the right to withdraw from the project at any point during the study without giving a reason. The project has no impact on your clinical care.

WHAT WILL HAPPEN TO ME IF I DECIDE TO TAKE PART?

I will call you and ask you to take part in an interview over the telephone. We will arrange a telephone call at a time that is convenient for you. The call will last approximately 45-60 minutes and I will ask for your consent to take part. This interview will comprise of questions about information you have already received and what information you think would be helpful to include in a booklet for the birth trauma service. It will also include a short questionnaire. You will have the opportunity to ask any questions that you like. The interview will be recorded and transcribed but will be anonymised and unidentifiable. After transcription, the recording will be deleted.

ARE THERE ANY DISADVANTAGES/RISKS FROM TAKING PART?

There are no disadvantages or risks of taking part. Your feedback will be anonymous and will have no impact on your clinical care. You will have the right to withdraw at any point. If you

experience any distress, you will be provided with the Berkshire Traumatic Stress service's contact details as well as third-party organisations that will be able to offer support and guidance.

WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?

We hope that your participation in this will help us to improve the information that is provided to SU's accessing the birth trauma service and help to improve the quality of care that is received. However, there are no direct benefits to those participating.

WILL MY GENERAL PRACTITIONER/FAMILY DOCTOR (GP) BE INFORMED OF MY PARTICIPATION?

No.

WHAT HAPPENS WITH MY INFORMATION?

The feedback you provide in the interview will be audio recorded on a protected NHS device and transcribed. Once it is transcribed, the recording will be deleted. All data used will be anonymised. We may report additional demographic information such as age, employment, relationship status and time since trauma however personal information will be removed so you cannot be identified.

For the data analysis, all of the interview feedback will be allocated a random number so it is unidentifiable. Interviews will be compared and themes will then be identified across all the interviews and reported.

Using the anonymised data, we hope to create a booklet for the Berkshire Traumatic Stress Service's birth trauma pathway. We may also report our findings in team meetings, academic journals and present them to relevant charities, and to health professionals at conferences. The findings will also contribute to Rachel Ashwick's Doctorate in Clinical Psychology. You will not be identified in any reports or publications arising from the study.

DATA PROTECTION

The Berkshire Traumatic Stress Service is the data controller with respect to your personal data, and as such will determine how your personal data is used in the study.

The trust will process your personal data for the purpose of the service improvement project outlined above.

WHAT IF THERE IS A PROBLEM?

Every care has been taken to ensure your safety during the course of the study. If you have a concern about any aspect of this study, please contact Rachel Ashwick (Rachel.ashwick@hmc.ox.ac.uk) or Dr Olivia Williams (Olivia.williams@berkshire.nhs.uk) and we will do our best to answer your query. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with.

The Patient Advisory Liaison Service (PALS) is a confidential NHS service that can provide you with support for any complaints or queries you may have regarding the care you receive as an NHS patient. PALS is unable to provide information about this research study.

I'm Interested! What's Next?

If you would like to participate, please sign the consent form and return it to Dr Olivia Williams. You will then be contacted to arrange a time for the telephone interview.

Thank you for taking the time to read this information sheet and for your interest in the project.

Rachel Ashwick, Trainee Clinical Psychologist, Oxford Institute of Clinical Psychology Training, Isis Education Centre, Warneford Hospital, Headington, Oxford. OX3 7JX
Rachel.ashwick@hmc.ox.ac.uk

You can also speak to the psychology team at the Berkshire Traumatic Stress Service:

Dr Olivia Williams	Olivia.williams@berkshire.nhs.uk
Dr Martha Nicholson	Martha.nicholson@berkshire.nhs.uk

Appendix N: SIP Consent Form

CONSENT FORM

A service improvement project of Berkshire Healthcare NHS Foundation Trust's Birth Trauma information resource.

If you agree, please initial box:

1. I confirm that I have read the information sheet for this study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.	
3. I understand that my personal data will be stored within the Berkshire NHS trust and anonymised data will be used for the project. I give permission for this data to be used for the service improvement project.	
4. I understand that anonymised data from the project may be reported in academic journals or presented to other healthcare professionals.	
5. I understand that the information held and maintained by Berkshire NHS may be used to help contact me.	
6. I agree to be contacted by telephone and mail for the purpose of research.	
7. I agree to be contacted to take part in further research in the future and understand that this does not mean I have to take part.	
8. I agree to take part in this study.	

Name of Participant	*Date*	*Signature*
_____	_____	_____
Name of Person taking Consent	*Date*	*Signature*
_____	_____	_____

Appendix O: SIP Interview Schedule for SU's from the Complex PTSD Pathway

Questions about the Complex PTSD Assessment Booklet

Thank you for speaking to me today. We are currently conducting research about the information we provide within the Berkshire Traumatic Stress Service. This will help us to improve the information we give out to SU's with Complex PTSD, but also help us to design new information for one of the other pathways; The Birth Trauma Pathway. We hope to use the information you provide us today to change the booklet you were given but also to help us to ask Birth Trauma SU's if they would like to receive that type of information too. This interview will last approximately 30 minutes and I would like to audio record our conversation. The recording will be typed up and then deleted and anything you say will be anonymous.

- Can I first start by asking you, what was your gut reaction when you first saw the Complex PTSD booklet you were given?

Regarding the section 'Understanding PTSD and Complex PTSD' was there:

a) Enough information?

b) Was the information clear and understandable?

c) Was the information accessible to you and readable?

d) What was most and least helpful in this section?

Regarding the section 'Coping with PTSD and Complex PTSD', which had grounding exercises, breathing and relaxation and resources, was there:

e) Enough information?

f) Was the information clear and understandable?

g) Was the information accessible to you and readable?

h) How useful are the strategies that are included and would you being able to practice these strategies independently, without having someone there to talk the strategy through?

i) What was most and least helpful in this section?

Regarding the section ‘Accessing support’, was there:

a) Enough information?

b) Was the information clear and understandable?

c) Was the information accessible to you and readable?

d) What was most and least helpful in this section?

Regarding the section ‘About treatment’, was there:

a) Enough information?

b) Was the information clear and understandable?

c) Was the information accessible to you and readable?

d) What do you think about the information provided about treatment with the service?

e) What was most and least helpful in this section?

Overall

1. Do you feel you would need additional resources e.g. video/audio files to supplement the strategies included? If so, why?

2. Was there anything that was missing from the booklet?

Appendix P: SIP Interview schedule for Birth Trauma Service user's

Thank you for speaking to me today. We are currently looking at creating an information source, for example it could be a booklet, for SU's within our Birth Trauma Pathway as we are aware that we currently don't have information tailored to Birth Trauma. We would like to get your feedback about what you think might be helpful for us to include within this information and what it should look like. This interview will last approximately 30 minutes and I would like to audio record our conversation. The recording will be typed up and then deleted and anything you say will be anonymous.

1. How does the idea of an information booklet sound to you?

2. Have you have received any information so far in written form? And if so how did you find it?

3. What did you find most and least helpful about the information you have received? And why?

4. What would you have liked to change about the information you received?

5. What written information would you have liked to receive from the birth trauma service? And how would this information have helped you?

6. What would this information look like? What format would it be in? (e.g. online, booklet, leaflet, pdf or physical?)

7. A) If it were to have different sections, what topics would it be helpful to include?

B) Some of the ideas we have had are _____, for example _____. Would you find this helpful? And if so what would you like it to include in this section? What is most useful?

- Trauma therapy and what to expect (different phases, length, knowing it will be up and down, tips to look after yourself)
- Coping strategies (breathing exercises, grounding techniques, imagery, self-compassion, positive phrases)
- Help and resources (books, apps, websites, helplines)
- Psychoeducation around PTSD and birth trauma (how affects brain, symptoms, normalisation)
- Having it in different formats (paper, electronic)
- Service information (staff, services offered, satisfaction with service, demographics)
- Personal stories (people who have PTSD, after treatment)
- How families and friends can help (section for them, exercises to do together)

8. When would be the best time to receive this information? (e.g. before assessment, after assessment, before treatment, during treatment?) And why?

9. Is there any information that would not be helpful to receive? And why?

10. How long should the booklet be? How many pages? How much detail should there be in each section?

11. What type of pictures would feel appropriate? (e.g. real, animation or symbols, neutral pictures?)

12. Would you like to be involved in co-designing the booklet? Or to contribute your personal story?

13. Is there anything else we haven't spoken about or any other ideas you have for the information source?

Appendix Q: SIP Additional qualitative questions for the booklet feedback forms

What did you find helpful about the information?

What did you find unhelpful about the information?

Is there anything else you would have liked to be included?

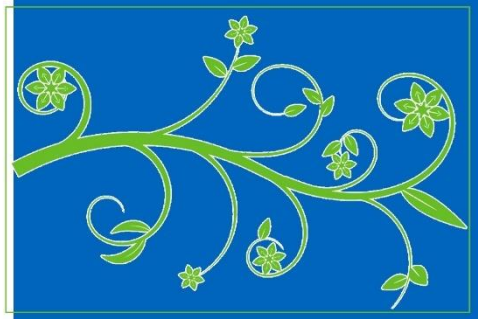
Is there anything else that could have helped to improve the information you received?

Thank you very much for taking the time to complete this questionnaire!

Appendix R: SIP Birth Trauma booklet

NHS
Berkshire Healthcare
NHS Foundation Trust

Perinatal
Post-traumatic Stress Disorder



Produced by the Berkshire Traumatic Stress Service

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The Birth Trauma Pathway

Who are we?

Thank you for coming to meet us!

It's great you took this first step and have opened this booklet.

We are a **team of Psychologists and Cognitive Behavioural (CBT) Therapists,** who work for the **'Birth Trauma Pathway'** at the Berkshire Traumatic Stress Service.

The Birth Trauma Pathway was opened in 2016, and is a service that provides **psychological therapy** for women who have experienced difficult childbirths and are struggling with **perinatal Post-Traumatic Stress Disorder (PTSD).** Birth trauma is sometimes also referred to as perinatal trauma.

These are the people you might meet:



Dr Martha Nicholson

Deputy Service Lead / Clinical Psychologist



Dr Rosalind Brock

Team Lead / Clinical Psychologist



Dr Aimee Mckinnon

Clinical Psychologist



Colleen Cooper

Cognitive Behavioural Therapist (CBT)



Helen Jehu

Cognitive Behavioural Therapist (CBT)



Natalie Maine

Assistant Psychologist

What now?

⇒ If we think this is **not the right service** for you, we will discuss this with you and **help you to make a referral.**

⇒ **If it is, you will be placed on to our waiting list for treatment**. Sometimes this can take around 6 months and can feel like a long time. We recommend reading this booklet and practicing the coping strategies included to help manage your symptoms.

When you start treatment, you might be doing a range of **group therapies** where you will **meet other people with similar experiences** to you, as well as **individual therapy**.

This will take place either online or face-to-face in our service at:

Erlegh House,
Whiteknights Campus,
University of Reading,
RG6 6BZ







Treatment

Phase One— Psychoeducation & Compassion

We'll help you better understand Perinatal PTSD, manage your symptoms and learn ways to be more compassionate to yourself, which can help with feelings of blame, shame and self-criticism. This phase may be done individually or in a group and is roughly 12 sessions. Groups last 2 hours and are with around 8 women who all have Perinatal PTSD.

Phase Two— Memory Reprocessing

This involves you meeting for sessions individually with your therapist. It helps you to understand your experiences and process your trauma memories in a safe environment. Individual therapy lasts on average 12 sessions, although more or less may be required. See types of therapies on the next page.

Phase Three— Reclaiming your Life

This phase will be completed within your individual therapy. You and your therapist will think together about what's important to you, how you can reconnect with your values and think about goals you hope to achieve in the future and how to get there.

Individual therapies

When you get to Phase Two, you will meet your individual therapist. Together, you will decide which type of trauma therapy would work best for you. This is also known as 'memory reprocessing'.

There are 2 types:

1

Trauma-Focused Cognitive Behavioural Therapy

Trauma-focused CBT helps you to understand how your past shapes how you think, feel and respond to your trauma. It also involves you describing the event to help your brain to process what happened and reduce your symptoms.

2

Eye Movement Desensitisation and Reprocessing

EMDR involves using bilateral stimulation (e.g. eye movements, tapping or sounds) while recalling the traumatic event. This is intended to create a similar effect to the way your brain processes memories while you are asleep.

Therapy is a journey and is often filled with 'ups and downs'. Sometimes people can find themselves feeling tired or struggling after sessions. This is completely normal. Our service users have said that it feels worth it in the end to be able to deal with their birth experience and move forward with their lives.



Our service users' stories

"Receiving treatment for perinatal PTSD saved my mind"



I don't say this lightly, but receiving treatment for perinatal PTSD saved my mind. It is the hardest and yet the kindest thing I have ever done for myself and, in its own way, can be likened to a kind of labour. I knew I had had a difficult birth with my son and experienced all of the after effects of that; but when the physical scars left, I carried the emotional and mental ones -- the triggers which impacted me as physical sensations, the deep shame, anger at what I experienced during labour and fury at others for being spared what I had gone through. Why me? When I had had enough of my mind not being my own, when I realised other elements within my life were out of control, I decided to seek help and the help I was given enabled me to take back my mind and my life. I cannot commend the therapists who helped me enough; without their knowledge, kindness and compassion, I would not be the whole and happy person I am today.

"Having another baby... couldn't have been more different"



I was diagnosed with PTSD 6 months after the birth of my first baby. I had spent months suffering with intrusive thoughts and flashbacks, my anxiety was so bad I would barely sleep and it was affecting my relationships and day-to-day life. I felt as though I couldn't enjoy my son due to fear of something awful happening to him. I had always wanted a big family but the thought of another birth terrified me. I found out I was pregnant 9 months post partum, I quickly started CBT therapy and began to process the trauma. I had my second baby 18 months after my first, I had been able to plan a birth I was very much in control of and comfortable with. The morning of the birth the theatre was calm, everyone seemed happy and there were no unplanned surprises. The staff talked me through everything and I was able to have a positive birth experience. I never thought I'd be able to enjoy having another baby however it couldn't have been more different. The process was calm and controlled, I was able to hold my baby and have experiences that I didn't get first time round. I felt happy and excited and had the 'rush of love'. Having a second baby was a difficult decision whilst suffering with PTSD but alongside therapy and support it really has been healing. I no longer suffer with flashbacks, my intrusive thoughts are minimal and I am able to use techniques to control them. I feel as though I am really able to enjoy our family.

"My dreams started to change, they were less upsetting..."



My sons' birth was truly the worst day of my life. The event itself was terrifying, traumatic and not at all what I hoped or dreamt of after a very long struggle to conceive. I really hoped things would settle, but instead it occupied all my thoughts. It popped into my mind all the time. It made my heart pound like it was happening again; I would cry hysterically and the anger I felt for the mistakes made was uncontrollable. At night I would have nightmares of his birth, I would wake dripping in sweat and feeling incredibly frightened and disorientated. I would finally fall back asleep just to have the same dream over and over. This in itself was completely exhausting, but add in a new-born and everything that comes with it and I was really struggling. I would get a lot of people telling me 'in my day we just had to put up with it' or 'you just have the baby blues'.

I was invited to group PTSD sessions. I was initially worried, I thought it would be like AA meetings... but it absolutely isn't! I was in a group of about 8 women, who were all experiencing PTSD due to a traumatic birth (we didn't talk through our stories). It never felt awkward or like you were under pressure to speak up.

In my one-to-one therapy, my psychologist got to know me really well, talking through all major life events good and bad. Understanding how my mind works and how I think and feel. In my first session I felt silly and like I couldn't do it. After a good chat with my psychologist, I pushed on and things started to shift. My dreams started to change; they were less upsetting and more like watching a movie of something that happened. I didn't feel emotionally connected to them anymore. I felt I could talk about my birth without hysterically crying. I still felt anger for the mistakes made, but this was not all consuming and was more of a realistic anger. I no longer felt overwhelming grief/self blame for my labour experience.

I really want to say; I promise you it gets better, and I promise you the psychologists who are in this line of work are trustworthy, caring and want to help you to get your life back. You can and will feel better. I can now see myself trying for another baby in the future with a little more work which is something I never thought I would be able to say.

Tips and quotes from previous service users

- It's okay to feel the way you feel whether that's angry or sad or cheated.
- It is really important to look after yourself and ask for help if you need it.
- It is possible to get your life back! Through the treatment, you can learn how to live with it, and can get better from it.
- Therapy will be up and down but it will be worth it in the end.
- It's not an easy path, but that's normal and expected and other people feel that way as well. But you come out the other side and it was worthwhile.
- It's normal and it can happen...It's nothing you yourself have done! It is NOT your fault!
- Don't be afraid it's really helpful!
- To get 100% from it, you need to give 100% to it.
- It is hard to make yourself go, but very worth it. It will 100% help you to understand PTSD more.
- You are NOT alone!
- I thought there's a time line for getting over this. But there isn't, there are various forms that your trauma can take.
- You are NOT an imposter! It is not just military veterans who get PTSD. Your trauma is valid!
- One thing that really helped me was doing the group therapy and knowing that other people were experiencing it.
- Delete social media accounts that make you feel bad and try to avoid googling things.

What is Perinatal PTSD

Perinatal PTSD symptoms

While everyone reacts differently, there are 4 main symptoms:

Re-experiencing:



- Having **nightmares**
- Having **upsetting memories** of the event that suddenly pop up when you don't want them
- Having '**flashbacks**' where you feel like it is happening again now
- Feeling **intense emotions** like shame, guilt, anger, sadness or fear when reminded of the birth
- Feeling **similar body sensations** to the time of the trauma

Avoidance:



- **Trying not to think about** or not remembering parts of your birth
- Trying to **push your feelings about it away**
- **Staying away from places or things that remind you** of the event (e.g. hospitals, doctors)
- Feeling like you **don't want to be near your baby or near other people who have babies**
- **Avoiding intimacy or being around** other people

Hyperarousal:



- Feeling constantly **on edge or 'alert'**
- Being **irritable or easily angered**
- Finding it **difficult to concentrate** on things
- Being easily startled or **jumpy**
- **Worrying something terrible is going to happen** to you or your baby
- Having **trouble sleeping**

Negative thoughts & Feelings:



- Feeling **depressed**
- **Guilt, self-blame** or thinking you did something wrong
- Feeling **angry at other people** for what happened
- Feeling **ashamed** or hiding how you feel
- Feeling **distrustful of medical / healthcare professionals**

Difficulties bonding

After experiencing a traumatic birth, many women often find that it can impact on their bonding with their baby. **This is normal** and happens because you are trying so hard to cope with managing your PTSD day-to-day and **your brain is in survival mode** as it thinks you are under threat. Sometimes **your baby even serves as a difficult reminder of the trauma**.

Myths that are not true!

- You should feel a bond immediately when they are born
- It can only happen if you have a 'natural' childbirth
- You can only bond if you breastfeed your baby
- It only happens if you have skin to skin contact immediately
- If you don't bond with your baby straight away you never will

Common struggles after birth trauma:

- Struggling to breast feed / baby struggling to latch on
- Feeling resentful of your baby
- Not wanting to be around your baby
- Not feeling like you have an emotional connection with your baby
- Not wanting to leave your baby alone with other people
- Feeling anxious or struggling to be away from your baby
- Feeling like your baby isn't yours
- Your baby seems to prefer their dad
- Feeling unable to calm or soothe your baby

Bonding can improve over time. The best thing you can do to help is to first look after yourself!

What causes it?

Perinatal PTSD is a **normal reaction** to an **abnormal situation!**

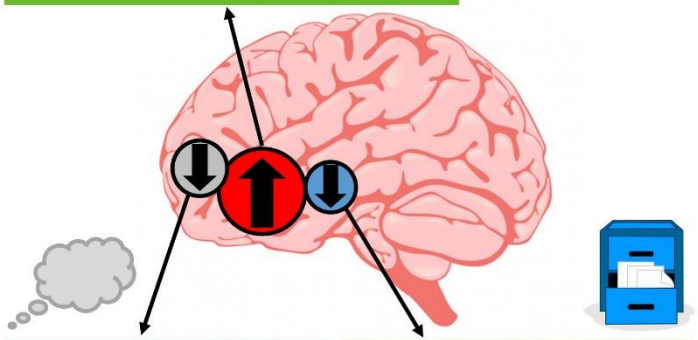
Although every experience is different and people respond in different ways, some of the things that can cause Perinatal PTSD are:

- Experiencing a **long or painful labour**
- Having to be **induced**
- Feeling **out of control, trapped or helpless**
- **Emergency caesareans**
- **Complications or having to have medical interventions** during childbirth
- **Poor communication** by staff / lack of information or explanations
- **Feeling you didn't have any say** in your medical treatments
- Having a **still birth**
- Birth of a **baby who experiences a disability** because of the birth
- **Fearing for you or your baby's safety**
- **Poor quality of care,** e.g. a lack of dignity or respect
- **Blood loss**
- Your baby staying in a **special care or intensive care unit**
- **Previous traumatic experiences** in your life

Why does PTSD happen?

PTSD happens when someone experiences a traumatic event and the **brain is not able to process what happened** and store it as a 'past memory'. This leads to the 're-experiencing' symptoms and constant sense of threat that people feel.

The **"Amygdala"** is our brain's **alarm system.** When there is a threat, the amygdala gets activated and triggers an automatic response called the **"fight or flight response".** In PTSD, this part of the brain reacts too strongly.



The **"Prefrontal Cortex"** helps us to think and regulate our emotions. During a trauma, this part of the brain becomes **less active,** so is **less able to calm down the 'fight or flight' response**.

The "Hippocampus" is the part of the brain where memories are stored and filed away with a timestamp so we know they happened in the past. Trauma interrupts this process and **stops the hippocampus from storing this memory away.**

IT IS NOT YOUR FAULT !

15

Managing your symptoms

16

Breathing exercises

When we get anxious, our breathing gets fast and shallow. Trying out breathing exercises can help to calm you and trick your brain into thinking you are more relaxed.

Soothing rhythm breathing

- Find somewhere quiet to sit
- Breathe in for a count of four
- Breathe out for a count of four
- Keep the rhythm the same
- Repeat for a few minutes

1, 2, 3, 4 ...

1, 2, 3, 4 ...



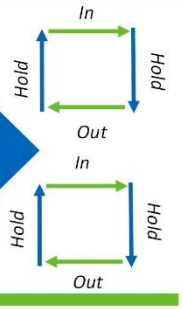
Coloured breathing

- Pick a colour that represents tense feelings
- Imagine breathing out air that colour
- Pick a calm, soothing colour
- Imagine breathing in air that colour
- Repeat for a few minutes



Square breathing

- Look at a square shape or draw one
- Trace the first line and inhale
- Trace the second line while holding your breath
- Trace the third line and exhale
- Trace the fourth line and hold



Sensory grounding

When people experience PTSD, they can get flashbacks or feel as if the trauma is happening again. Their minds take them back to the past.

So it can help to **describe your senses to "ground" yourself in the present moment** instead.

5 Things you see



4 Things you feel



3 Things you hear



2 Things you smell



1 Thing you taste



Different coping strategies work for different people. Try out these different ideas to find what helps you. And remember you don't have to do it all at once!

Distinguishing then vs. now

Another way to ground yourself in the present is to draw out the differences between then versus now to help your brain realise you are safe now. **Use the space below to write out some of the differences between then and now.**

	Then (at the time of the trauma)	Now
What can you see?		
What can you hear?		
What can you feel?		
What can you smell?		
What can you taste?		
What can you do / what can you move?		

Looking after yourself

Use relaxing oils, candles and incense to calm you



Take a relaxing bath



Listen to music



Go for a walk in nature



Do activities you enjoy



Try to get enough sleep



Talk to the people you love and let them know how they can help you



Take regular breaks and allow yourself time to relax



Try to get a balanced diet



Try to exercise; e.g. yoga, stretches

Listen to guided relaxation or meditation



Imagine a safe, calm and relaxing place

Positive phrases

Everything will be okay. This will pass.

Sometimes the people around you won't understand your journey. They don't need to, it's not for them.

There is hope, even when your brain tells you there isn't.

Mental health problems don't define who you are. They are something you experience. You walk in the rain and you feel the rain, but you are not the rain.

You don't have to be positive all the time. Having feelings doesn't make you a negative person. It makes you human.

Sometimes you need to fit your own oxygen mask first. You can't help others if you're running on empty.

One small crack does not mean that you are broken, it means that you were put to the test and you didn't fall apart.

Write your own:

Ideas to help you bond with your baby

Bonding can improve over time. You can try grounding exercises with your baby, or use these exercises to help you to bond and connect with your baby.



Massage your baby with scented oils or creams



Listen to your baby's heart beat



Make noises with different objects



Look at all the different colours, shapes and textures on your baby



Close your eyes and try to feel all of the different parts of your baby



Tell your baby 10 things you love about them



Dance with your baby



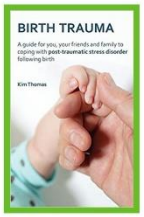
Mimic your baby's sounds and movements



Try perinatal yoga with your baby

Support and Resources

Books



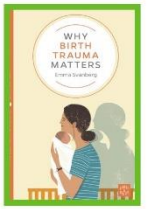
Birth Trauma

by Kim Thomas



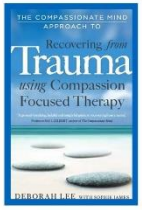
How to Heal a Bad Birth

by Melissa Brujin and Debbie Gould



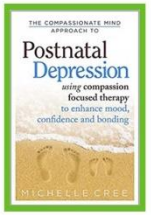
Why Birth Trauma Matters

by Emma Svanberg



The Compassionate Mind Approach to Recovering from Trauma

by Deborah Lee



The Compassionate Mind Approach to Perinatal Depression

by Michelle Cree

Apps

Nourish—Bite-sized mental health and well-being strategies for mothers.

Peanut— An app to help you find and connect with other mums in your area, share advice and discuss different topics.

Happify— An app using cognitive behavioural therapy strategies and mindfulness to help you manage stress and low mood. It offers a range of exercises and activities.

MamaMend— A week-by-week guide to recovering from childbirth.

Headspace— Provides guided meditation and mindfulness exercises.

Calm— An app to help with sleep, meditation and relaxation.

PTSD Coach— Helps you learn about and cope with symptoms of PTSD.

PTSD Family Coach— An app to support family members of individuals with PTSD.

Websites

Mental health support:

Mind Charity— www.mind.org.uk

PANDAS Foundation— pandasfoundation.org.uk

Association of Postnatal Illness— apni.org

Maternal Mental Health Alliance— maternalmentalhealthalliance.org

The Birth Trauma Association- www.birthtraumaassociation.org.uk

PTSD UK—www.ptsduk.org

Supporting a better birth:

Make Birth Better— makebirthbetter.org

AIMS: For a better birth— www.aims.org.uk

Birth Rights— www.birthrights.org.uk

Perinatal loss support:

Miscarriage Association— miscarriageassociation.org.uk

Petals: The baby loss counselling charity— petalscharity.org

Sands: Stillbirth & neonatal loss charity— www.sands.org.uk

Cruse Bereavement Care— www.cruse.org.uk

Coping strategies:

Soothing Rhythm Breathing— www.youtube.com/watch?v=q06YIWCR2Js

Progressive Muscle Relaxation— talkingtherapies.berkshirehealthcare.nhs.uk/our-therapies/stress-less-workshops/

Guided Imagery— vimeo.com/222830620

10-minute meditation— www.youtube.com/playlist?list=PLgdxvG3UIbidz8n_I3rZdcAADnDJ6NFHO

Helplines

NHS

Speak to your GP

Phone 111: 24/7 helpline if you need advice or urgent mental health support.

Berkshire Healthcare Crisis Resolution and Home Treatment team: Offers 24/7 support for people in crisis in Berkshire. Tel: **0300 365 9999**

Visit your local Accident & Emergency service: if there is a significant or immediate risk to you or someone else.

Other Services

The Samaritans: Offers 24 hour support over the phone for people experiencing feelings of distress or despair. Tel: **116 123**

Mind: Offers support over the phone from 9am-6pm Mon-Fri for people needing help with mental health problems, medication, and advocacy. Tel: **0300 303 5999**

Citizens Advice Bureau: Provides support and advice on benefits, work, finances, housing, law and courts, immigration and health Tel: **03444 111 444**



You are not alone!

NHS
Berkshire Healthcare
NHS Foundation Trust

Created by Rachel Ashwick in collaboration with service users from The Birth Trauma Pathway within The Berkshire Traumatic Stress Service.

Appendix S: SIP Booklet for Friends and Family

NHS
Berkshire Healthcare
NHS Foundation Trust

Birth Trauma

Information for Friends & Family Members

Produced by the Berkshire Traumatic Stress Service

What is Birth Trauma?

Birth Trauma is a term used to describe the after effects of a difficult birth. It often happens when a woman has experienced:

- A **long or painful labour**
- Had to be **induced**
- Felt **out of control, trapped** or **helpless**
- Had an **emergency caesarean**
- Had **complications** during childbirth
- Had to have **medical interventions**
- **Poor communication** by staff / lack of information or explanations
- **Feeling you didn't have any say** in your medical treatments
- Had a **miscarriage** or **still birth**
- The birth of a **baby who experiences a disability** because of the birth
- **Fear for her or her baby's safety**
- **Poor quality of care,** e.g. a lack of dignity or respect
- **Blood loss**
- Her baby having to stay in a **special care or intensive care unit**
- **Previous traumatic experiences** in her life

34% of all women experience birth as traumatic

2

Perinatal PTSD symptoms

After a birth trauma, some women develop PTSD. There are 4 main symptoms:

Re-experiencing:



- Having **nightmares**
- Having **upsetting memories** of the event that suddenly pop up when they don't want them
- Having **'flashbacks'** where they feel like it is happening again now
- Feeling **intense emotions** like shame, guilt, anger, sadness or fear when reminded of the birth
- Feeling **similar body sensations** to the time of the trauma

Avoidance:



- **Trying not to think about** or not remembering parts of their birth
- Trying to **push their feelings about it away**
- **Staying away from places or things that remind them** of the event (e.g. hospitals, doctors)
- Feeling like they **don't want to be near their baby or near other people who have babies**
- **Avoiding intimacy or being around** others

Hyperarousal:



- Feeling constantly **on edge or 'alert'**
- Being **irritable or easily angered**
- Finding it **difficult to concentrate** on things
- Being easily startled or **jumpy**
- **Worrying something terrible is going to happen** to them or their baby
- Having **trouble sleeping**

Negative thoughts & Feelings:



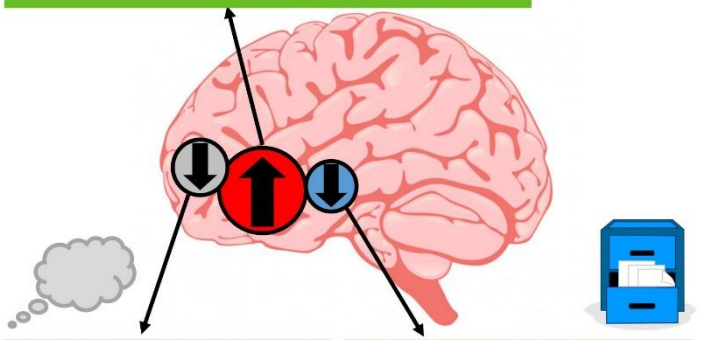
- Feeling **depressed**
- **Guilt, self-blame** or thinking they did something wrong
- Feeling **angry at other people** for what happened
- Feeling **ashamed** or hiding how they feel
- Feeling **distrustful of medical / healthcare professionals**

Why does PTSD happen?

PTSD happens when someone experiences a traumatic event and the **brain is not able to process what happened** and store it as a 'past memory'. This leads to the 're-experiencing' symptoms and constant sense of threat that people feel.

The **"Amygdala"** is our brain's **alarm system.** When there is a threat, the amygdala gets activated and triggers an automatic response called the **"fight or flight response".** In PTSD, this part of the brain reacts too strongly.





The **"Prefrontal Cortex"** helps us to think and regulate our emotions. During a trauma, this part of the brain becomes **less active,** so is **less able to calm down the 'fight or flight' response**.

The "Hippocampus" is the part of the brain where memories are stored and filed away with a timestamp so we know they happened in the past. Trauma interrupts this process and **stops the hippocampus from storing this memory away.**

It is a normal reaction to an abnormal situation!

What can you do to help?

Women with perinatal PTSD often find it difficult to talk about how they are feeling or ask others for help.

Initiate conversations with them:

- Ask and acknowledge how they are feeling
- Just listen and try not to judge or blame them
- Ask what you can do to help them
- Ask about their sessions, what they covered and how they are feeling after
- Don't avoid the topic, talk about the birth with them but ask first how much they feel comfortable talking about
- Try not to take it personally if they snap or push you away

Give practical support:

- Help with tasks around the house to reduce demands on them
- Help with the baby to let them have a break
- Speak to other family members to let them know what they can do to help so they don't have to
- Offer to look after the baby or help them get to therapy sessions
- Give them time to relax after sessions
- Suggest spending some time together
- If they have a flashback, talking to them, remind them they are safe, what day it is and where they are

Women with perinatal PTSD often experience a lot of stigma and find that others don't understand birth trauma or even minimise their experiences.

Things that are often unhelpful for others to say:

- But your baby is fine now
- We just got on with it back in my day
- This never used to be an issue
- Loads of women give birth every day and they don't have PTSD
- You look fine though
- It wasn't that bad though
- Do you really need therapy? Or do you really need my help?
- Just suck it up
- You're asking for a lot
- You're not a military veteran so you can't have PTSD
- Others talking about their positive birth experiences
- Others asking if they remember their births or asking intrusive questions about it

Activities to do together



Talk about how you are both feeling



Read a book together



Listen to music



Go for a walk in nature



Watch a movie

Practice breathing exercises and other strategies



Cook or bake together



Go to a restaurant



Go through the therapy work booklets



Exercise together

Listen to guided relaxation



Take a relaxing break or trip

7

Looking after yourself

Use relaxing oils, candles and incense to calm you



Take a relaxing bath



Listen to music



Go for a walk in nature



Do activities you enjoy



Try to get enough sleep



Talk to the people you love and let them know



Take regular breaks and allow yourself time to relax



Try to get a balanced



Try to exercise; e.g. yoga, stretches



Listen to guided relaxation or meditation



Imagine a safe, calm and relaxing place

8

Accessing your own support

NHS & Helplines

Speak to your GP

Self-refer online or by phone to Talking Therapies: Tel: **0300 365 2000**

Phone 111: for urgent mental health support.

Berkshire Crisis Resolution and Home Treatment team: for people in crisis in Berkshire. Tel: **0300 365 9999**

Visit your local Accident & Emergency service: for emergencies or immediate risks

The Samaritans: for people in distress or despair. Tel: **116 123**

Citizens Advice Bureau: advice on benefits, work, finances, housing, law and courts, immigration and health Tel: **03444 111 444**

Charity websites

From Dads to Dads—www.fromdadstodads.org.uk

The Birth Trauma Association—www.birthtraumaassociation.org.uk

PTSD UK—www.ptsduk.org

Mind Charity— www.mind.org.uk

Petals: The baby loss counselling charity—petalscharity.org

Sands: Stillbirth & neonatal loss charity—www.sands.org.uk

Cruse Bereavement Care—www.cruse.org.uk



NHS
Berkshire Healthcare
NHS Foundation Trust

Created by Rachel Ashwick in collaboration with service users from The Birth Trauma Pathway within The Berkshire Traumatic Stress Service.

Appendix T: SIP Lay summary

Improving patient information within the Berkshire Traumatic Stress Service's Birth Trauma pathway

Project Summary

This is a summary of the project we did to help you understand why we did, how we went about it and what we found.

What was this study about?



This study took place in a specialist psychological trauma service for women who have experienced traumatic childbirths. We know that some women develop a condition called Post-traumatic Stress Disorder (PTSD) after a traumatic birth, where they feel like they are re-living the experience, can't get rid of memories of it and feel anxious and on edge. Women who have experienced traumatic births often feel that others don't understand their struggles, judge them or unintentionally add to their difficulties which makes it hard for them to seek help. This means that a lot of women don't know what PTSD is or know how to manage their symptoms. Therefore, it is important for women to be given information to help them better understand their difficulties, know they are not alone and are not to blame, and have some coping strategies to help them.

This study aimed to find out more about women's views of the existing information they have been given, as well as the type of information women wanted to receive to help to make a booklet to be given out by the service.

What did we do?





As a new service, there was not much information already available to women. So first we started by interviewing 5 women in the other trauma pathway about what information they liked and didn't like. This helped us to give ideas to the women in the birth trauma pathway. We then spoke to 8 women who had had traumatic births to see what they thought of the existing information and what they would like to receive instead using the ideas provided. With the help of several women, we designed a booklet for the service to use. We then looked at data the service had collected on patient satisfaction and attendance so the service can compare this to new data once they have started rolling out the booklet.

What did we find?

We found that women who were already using the service were neither satisfied nor unsatisfied with the current information given. Women did not think they had the information at the right time and said they would like it after their assessment with the service and many said they felt they did not get help quickly enough. In addition, data showed that three women dropped out of treatment around the assessment phase and 22 sessions were missed over an 18-month period.

The 8 women that were interviewed said they would like the booklet to include information about traumatic births, what PTSD is, what treatment would look like, what coping strategies

they can use to help manage their symptoms. They also said they would like it to address issues of stigma by normalising their experiences, providing information for friends and family members, and giving stories from other women so they would feel less alone in their struggles. In addition, women said they would like the booklet to include shapes instead of real photos, have hyperlinks to websites, and not have too much text so it doesn't feel too overwhelming for them.



Conclusion and next steps

The recommendations from the interviews were used to develop a booklet which has been shared with the service. Data about patient satisfaction, attendance and feedback on the booklet and how to improve it further will continue to be collected over the next 18 months and compared to the already collected data from before.



Appendix U: SIP Author Guidelines for The Journal of Prenatal and Perinatal

Psychology and Health

Guidelines for Contributing Authors

Manuscripts

The Journal of Prenatal and Perinatal Psychology and Health accepts only original material that is not under consideration by any other publications. Articles should be word-processed and transmitted electronically as a Word document to the Editor. The Editor reserves the right to edit manuscripts for length, clarity, and conformity with the journal's style. The author should retain his/her copy. American spelling should be used. The paper should be between 2,000 and 8,000 words with a 100–word abstract and at least three keywords. (See further guidelines for submitting a manuscript in the current APA Publication Manual (2020), specifically, "Author Responsibilities."

The journal is interested in publishing theoretical and empirical articles utilizing data gained from clinical work, experimental research, case studies, and self-report. Among the areas of special interest are:

- Psychological factors that affect conception, pregnancy, labor, birth and the postpartum period;
- The reciprocal mechanisms of interaction between the pregnant mother and her unborn and sentient child and the mother and her newborn;
- The influence of the family, society, and the environment on the pregnant mother and her unborn child;
- Evidence-based measures that will improve the emotional well-being of mothers, fathers, and newborns;
- The psychological effects of medical technology during conception, pregnancy, labor, and birth on all parties concerned;
- Methods of prevention and intervention/resolution of prenatal and perinatal traumas with children and adults;
- Interfaces between prenatal and perinatal psychology and medicine, genetics, developmental psychology, anthropology, ethics, and the law.

Illustrations, Figures and Tables

All illustrations and tables should be included separately from the manuscript (in a separate document) and should be clearly identified in Arabic numerals, showing which is the top of the illustration if this is not obvious. Tables must supplement the text without duplicating it. **Refer to APA publication manual for detailed instructions on tables and figures.** Illustrations should either be black-and-white glossy photographs or India ink drawings. Tables, figures, and illustrations should include an appropriate title and be in **jpg or png** file format. Keep in mind the 6x9 finished size of journal pages.

Other Requirements

Please include 50-100 word brief bio (total for all authors), as well as complete contact information for all authors.

APA Style

Formatting and referencing must follow APA style. References should be limited to work cited in the article. All cited material should be on the reference list.

American Psychological Association (2020). *Publication manual of the American Psychological Association* (7th ed.). Washington, DC: Author.

Appendix V: TDRP Confirmation of NHS ethics approval

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Miss Rachel Ashwick
Trainee Clinical Psychologist
Oxford Health NHS Foundation Trust
Oxford Institute of Clinical Psychology Training & Research
Isis Education Centre, Warneford Hospital
Headington, Oxfordhire
OX3 7JX

Email: approvals@hra.nhs.uk
HCRW.approvals@wales.nhs.uk

18 October 2021

Dear Miss Ashwick

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**The role of mental defeat in interpersonal and non-interpersonal traumas**
IRAS project ID:	**293056**
Protocol number:	**PID 15445**
REC reference:	**21/NW/0265**
Sponsor	**Oxford Health NHS Foundation Trust**

I am pleased to confirm that HRA and Health and Care Research Wales (HCRW) Approval has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, in line with the instructions provided in the "Information to support study set up" section towards the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?
HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report

(including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?

The standard conditions document "*After Ethical Review – guidance for sponsors and investigators*", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **293056**. Please quote this on all correspondence.

Yours sincerely,
Amber Ecclestone

Approvals Specialist

Email: approvals@hra.nhs.uk

Copy to: *Ms Brandy Coote*

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	*Version*	*Date*
Contract/Study Agreement template [PIC agreement]	V1.0	30 May 2021
Copies of materials calling attention of potential participants to the research [Study poster]	V1.0	28 May 2021
Copies of materials calling attention of potential participants to the research [Communication to charities]	V1.0	19 December 2020
IRAS Application Form [IRAS_Form_14072021]		14 July 2021
Letter from sponsor [Sponsorship approval]	V1.0	05 July 2021
Non-validated questionnaire [Demographics questionnaire]	V1.0	28 May 2021
Other [Response to REC provisional outcome]	V1.0	29 September 2021
Participant consent form [Consent form]	V2.0	29 September 2021
Participant consent form [CLEANED Consent form]	V2.0	29 September 2021
Participant information sheet (PIS) [Participant Information Sheet]	V2.0	29 September 2021
Participant information sheet (PIS) [CLEANED Information sheet]	V2.0	29 September 2021
Participant information sheet (PIS) [Participant Debrief Form]	V2.0	29 September 2021
Participant information sheet (PIS) [CLEANED Participant Debrief Form]	V2.0	29 September 2021
Research protocol or project proposal [Research protocol]	V1.0	30 May 2021
Summary CV for Chief Investigator (CI) [CI_RachelAshwick_CV]	1	16 December 2020
Summary CV for student [PI CV]	V1.0	19 December 2020
Summary CV for supervisor (student research) [Supervisor CV]	V1.0	01 October 2020
Summary CV for supervisor (student research) [Supervisor CV]	V1.0	01 February 2021
Validated questionnaire [Validated questionnaires]	1	19 December 2020

IRAS project ID	293056

Information to support study set up

The below provides all parties with information to support the arranging and confirming of capacity and capability with participating NHS organisations in England and Wales. This is intended to be an accurate reflection of the study at the time of issue of this letter.

Types of participating NHS organisation	Expectations related to confirmation of capacity and capability	Agreement to be used	Funding arrangements	Oversight expectations	HR Good Practice Resource Pack expectations
This is a single site study sponsored by the participating NHS organization therefore there is only one site type. There are also Participant Identification Centres.	**Research sites** This is a single site study sponsored by the participating NHS organisation. You should work with your sponsor R&D office to make arrangements to set up the study. The sponsor R&D office will confirm to you when the study can start following issue of HRA and HCRW Approval. **PICs** PIC activities should not commence until a PIC Agreement is in place. HRA and HCRW recommend use of the standard Participating NHS Organisation to PIC agreement available here.	**Research sites** This is a single site study sponsored by the participating NHS organization therefore no agreements are expected. **PICs** HRA and HCRW recommend use of the standard Participating NHS Organisation to PIC agreement, available https://www.myresearchproject.org.uk/help/hlpsitespecific.aspx.	No application for external funding.	**Research Sites** A Principal Investigator should be appointed at study sites **PICs** The Chief Investigator will be responsible for all study activities performed at PICs.	**Research sites** No Honorary Research Contracts, Letters of Access or pre-engagement checks are expected for local staff employed by the participating NHS organisations. Where arrangements are not already in place, research staff not employed by the NHS host organisation undertaking any of the research activities listed in the research application would be expected to obtain a Letter of Access based on standard DBS checks and occupational health clearance. **PICs** No additional arrangements will be necessary.

Other information to aid study set-up and delivery

This details any other information that may be helpful to sponsors and participating NHS organisations in England and Wales in study set-up.
The applicant has indicated they do not intend to apply for inclusion on the NIHR CRN Portfolio.

Health Research Authority
North West - Greater Manchester East Research Ethics Committee
3rd Floor, Barlow House
4 Minshull Street
Manchester
M1 3DZ

Please note: This is the favourable opinion of the REC only and does not allow you to start your study at NHS sites in England until you receive HRA Approval

14 October 2021

Miss Rachel Ashwick
Trainee Clinical Psychologist
Oxford Health NHS Foundation Trust
Oxford Institute of Clinical Psychology Training & Research
Isis Education Centre, Warneford Hospital
Headington, Oxfordhire
OX3 7JX

Dear Miss Ashwick

Study title:	**The role of mental defeat in interpersonal and non-interpersonal traumas**
REC reference:	**21/NW/0265**
Protocol number:	**PID 15445**
IRAS project ID:	**293056**

Thank you for your response of 01 October 2021, to the Research Ethics Committee's (REC) request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Good practice principles and responsibilities

The UK Policy Framework for Health and Social Care Research sets out principles of good practice in the management and conduct of health and social care research. It also outlines the responsibilities of individuals and organisations, including those related to the four elements of research transparency:

1. registering research studies
2. reporting results
3. informing participants
4. sharing study data and tissue

Conditions of the favourable opinion

The REC favourable opinion is subject to the following conditions being met prior to the start of the study.

Confirmation of Capacity and Capability (in England, Northern Ireland and Wales) or NHS management permission (in Scotland) should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements. Each NHS organisation must confirm through the signing of agreements and/or other documents that it has given permission for the research to proceed (except where explicitly specified otherwise).

Guidance on applying for HRA and HCRW Approval (England and Wales)/ NHS permission for research is available in the Integrated Research Application System.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of management permissions from host organisations

Registration of Clinical Trials

All research should be registered in a publicly accessible database and we expect all researchers, research sponsors and others to meet this fundamental best practice standard.

It is a condition of the REC favourable opinion that **all clinical trials are registered** on a publicly accessible database within six weeks of recruiting the first research participant. For this purpose, 'clinical trials' are defined as the first four project categories in IRAS project filter question 2. Failure to register a clinical trial is a breach of these approval conditions, unless a deferral has been agreed by or on behalf of the Research Ethics Committee (see here for more information on requesting a deferral:

https://www.hra.nhs.uk/planning-and-improving-research/research-planning/research-registration-research-project-identifiers/

If you have not already included registration details in your IRAS application form, you should notify the REC of the registration details as soon as possible.

Further guidance on registration is available at:
https://www.hra.nhs.uk/planning-and-improving-research/research-planning/transparency-responsibilities/

Publication of Your Research Summary

We will publish your research summary for the above study on the research summaries section of our website, together with your contact details, no earlier than three months from the date of this favourable opinion letter.

Should you wish to provide a substitute contact point, make a request to defer, or require further information, please visit:
https://www.hra.nhs.uk/planning-and-improving-research/application-summaries/research-summaries/

N.B. If your study is related to COVID-19 we will aim to publish your research summary within 3 days rather than three months.

During this public health emergency, it is vital that everyone can promptly identify all relevant research related to COVID-19 that is taking place globally. If you haven't already done so, please register your study on a public registry as soon as possible and provide the REC with the registration detail, which will be posted alongside other information relating to your project. We are also asking sponsors not to request deferral of publication of research summary for any projects relating to COVID-19. In addition, to facilitate finding and extracting studies related to COVID-19 from public databases, please enter the WHO official acronym for the coronavirus disease (COVID-19) in the full title of your study. Approved COVID-19 studies can be found at:
https://www.hra.nhs.uk/covid-19-research/approved-covid-19-research/

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

After ethical review: Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study, including early termination of the study

- Final report
- Reporting results

The latest guidance on these topics can be found at https://www.hra.nhs.uk/approvals-amendments/managing-your-approval/.

Ethical review of research sites

NHS/HSC sites

The favourable opinion applies to all NHS/HSC sites taking part in the study, subject to confirmation of Capacity and Capability (in England, Northern Ireland and Wales) or management permission (in Scotland) being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Non-NHS/HSC sites

I am pleased to confirm that the favourable opinion applies to any non-NHS/HSC sites listed in the application, subject to site management permission being obtained prior to the start of the study at the site.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Copies of materials calling attention of potential participants to the research [Study poster]	V1.0	28 May 2021
Copies of materials calling attention of potential participants to the research [Communication to charities]	V1.0	19 December 2020
IRAS Application Form [IRAS_Form_14072021]		14 July 2021
Letter from sponsor [Sponsorship approval]	V1.0	05 July 2021
Non-validated questionnaire [Demographics questionnaire]	V1.0	28 May 2021
Other [Response to REC provisional outcome]	V1.0	29 September 2021
Participant consent form [Consent form]	V2.0	29 September 2021
Participant consent form [CLEANED Consent form]	V2.0	29 September 2021
Participant information sheet (PIS) [Participant Information Sheet]	V2.0	29 September 2021
Participant information sheet (PIS) [CLEANED Information sheet]	V2.0	29 September 2021
Participant information sheet (PIS) [Participant Debrief Form]	V2.0	29 September 2021
Participant information sheet (PIS) [CLEANED Participant Debrief Form]	V2.0	29 September 2021
Research protocol or project proposal [Research protocol]	V1.0	30 May 2021
Summary CV for Chief Investigator (CI) [CI_RachelAshwick_CV]	1	16 December 2020
Summary CV for student [PI CV]	V1.0	19 December 2020
Summary CV for supervisor (student research) [Supervisor CV]	V1.0	01 October 2020
Summary CV for supervisor (student research) [Supervisor CV]	V1.0	01 February 2021
Validated questionnaire [Validated questionnaires]	1	19 December 2020

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website:
http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Learning

We are pleased to welcome researchers and research staff to our HRA Learning Events and online learning opportunities– see details at:
https://www.hra.nhs.uk/planning-and-improving-research/learning/

IRAS project ID: 293056 Please quote this number on all correspondence

With the Committee's best wishes for the success of this project.

Yours sincerely



On behalf of Mr Simon Jones
Chair

Email:gmeast.rec@hra.nhs.uk

Enclosures: "After ethical review – guidance for researchers" *[SL-AR2]*

Copy to: Ms Brandy Coote

Appendix W: TDRP Participant information sheet

PARTICIPANT INFORMATION SHEET V2.1. 22.11.2021

A study investigating the impact of trauma type on perceptions of defeat

My name is Rachel Ashwick and I am a Trainee Clinical Psychologist at the University of Oxford. This is an invitation to take part in a research study.

Before you decide, it is important that you understand why the research is being done and what it would involve for you. Please take time to read this participant Information Sheet, and discuss it with others if you wish. If there is anything that is not clear, or if you *would like more information, please ask by emailing me at: rachel.ashwick@oxfordhealth.nhs.uk*

WHAT IS THE PURPOSE OF THE STUDY?

Existing research shows individuals who have experienced interpersonal trauma (at the hands of someone else) may have greater symptoms of posttraumatic stress disorder (PTSD) compared to those who have experienced non-interpersonal trauma (e.g. accidents). There may also be a link between the number of traumas someone has experienced and their symptom severity.

This study aims to look at how the type and number of traumas someone has experienced may lead to them feeling defeated and struggling more with their PTSD symptoms.

Definitions below:

Examples of non-interpersonal traumas include car accidents, accidents at home or work, natural disasters, fires, a life threatening illness or injury, or a sudden accidental death of a loved one.

Examples of interpersonal traumas (caused by someone else) include assaults, abuse, being held in captivity, a violent death of a loved one (e.g. homicide) or being exposed to combat or war zones.

When we use the terms ‘defeat’ or ‘mental defeat’ we mean a sense of a failed struggle, feeling powerless or feeling that you have lost position, status or not achieved your goals.

WHY HAVE I BEEN INVITED?

You have been asked to participate in this project as you may have experienced a trauma in the past and have symptoms of PTSD.

WHO CAN TAKE PART?

We are looking for people who meet the following study criteria:

- Are aged 18 or above
- Have experienced either interpersonal or non-interpersonal trauma(s)
- Have symptoms of PTSD

DO I HAVE TO TAKE PART?

No, taking part is completely voluntary. The project has no impact on your clinical care. You have the right to withdraw from the project at any time without giving a reason, however, as the data collected is anonymous, you will be unable to withdraw from the study once you provided data for the online survey. All data provided in the online survey including incomplete data will be kept for 3 years in line with research data management policies.

WHAT WILL HAPPEN TO ME IF I DECIDE TO TAKE PART?

There will be no direct benefits to taking part in this project. You will be asked to complete a range of questionnaires on an online survey. Or if you would prefer to complete them by hand, we can post a copy of the questionnaires to you. The questionnaires should take approximately 30-45 minutes. The questionnaires will first ask you to tick which types of trauma you have experienced and rate your symptoms of PTSD – these questions which help check to see if you are eligible for the study. You will then be asked to rate how often you experience a range of thoughts about feeling defeated. No identifiable information will be asked at any point.

ARE THERE ANY DISADVANTAGES/RISKS FROM TAKING PART?

Taking part will take approximately 30-45 minutes of your time. Some of the questionnaires will ask you about your symptoms of PTSD, thoughts about how you may struggle with feeling defeated and the types of trauma you have experienced. This may be difficult to think about. You can either take a break from the study and return to it later, or withdraw from the study at any point. At the end of the study, or if you withdraw at any point during completion, you will provided with contact details of services and third-party organisations that will be able to offer support and guidance if you experience distress. If you withdraw from the study after having started the questionnaire, this data will be kept.

ARE THERE ANY BENEFITS OF TAKING PART?

There are no direct benefits to those participating. We hope that your participation in this will help us to better understand the impact of different types of traumas and recommendations of what treatment should be addressed.

WILL MY GENERAL PRACTITIONER/FAMILY DOCTOR (GP) BE INFORMED OF MY PARTICIPATION?

No.

WILL CHOOSING TO TAKE PART / NOT TAKE PART HAVE AN IMPACT ON MY CARE?

No. Choosing to take part or to not take part will have absolutely no impact on your care. This project is voluntary so it is completely your choice and you can withdraw at any time. In addition, the research is anonymous so there will be no way of telling if you did or did not complete it.

WHAT HAPPENS WITH MY INFORMATION?

Oxford Health NHS Foundation Trust is the sponsor of this research project. When we use the word 'we', this refers to Oxford Health NHS Foundation Trust.

How will we use information about you?

We will not need to use any personal information about you for you to take part in this research project. The questionnaire data will be anonymous and will be kept for 3 years after the study ends. We will only use information about you if you decide to email the researcher to request further information, ask for a paper copy of the questionnaire or ask for a copy of the study findings.

This information will include your name and contact details. People will use this information to respond to any questions you have, to send you a paper copy of the questionnaire or to send a summary of the research findings if you email to request this.

People who do not need to know who you are will not be able to see your name or contact details.

We will keep all information about you safe and secure.

Once we have answered your request, we will delete your personal data immediately. We will not be able to link you to any of your questionnaire answers and we will write our reports in a way that no-one can work out that you took part in the study.

What are your choices about how your information is used?

- You can stop being part of the study at any time, without giving a reason, but as we will not be able to link you to your questionnaire, we will keep information about you that we already have. If you have sent us your contact details for a request, we can delete these if you change your mind.

- We need to manage your questionnaire answers in specific ways for the research to be reliable. This means that we won't be able to let you see or change your questionnaire answers.

Where can you find out more about how your information is used?

You can find out more about how we use your information

- at www.hra.nhs.uk/information-about-patients/
- our leaflet available from https://www.oxfordhealth.nhs.uk/privacy/
- by asking or contacting one of the research team [rachel.ashwick@oxfordhealth.nhs.uk or Craig.Steel@oxfordhealth.nhs.uk]
- by sending an email to Oxford Health Data Protection Officer at mark.underwood@oxfordhealth.nhs.uk

If you wish to raise a complaint on how we have handled your personal data, you can contact our Data Protection Officer who will investigate the matter. If you are not satisfied with our response or believe we are processing your personal data in a way that is not lawful you can complain to the Information Commissioner's Office (ICO) (www.ico.org or 0303 123 1113).

WHAT IF THERE IS A PROBLEM?

As with every study, this study has gone through ethics approval and has been reviewed by people who have experienced PTSD following a trauma. Every care has been taken to ensure your safety during the course of the study.

If you have a concern about any aspect of this study, please contact Rachel Ashwick (Rachel.ashwick@oxfordhealth.nhs.uk ; +44 (0)1865 226 366) or Professor Craig Steel (Craig.steel@hoxfordhealth.nhs.uk ; +44 (0)1865 226 366) and we will do our best to answer your query. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with.

If you have any concerns, or wish to make a formal complaint, please contact the Patient Advice and Liaison Service (PALS) via:

https://www.oxfordhealth.nhs.uk/support-advice/pals/

Telephone number: 0800 328 7971

Email: PALS@oxfordhealth.nhs.uk

I'M INTERESTED. WHAT'S NEXT?

If you would like to participate, please go to https://psychiatryoxford.qualtrics.com/jfe/form/SV_0CYNHj2tYPRMmfs to complete the questionnaire. Or alternatively, if you would prefer a paper copy, please email Rachel Ashwick to arrange this.

The expected end date for this study is 30th June 2022. However, if we are able to collect 120 responses before this date, then the survey will be closed and will not be accessible online. Following this, the data will be analysed by Rachel Ashwick.

All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and been given favourable ethical opinion by the Research Ethics Committee.

CONTACT DETAILS

Rachel Ashwick, Trainee Clinical Psychologist, Oxford Institute of Clinical Psychology Training, Isis Education Centre, Warneford Hospital, Headington, Oxford. OX3 7JX

Rachel Ashwick, Trainee Clinical Psychologist	Rachel.Ashwick@oxfordhealth.nhs.uk

You can also speak to the research supervisor below:

Professor Craig Steel, Clinical Psychologist	Craig.Steel@Oxfordhealth.nhs.uk

Thank you for taking the time to read this information sheet and for your interest in the project!

Appendix X: TDRP Participant consent form

CONSENT FORM V2.1. 22.11.2021

A study investigating the impact of trauma type on perceptions of defeat

Thank you for your interest in our study. We are trying to investigate whether the type of trauma that an individual experiences influences their perception of feeling defeated and whether this affects the severity of their posttraumatic stress disorder (PTSD).

We would like to invite you to take part in an online survey which should take between 30-45 minutes to complete. The questionnaires will ask you to tick which types of trauma you have experienced, indicate the severity of your symptoms of PTSD and rate how often you experience a range of thoughts about defeat.

Please read through the statements below and check the box on the right of the screen to give your consent to participate.

		Please tick each box
1	I confirm that I have read and understand the information sheet (*Version 2.1 dated 22.11.2021)*.I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	☐
2	I understand that my participation is voluntary and that I am free to withdraw at any time up until submission of my questionnaire, without giving any reason, and without any adverse consequences or penalty. I understand that all survey data I provide will be kept.	☐
3	I understand that this project has been reviewed by, and received ethics clearance via an NHS Research Ethics Committee.	☐
4	I understand who will have access to the data provided, how the data will be stored and what will happen to the data at the end of the project.	☐
5	I understand how this research will be written up and published.	☐
6	I understand how to raise a concern or make a complaint.	☐
7	I agree to take part in the study	☐

Professor Craig Steel ; Craig.Steel@oxfordhealth.nhs.uk

Rachel Ashwick, Trainee Clinical Psychologist; Rachel.ashwick@oxfordhealth.nhs.uk

When completed: Consent form and questionnaire results to be input into the online Qualtrics survey and paper copies to be destroyed in line with Oxford Health NHS Foundation Trust regulations. Anonymous electronic data to be stored for 3 years following the end of the study.

Appendix Y: TDRP Participant debrief form

DEBRIEF FORM V.2. 29.09.2021

A study investigating the impact of trauma type on perceptions of defeat

Thank you for taking part in this study, we really appreciate your help.

If you know anyone else who may like to participate in this study, you are welcome to provide them with the survey link or researcher contact details.

Study aims

This study aimed to investigate whether the type of trauma that an individual experiences influences their perception of feeling defeated and whether this affects the severity of their posttraumatic stress disorder (PTSD). We were comparing people who have experienced interpersonal traumas (caused by another person) to those who have experienced non-interpersonal traumas (for example, accidents). We were also looking at whether an individual's perception of defeat increases as the number of interpersonal traumas they have experienced increases.

These findings will help us better understand how these different traumas affect perceptions and symptoms differently and will inform what to target in treatment.

Your data

As mentioned in the participant information sheet, all of your data is anonymous and confidential. We store the results on an Oxford Health NHS password protected computer, which can only be accessed by the research team. As the data is unidentifiable, we will be unable to withdraw your data from the study. This data will be kept for 3 years.

Further advice and support

The NHS can help to support you with your symptoms. There are also many charities who can provide advice and, emotional and practical support. If you are concerned about your mental health, we encourage you to speak to your GP who can then refer you for further specialist help if needed.

Sources of advice and support

1. Your General Practitioner
2. NHS (phone number: 111) – for any health issue

3. The Samaritans (phone number: 116 123) –for any emotional distress
4. Emergency services (phone number: 999) - in the case of an emergency
5. If you are in a mental health service, please contact those involved in your care
6. PTSD UK (Website: www.ptsduk.org) - Information and support for anyone experiencing PTSD
7. British Red Cross Refugee Support (Website: www.redcross.org.uk) – Helps with the urgent needs of refugees and asylum seekers
8. Combat Stress (Website: www.combatstress.org.uk / phone number: 0800 138 1619) - Helpline, peer support and treatment services for veterans with PTSD
9. Refuge (Website: www.refuge.org.uk / phone number: 0808 2000 247) – Support for women and child who have experienced domestic abuse
10. Mankind (Website: www.mankind.org.uk / phone number: 01823 334 244) – Support and advice for men who have experienced domestic abuse

Further questions

If you have any more questions about any aspect of this project or would like a written summary of the research upon its completion, please speak to the researcher Rachel Ashwick (rachel.ashwick@oxfordhealth.nhs.uk ; +44 (0)1865 226 366) or their supervisor Professor Craig Steel (craig.steel@hoxfordhealth.nhs.uk ; +44 (0)1865 226 366), who will do their best to answer your query.

If you have any concerns, or wish to make a formal complaint, please contact the Patient Advice and Liaison Service (PALS) via https://www.oxfordhealth.nhs.uk/support-advice/pals/ .

Telephone number: 0800 328 7971

Email: PALS@oxfordhealth.nhs.uk

Appendix Z: TDRP Questionnaires

Questionnaires

Before you complete the questionnaires:

Try to find a quiet space where you won't be interrupted.

Sometimes people can experience increased distress when completing these questionnaires as they ask about traumatic experiences, current symptoms and difficulties.

- Try to **have something soothing with you**, such as a smell, a picture, some music, a cold drink or something to hold.
- **Take a break** whenever you need to.
- You may also like to **ask someone to sit with you** while you are completing the questionnaires.

There are no right or wrong answers, just answer as best as you can based on how you are feeling at the moment.

Screening questions to check for eligibility:

Please indicate below which trauma types you have experienced throughout your lifetime:

Non-Interpersonal trauma

Non-interpersonal traumas are traumas that were not purposefully caused by another person. For example:

- Car accident
- Natural disaster
- Fire or explosion
- Other serious accident / injury
- Sudden accidental death of a loved one
- Life-threatening illness
- Birth trauma

Interpersonal trauma

Interpersonal trauma is something that was purposefully caused by another person. For example:

- Domestic violence
- Physical Assault
- Sexual assault
- Other unwanted sexual experience
- Sudden violent death of a loved one
- Exposure to a war zone
- Serious injury you caused to someone else

Please indicate if you have experienced interpersonal, non-interpersonal or both types of traumas:

- ○ I have only experienced non-interpersonal traumas
- ○ I have only experienced interpersonal traumas
- ○ I have experienced both types

The posttraumatic stress disorder checklist for the DSM-5 (PCL-5)

Below is a list of problems that people sometimes have in response to very stressful experiences. Please read each problem carefully and then tick the box to indicate how much you have been bothered by that problem in the past month.

	Not at all (0)	A little bit (1)	Moderately (2)	Quite a bit (3)	Extremely (4)
1. Repeated, disturbing, and unwanted memories of the stressful experience?	○	○	○	○	○
2. Repeated, disturbing dreams of the stressful experience?	○	○	○	○	○
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	○	○	○	○	○
4. Feeling very upset when something reminded you of the stressful experience?	○	○	○	○	○
5. Having strong physical reactions when something reminded you of the stressful experience (for	○	○	○	○	○

example, heart pounding, trouble breathing, sweating)?					
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	○	○	○	○	○
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	○	○	○	○	○
8. Trouble remembering important parts of the stressful experience?	○	○	○	○	○
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one	○	○	○	○	○

can be trusted, the world is completely dangerous)?					
10. Blaming yourself or someone else for the stressful experience or what happened after it?	○	○	○	○	○
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	○	○	○	○	○
12. Loss of interest in activities that you used to enjoy?	○	○	○	○	○
13. Feeling distant or cut off from other people?	○	○	○	○	○
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	○	○	○	○	○
15. Irritable behaviour, angry	○	○	○	○	○

outbursts, or acting aggressively?					
16. Taking too many risks or doing things that could cause you harm?	○	○	○	○	○
17. Being “superalert” or watchful or on guard?	○	○	○	○	○
18. Feeling jumpy or easily startled?	○	○	○	○	○
19. Having difficulty concentrating?	○	○	○	○	○
20. Trouble falling or staying asleep?	○	○	○	○	○

The Lifetime Events Checklist

TRIGGER WARNING: THIS PART OF THE QUESTIONNAIRE ASKS ABOUT TRAUMATIC EXPERIENCES AND GIVES EXAMPLES OF TRAUMA TYPES.

Please indicate which of the following events you have experienced throughout your lifetime, the number of times it was experienced, the estimated date of when it last occurred, and the duration of the event in days.

Please note that if the trauma occurred over a long period of time, then (for the purpose of this study) it will count as 1 event if it was the same perpetrator(s) over a continuous period (e.g. repeated physical assault over the period of months/years). If you experienced the same type of trauma again with a different perpetrator(s), e.g. physical assault within 2 different relationships, then this will count as 2 traumas.

If you have not experienced an event, please put a **'0'** in each box

	How many times have you experienced each event?	What was the approximate date of the last time it occurred?	What was the approximate duration of the event in days?
Natural disaster (for example, flood, hurricane, tornado, earthquake)			
Fire or explosion			
Transportation accident (for example, car accident, boat accident, train wreck, plane crash)			
Serious accident at work, home, or during recreational activity			
Exposure to toxic substance (for example, dangerous chemicals, radiation)			
Physical assault (for example, being			

attacked, hit, slapped, kicked, beaten up)			
Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)			
Sexual assault (rape, made to perform any type of sexual act through force or threat of harm)			
Other unwanted or uncomfortable sexual experience			
Combat or exposure to a war-zone (in the military or as a civilian)			
Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)			
Life-threatening illness or injury			
Severe human suffering			
Sudden violent death (for example, homicide, suicide)			
Sudden accidental death			
Serious injury, harm, or death you caused to someone else			

If you experienced another trauma not listed, please define what it was below:

Type '0' in each box if this section is not relevant to you.

	write in box below:
Can you briefly summarise what the traumatic event was?	
Was it purposefully caused by someone else? Yes or No	
How many times have you experienced this event?	
What was the approximate date of the last time it occurred?	
What was the approximate duration of the event in days?	

The defeat scale

Below is a series of statements, which describe how people can feel about themselves. Read each item carefully and indicate which number best describes how you have felt in the last 7 days. Use the scale below. Please do not omit any item.

	Never (0)	Rarely (1)	Sometimes (2)	Mostly / A lot (3)	Always (4)
1. I feel that I have not made it in life	○	○	○	○	○
2. I feel that I am a successful person	○	○	○	○	○
3. I feel defeated by life	○	○	○	○	○
4. I feel that I am basically a winner	○	○	○	○	○
5. I feel that I have lost my standing in the world	○	○	○	○	○
6. I feel that life has treated me like a punch bag	○	○	○	○	○
7. I feel powerless	○	○	○	○	○
8. I feel that my confidence has been knocked out of me	○	○	○	○	○
9. I feel able to deal with	○	○	○	○	○

whatever life throws at me					
10. I feel that I have sunk to the bottom of the ladder	○	○	○	○	○
11. I feel completely knocked out of action	○	○	○	○	○
12. I feel that I am one of life's losers	○	○	○	○	○
13. I feel that I have given up	○	○	○	○	○
14. I feel down and out	○	○	○	○	○
15. I feel that I have lost important battles in life	○	○	○	○	○
16. I feel that there is no fight left in me	○	○	○	○	○

Demographics

Please write your age below:

_____

Please indicate your sex:

- ○ Male
- ○ Female
- ○ Other (specify below:) _____

Please indicate your ethnicity:

- ○ White
- ○ Mixed or Multiple ethnic groups
- ○ Black, African, Caribbean
- ○ Asian
- ○ Other (please specify) _____

Appendix A1: TDRP Author Guidelines for The Journal of Traumatic Stress

Author Guidelines

To read the journal's position on open science practices, please find the full statement **here**.

Sections

1. Submission and Peer Review Process
2. Article Types
3. After Acceptance

Submission and Peer Review Process

Once the submission materials have been prepared in accordance with the Author Guidelines, manuscripts should be submitted online at https://mc.manuscriptcentral.com/jots.

For help with submissions, please contact **JOTS@bu.edu**.

This journal does not charge submission fees.

Article Preparation Support

Wiley Editing Services offers expert help with English Language Editing, as well as translation, manuscript formatting, figure illustration, figure formatting, and graphical abstract design – so you can submit your manuscript with confidence.

Also, check out our resources for **Preparing Your Article** for general guidance about writing and preparing your manuscript.

Free format submission

Journal of Traumatic Stress now offers **Free Format submission** for a simplified and streamlined submission process.

Before you submit, you will need:

- Your manuscript: this should be an editable file including text, figures, and tables, or separate files—whichever you prefer. All required sections should be contained in your manuscript, including abstract, introduction, methods, results, and conclusions. Figures and tables should have legends. Figures should be uploaded in the highest resolution possible. References may be submitted in any style or format, as long as it is consistent throughout the manuscript. Supporting information should be submitted in separate files. If the manuscript, figures or tables are difficult for you to

read, they will also be difficult for the editors and reviewers, and the editorial office will send it back to you for revision.

- An ORCID ID, freely available at https://orcid.org. *(Why is this important? Your article, if accepted and published, will be attached to your ORCID profile. Institutions and funders are increasingly requiring authors to have ORCID IDs.)*
- The title page of the manuscript, including:
    - Your co-author details, including affiliation and email address. *(Why is this important? We need to keep all co-authors informed of the outcome of the peer review process.)*
    - Statements relating to our ethics and integrity policies, which may include any of the following *(Why are these important? We need to uphold rigorous ethical standards for the research we consider for publication)*:
        - data availability statement
        - funding statement
        - conflict of interest disclosure
        - ethical standards statement
        - patient consent statement
        - permission to reproduce material from other sources
        - clinical trial registration

Important: the journal operates a double-blind peer review policy. Please anonymize your manuscript and supply a separate title page file.

To submit, login at **https://mc.manuscriptcentral.com/jots** and create a new submission. Follow the submission steps as required and submit the manuscript.

Open Access

This journal is a subscription journal that offers an open access option. You'll have the option to choose to make your article open access after acceptance, which will be subject to an APC, unless a waiver applies. Read more about **APCs here**.

Preprint policy:

Please find the Wiley preprint policy **here.**

This journal accepts articles previously published on preprint servers.

Journal of Traumatic Stress will consider for review articles previously available as preprints. You may also post the submitted version of a manuscript to a preprint server at any time. You are requested to update any pre-publication versions with a link to the final published article.

JTS operates a double-blind peer review process. Authors are responsible for anonymizing their manuscript in order to remain anonymous to the reviewers throughout the peer review process (see "Main Text File" above for more details). Since the journal also

encourages posting of preprints, however, please note that if authors share their manuscript in preprint form this may compromise their anonymity during peer review.

Data Sharing and Data Availability

This journal expects data sharing. Review **Wiley's Data Sharing policy** where you will be able to see and select the data availability statement that is right for your submission.

Data Citation

Please review **Wiley's Data Citation policy**.

Data Protection

By submitting a manuscript to or reviewing for this publication, your name, email address, and affiliation, and other contact details the publication might require, will be used for the regular operations of the publication. Please review **Wiley's Data Protection Policy** to learn more.

Funding

You should list all funding sources in the Acknowledgments section. You are responsible for the accuracy of their funder designation. If in doubt, please check the **Open Funder Registry** for the correct nomenclature.

Authorship

All listed authors should have contributed to the manuscript substantially and have agreed to the final submitted version. Review **editorial standards** and scroll down for a description of authorship criteria.

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