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An Examination of Early Termination from Trauma-Focused Treatment for Posttraumatic Stress Disorder: A Literature Review and Mixed Methods Study Proposal

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DOCTOR OF PSYCHOLOGY

BY
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Abstract

The high rate of early termination from evidence-based, trauma-focused psychotherapy treatments for posttraumatic stress disorder (PTSD) impedes maximum benefit from trauma-focused treatment, making it an on-going concern for clinicians. This paper consists of a literature review regarding the problem of early termination from evidence-based, trauma-focused treatment for PTSD in adults. It then proposes a mixed methods study to investigate re-engaging veterans in trauma-focused PTSD treatment, analyzing completion rates, and evaluating participants' experience using qualitative interviews.

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**An Examination of Early Termination from Trauma-Focused Treatment for
Posttraumatic Stress Disorder: A Literature Review and Mixed Methods Study
Proposal**

The purpose of this paper is to provide a literature review highlighting current nuances and difficulties found in the literature surrounding early termination by veterans from evidence-based, trauma-focused posttraumatic stress disorder (PTSD) treatment, and to propose a mixed methods study to investigate re-engaging veterans into PTSD treatment. The paper will first review the impact and prevalence rates of PTSD. Next, treatment options, early termination rates, and factors contributing to completion and early termination in adults will be explored, focusing on Cognitive Processing Therapy (CPT), Prolonged Exposure (PE), and Eye Movement Desensitization and Reprocessing therapy (EMDR). Finally, a mixed method study will be proposed to examine the concept of re-engaging veterans who previously terminated early from CPT, PE, or EMDR into another of these three psychotherapies. Qualitative interviews will be conducted with completers and early terminators to determine factors that influenced completion or early termination and to explore participants' experience of re-engaging in treatment and their experience of the alternate form trauma-focused PTSD treatment.

Posttraumatic Stress Disorder (PTSD)

Impact of PTSD

Posttraumatic stress disorder (PTSD) is a mental health condition that may develop in some individuals after experiencing or witnessing a traumatic, terrifying event that strongly threatened the physical, emotional, or psychological safety of the individual or of a loved one or friend (American Psychological Association [APA], 2017a). It has

been aptly described as, “an accumulation of aversive recollections, avoidant behaviors, maladaptive cognitions, and heightened emotional and arousal symptoms resulting from experiencing or witnessing a life threatening or violent event” (Szafranski et al., 2017, p. 91). Posttraumatic stress disorder can manifest in a variety of symptoms that interfere with daily functioning. Research indicates that having PTSD can impact individuals in a variety of areas including impaired occupational performance (Taylor et al., 2006), increased deficits in physical health functioning over time (Serier et al., 2022), poorer health functioning and increased disability in veterans (Goldberg et al., 2014), increased risk of suicidality (Ramsawh et al., 2014), and impairment in social functioning (Wingo et al., 2017), as well as negatively impacting parenting behaviors (Christie et al., 2018), and causing distress in the individual’s relationship with their partner and family (U.S. Department of Veterans Affairs, 2023, April 07).

Rates of PTSD

According to the National Institute of Mental Health (n.d.), it is estimated that 3.6% of adults in the United States have PTSD in a given year. Data shows that rates are higher for adult females (5.2%) compared to adult males (1.8%), with a lifetime PTSD prevalence rate of 6.8% (National Institute of Mental Health, n.d.). In their study, Kessler et al. (2005) report that rates of impairment for adults with PTSD are fairly evenly distributed, with 36.6% of adults with PTSD showing serious impairment, 33.1% showing moderate impairment, and 30.2% showing mild impairment.

Lifetime rates of PTSD among U.S. veterans is slightly higher (7%) than in the civilian population (6%) as reported by the U.S. Department of Veterans Affairs, (2023, February 03, here and following). They also report higher rates for female veterans (13%)

compared to male veterans (6%). Transgender and non-binary rates of PTSD are being investigated. Reported rates also vary by service era, with the highest rates occurring in OIF/OEF veterans, followed by veterans from Desert Storm, then Viet Nam veterans, and the lowest rates occurring in veterans of World War II and the Korean war. Lifetime rates of PTSD are also higher for veterans who seek health care at the VA (23%) compared to rates of 7% for veterans who do not use VA health care services, with PTSD being more common in female veterans (19%) than male veterans (10%) for those who seek care at VA facilities. This is partly explained by the increased prevalence of military sexual trauma (MST) in women compared to men in the U.S. Armed Forces (33% compared to 2%). Rates of PTSD in veterans of color and LGBTQ+ veterans are an areas of active research (U.S. Department of Veterans Affairs, 2023, February 03).

PTSD Treatment Types

Given the prevalence and impact of PTSD on civilians and veterans, a number of treatments are available for clients diagnosed with PTSD. Treatments include pharmacotherapy, novel research on the use of psychedelics in PTSD treatment, non-trauma-focused psychotherapies, and evidence-based trauma-focused psychotherapy treatments, which are the focus of this study.

The U.S. Department of Veterans Affairs recommends three medications to treat PTSD, two selective serotonin reuptake inhibitors (SSRIs) and one serotonin-norepinephrine reuptake inhibitor (SNRI) (U.S. Department of Veterans Affairs, 2023, July 12). Examining the efficacy of SSRIs on PTSD symptom reduction, a review and meta-analysis by Hoskins and colleagues (2015) concluded that the efficacy of SSRIs on PTSD symptom reduction compared to a placebo was statistically significant though

demonstrating only a small effect size. Two other meta-analyses (Lee et al., 2016; Watts et al., 2013) compared trauma-focused, evidence-based psychotherapies (PE, CPT, and Narrative Exposure therapy) with pharmacotherapies. Study results showed that trauma-focused therapies produce greater, longer-lasting change in PTSD symptoms compared to pharmacological treatments alone (Lee et al., 2016) and Watts et al., (2013) found larger effect sizes for psychotherapy than for medication. Lee and colleagues (2016) also found that trauma-focused therapies were superior to non-trauma-focused psychotherapy treatments. For more detailed information on the effectiveness of specific medications, see Lee et al. (2016), Watts et al., (2013), and Hoskins et al. (2015).

A very new area of trauma treatment research is the use of psychedelics for the treatment of PTSD. A review article by Krediet and colleagues (2020, here and following) explains the rationale for the use of psychedelics, and explores the potential of four substances including MDMA, ketamine, classic psychedelics (e.g. psilocybin and LSD), and some cannabinoids. Rationale and proposed pathways depend on the substance and include rapid targeting of symptoms; enhancement of psychotherapy by diminishing the fear response to anxiety-provoking stimuli such as previous trauma associate memories; increasing fear extinction; reducing avoidance; enhancing interpersonal trust, introspection, creative thinking, and mindfulness; decreasing amygdala reactivity during emotional processing; and possibly increasing neuronal and synaptic plasticity. While these substances have been investigated for the treatment of depression in certain circumstances, Krediet and colleagues (2020) call for further research to investigate the effectiveness and safety of psychedelics and to develop

guidelines identifying clients for which this treatment would be appropriate and beneficial (Krediet et al., 2020).

Psychotherapy approaches include non-trauma-focused and trauma-focused treatment. A partial list of non-trauma-focused psychotherapy treatments which have been used to treat PTSD in adults include Present-Centered Therapy (Resick et al., 2015; Steenkamp et al., 2020), which focuses on symptom management and problem-solving; stress management and relaxation; supportive therapy/non-directive counseling; Psychodynamic therapies; hypnotherapy (Bisson et al., 2007), and interpersonal therapy (Grasser & Javanbakht, 2019). When considering evidence-based, trauma-focused treatments for PTSD, the three of the most recommended treatments for PTSD are Prolonged Exposure (PE), Cognitive Processing Therapy (CPT), and Eye Movement Desensitization and Reprocessing therapy (EMDR), which are described later in this paper. Though these three evidence-based, trauma-focused psychotherapy treatments are effective for treating PTSD, an on-going concern for clinicians is the high rate of early termination from these trauma-focused treatments.

The Problem of Early Termination From PTSD Psychotherapy Treatments

Importance of Completion

Early termination from evidence-based, trauma-focused PTSD treatment has been a concern for clinicians working with individuals seeking treatment for trauma. Though Szafranski and colleagues (2017) argue that terminating treatment before completion of the treatment protocol does not preclude the possibility of symptom improvement for some clients (see also Larsen et al., 2023), several studies show an association between a higher number of sessions attended and greater symptom improvement, with the best

outcomes associated with individuals who completed the entire treatment protocol (Berke et al., 2019; Holmes et al., 2019; Rothbaum & McSweeney, 2019; Zieve et al., 2019). Berke and colleagues (2019) examined three randomized control trials (RCTs) in which active-duty service members were treated for PTSD using CPT, PE, and Present-Centered Therapy (PCT), a non-trauma-focused treatment. They found that individuals who completed treatment were more likely to experience clinically significant improvement (Berke et al., 2019). In contrast to the suggestion by Szafranski et al. (2017) that early terminators may have experienced early significant gains, Berke and colleagues (2019) found that 75% of individuals who terminated at any time before completing the final therapy session had either symptomatically worsened or showed no clinically significant symptom improvement. Thus, they contend that early termination did not reflect participants being “early treatment responders” (Berke et al., 2019; see also Zieve et al., 2019). To maximize client improvement and quality of life, it appears to be imperative that clients complete all sessions of trauma-focused treatment for PTSD. This highlights the importance of understanding early termination and the need for developing methods to increase treatment completion.

Early Termination Rates

A meta-analysis and systematic review by Lewis and colleagues (2020) explored early termination from randomized control trials for psychological therapies addressing PTSD in adults. They found the overall (pooled) early termination rate for these studies was 16%. However, early termination rates for trauma-focused therapies such as PE (22%), CPT (30%), and EMDR (18%) were significantly higher than for non-trauma-focused therapies, such as Relaxation Training (10%). Here, early termination was

defined as having left the RCT before the post-treatment assessment. This rate was lower than the findings of a review by Goetter and colleagues (2015), which found an overall early termination rate of 36% when examining twenty studies of U.S. military veterans, with rates ranging from 5% to 78%. The authors note that early termination rates were somewhat higher in clinical care settings compared to clinical trials, and early termination rates were higher for group treatment compared to individual treatment (Goetter et al., 2015). Kehle-Forbes and colleagues (2016) found a similar early termination rate when examining the medical records of 427 veterans offered PE and CPT at an outpatient VA clinic. Results show that 38.5% of veterans left treatment early, with 25% of that group leaving treatment before session three (Kehle-Forbes et al., 2016). The factors associated with higher early termination rates were younger age and participation in PE compared to CPT, with individuals in PE more likely to leave treatment (Kehle-Forbes et al., 2016).

A systematic review and meta-analysis of 85 trials with 6800 civilian or military participants by Varker and colleagues (2021) investigated early termination from randomized control trials using guideline-recommended psychological treatments for PTSD. Prolonged Exposure was the most common type of treatment used (30% of studies) followed by EMDR (21% of studies) and CBT (18% of studies), with other types of guideline-recommended treatments also represented in the studies included in the meta-analysis (Varker et al., 2021, and following). Other treatments include brief eclectic psychotherapy, cognitive behavioral therapy, treatment as usual, cognitive therapy, and narrative exposure therapy. The overall mean early termination rate for all types of guideline-recommended treatment was 20.9% compared to 7.8% for the control groups,

with high levels of variability across studies. Looking at trauma type, Varker and colleagues (2021) found that the early termination rate in studies of military trauma was higher (33%) than for studies looking at civilian trauma (17%). In studies of military trauma, the authors found that early termination from non-trauma-focused treatment was significantly lower than for trauma focused treatment. Early termination rates for specific treatment types were 29% for PE, 34% for CPT, 18% for CBT, and 15% for EMDR (Varker et al., 2021). In another meta-analysis, Edwards-Stewart and colleagues (2021) examined the early termination rate for PTSD treatment among active-duty military and veteran populations. They found the combined early termination rate for all types of treatment to be 24.2% (Edwards-Stewart et al., 2021). The early termination rate for trauma-focused treatment was higher (27%) compared to non-trauma-focused treatment (16%) and waitlist (6.8%) (Edwards-Stewart et al., 2021; see also Imel et al., 2013).

In a study comparing CPT to PE in U.S. Veterans, Schnurr and colleagues (2022) found early termination rates to be 55.8% for PE and 46.6% for CPT. Alpert and colleagues (2020) examined early termination rates between individuals engaging in CPT (12 session protocol) compared to Written Exposure Therapy (WET) (5 session protocol). They found an early termination rate of 39.7 % for CPT and 6.4% for WET (Alpert et al., 2020). Another study examining early termination for cognitive-behavioral therapies in women by Gutner and colleagues (2016) reports an early termination rate of 39%. Individuals who terminated early did so by mid-treatment, and the pattern of early termination was consistent across all CBT conditions, namely PE, CPT, and CPT-C (Gutner et al., 2016). Additionally, there is evidence that early termination rates are higher in naturalistic/clinical settings compared to randomized control trials, with studies

reporting rates from 38% to 68% (Garcia et al., 2011; Kehle-Forbes et al., 2016; Wang et al., 2005).

These and other studies illustrate that early termination rates for trauma-focused treatment can range from approximately 15% to over 60%. Early termination is particularly concerning given that un-treated PTSD shows a poor course over time (Bradley et al., 2005; Perkonigg et al., 2005). These rates emphasize the need to better understand factors associated with both early termination and treatment completion in order to develop methods to increase retention and completion rates for trauma-focused therapy.

Factors Contributing to Completion and Early Termination

Various studies have investigated factors or reasons for trauma-focused PTSD treatment completion and early termination. These studies include analysis of medical records, randomized control trials, naturalistic studies, meta-analyses, and qualitative interviews of completers and non-completers. The majority of studies focused on the veteran population, with some studies looking at active-duty military and some investigating civilian responses. The type of trauma-focused therapy was typically Prolonged Exposure (PE) and Cognitive Processing Treatment (CPT), with one study specifically mentioning CPT with a trauma narrative. Eye Movement Desensitization Reprocessing therapy (EMDR) was not mentioned in the studies reviewed regarding factors associated with completion and early termination.

A variety of factors were found to be associated with early termination or completion rates. Demographic variables associated with higher levels of early termination include younger age (Berke et al., 2019; Kehle-Forbes et al., 2016; Maguen

et al., 2019; Sciarrino et al., 2022), whereas higher levels of completion were associated with higher levels of education (Berke et al., 2019; Maguen et al., 2019) and African American race (Maguen et al., 2019). Other factors found by Maguen and colleagues (2019) that were associated with treatment completion include seeking treatment for military sexual trauma, experiencing combat, multiple deployments, being an officer, a reservist, or a member of the National Guard. Sciarrino and colleagues (2022) also note that the need to balance a several life roles and responsibilities (“practical barriers”) and current substance use also contributed to early termination. Mitchell and colleagues (2023) found that more severe PTSD symptomology, as assessed by clinicians, prior to beginning PTSD treatment was associated with a higher likelihood of early termination. However, Sciarrino et al. (2022) found mixed results regarding the relationship between both symptom severity and the presence of traumatic brain injury (TBI) on early termination rates. In contrast, Berke et al. (2019) reported that the presence of TBI was associated with higher levels of early termination. The impact of homework engagement was noted by Stirman and colleagues (2018), who found that higher levels of engagement in homework were associated with lower levels of early termination.

Qualitative studies note several general areas impacting completion or early termination, as reported by clients via semi-structured interview. Hundt and colleagues (2020) enumerate four main themes expressed as barriers to completing PE and CPT in a study of veteran experiences. These include practical barriers, therapy or therapist-related barriers, emotional barriers, and VA system-related barriers (Hundt et al., 2020). Practical barriers were endorsed by 57% of respondents, with 25% citing employment and/or school responsibilities or scheduling conflicts interfering with therapy attendance.

Twenty-one percent reported family or care-giver obligations interfering with treatment completion, and 11% endorsed various practical barriers that fell into the “other” category. Doran and colleagues (2021) also found that veterans who terminated early cited logistical difficulties with appointments, financial concerns/financial hardship, conflicts with work or other role obligations, and other life stressors impacting respondents’ ability to feel able to complete treatment.

The theme most endorsed by respondents in the study by Hundt and colleagues (2020) was therapy or therapist-related barriers, which were endorsed by 71% of respondents. The largest sub-category, reported by 50% of non-completers, was a failure to be convinced regarding the rationale for a specific therapy or for a related therapy task (lack of “buy in”) (Hundt et al., 2020, and following). Twenty-one percent noted difficulties with the therapeutic alliance including feeling “pushed too fast,” or feeling that the treatment was not working (18%), and 25% were referred to a different type of treatment or to a different level of care by their clinician. Emotional barriers, endorsed by 43% of respondents, included the experiencing therapy as being “too stressful” (32%), and a category labeled “other” (11%). Barriers related to the VA health care system were reported by 14% of non-completers as contributing to their decision to terminate treatment early.

The theme of therapy being “too distressing” was also reported by 82% of individuals who terminated early from CPT in a study focused on veterans by Alpert and colleagues (2020). In a study by Doran and colleagues (2021) looking at veteran experiences with CPT and PE, the decision to terminate early was influenced by “internal factors” including feeling overwhelmed and unable to cope with distressing feelings that

arose during therapy, as well as avoidance, negative emotions, and worsening symptoms. Kehle-Forbes and colleagues (2022) found that the impact of symptom exacerbation was a reason given for early termination by veterans in this study, with individuals concerned about their ability to function at work and within their family when symptoms became worse. They also found that the meaning attributed to worsening symptoms and elevated distress differed between completers and early terminators (Kehle-Forbes et al., 2022, and following). Completers tended to consider worsening symptoms to be an expected part of the therapy process, and they tended to focus on the long-term benefits of completing therapy. In contrast, early terminators spoke more about worsening symptoms and elevated distress, which contradicted their pre-treatment expectation that they would feel better after completing therapy sessions. Early terminators considered increased distress and symptomology as evidence that treatment was not working and would not work for them, thus contributing to their decision to leave treatment.

Kehle-Forbes and colleagues (2022) also found that individuals who terminated early reported more difficulty coping with life events that came up during the course of treatment, and reported feeling more overwhelmed by life stressors and competing demands than those who completed treatment. Completers were less distressed by competing demands. They tended to prioritize completion of their PTSD treatment over other life demands, and they considered the long-term benefits of completion as having greater importance (Kehle-Forbes et al., 2022). Hundt and colleagues (2016) found that a personal commitment to finishing treatment was an important factor influencing the decision to stay in treatment, as was the with the feeling of being desperate for symptom relief.

An important factor influencing treatment completion is the provision of treatment-specific encouragement to stay with treatment in spite of distress. Meis and colleagues (2019) found that veterans who experienced support from loved ones who specifically encouraged them to face their distress were twice as likely to stay in trauma-focused treatment for PTSD compared to individuals who did not receive this specific encouragement from loved ones. Hundt and colleagues (2016) also found that higher levels of family support were associated with higher rates of treatment completion. Kehle-Forbes and colleagues (2022) emphasize that support from family members or other care team members must be specific to PE and CPT treatment rather than general or non-specific support.

In light of the positive impact of specific support for individuals engaging in PE and CPT, Thompson-Hollands and colleagues (2021) explored loved ones' understanding of PTSD and its treatment in situations of veterans with poor PTSD treatment adherence. They found that relatives and close friends ("support persons") of veterans who had low PTSD treatment adherence and low completion rates had only a minimal understanding of PTSD or the goals of CPT or PE, and they considered therapy to serve the function of stress relief (Thompson-Hollands et al., 2021 and following). These support persons also showed very little involvement their loved one's PTSD treatment. Most support persons heard very little from the veteran about their treatment, had little involvement in homework, and had no contact with the veteran's clinician. Many support persons were either unaware of the veteran's decision to leave treatment or supported the veteran's decision to terminate treatment. This finding is supported by Harris and colleagues (2020) who state that veterans in a focus group reported that family members who did not

understand the rationale of PE frequently encourage their loved one to abandon treatment when the veteran's distress increased during therapy. Though support persons in the Thompson-Holland study had little knowledge or involvement in their loved one's treatment, these support persons expressed a strong interest in becoming more involved in the veteran's treatment, and they were especially interested in learning how to respond to the veteran's symptoms (Thompson-Holland et al., 2021). The authors conclude by discussing ways to increase support persons' knowledge, involvement, and specific support for their loved one's treatment (Thompson-Holland et al., 2021).

Similarly, both Hundt and colleagues (2016) and Kehle-Forbes and colleagues (2022) report that specific therapist or therapy group support improves the likelihood of treatment engagement and completion. Kehle-Forbes and colleagues (2022) note that veterans who completed treatment felt that their therapist was "in the trenches" with them, joining in the shared goal of treatment completion and repeatedly providing encouragement to stay in treatment. These therapists discussed motivation with the veteran, and reminded the veteran of the motivational reasons that brought them to therapy (Kehle-Forbes et al., 2022, and following). Veterans reported that their therapists asked about their reactions to treatment materials. These therapists also engaged in collaborative analysis and problem-solving rather than judgement or pressure when the veteran expressed ambivalence, concerns, or non-compliance. Overall, Kehle-Forbes and colleagues (2022) comment that therapists were described as generally acting in the role of "cheer leader."

In contrast, early terminators reported less of the above-mentioned interactions with their clinician (fewer conversations about treatment reactions and motivation, less

collaborative problem solving, less encouragement or “cheer leading”) (Kehle-Forbes et al., 2022 and following). These clients felt less inclined to share concerns or feelings of ambivalence with their clinician, thus missing opportunities to collaborate, problem-solve, and build rapport. The authors also noted that completers often described their clinician’s approach to therapy delivery as flexible, whereas early terminators described treatment delivery as more rigid in adherence to treatment protocol. The flexible clinician worked collaboratively with the veteran, modifying treatment delivery to accommodate the veteran’s needs. For example, modifying the trauma content to be addressed in a session for a veteran who felt unable or unwilling to engage as fully as prescribed by the current session protocol. These flexible therapists worked with the veteran to develop a plan leading toward protocol-consistent content in future sessions.

A final avenue of approach in efforts to increase treatment completion has been the use of peer support as an adjunct to PTSD treatment. The concept of peer support was taken from mental health literature noting the success of the model in improving recovery related attitudes in people with serious mental illness (Davidson et al., 2006; Chinman et al., 2006; as noted in Jain et al., 2016). Peer support involves an individual who is further along in recovery and experiencing improvement being partnered with an individual beginning recovery (Davidson et al., 2006) for the purpose of providing information and encouragement, and to instill hope and feelings of empowerment (Jain et al., 2016). Several studies have investigated or suggested the use of peer support, also called peer mentoring and veteran-to-veteran support, in the treatment of PTSD, with some studies particularly focused on augmenting Prolonged Exposure therapy including *in vivo* exposure exercises (see Harris et al., 2020; Hernandez-Tejada, Aciero, & Sanchez-

Carracedo, 2020; Hundt et al., 2015; Jain et al., 2012; Jain et al, 2016; Kumar et al., 2019).

A study by Hernandez-Tejada, Acierno, and Sanchez-Carracedo (2020) investigated peer satisfaction with veteran-to-veteran support during PE *in vivo* exposure homework in veterans who had previously terminated early from PE. Both peers and the veterans who engaged in the peer supported PE study reported high levels of satisfaction with the peer support experience. Building on this result, Hernandez-Tejada, Muzzy, and colleagues (2020) have written a proposed study protocol to compare the impact of direct peer support during *in vivo* PE exposure homework with general peer support provided in a weekly telephone call. The outcome variable would be the number of PE sessions attended and PTSD symptom reduction (Hernandez-Tejada, Muzzy, et al., 2020). Participants in this study would be veterans who had previously terminated early from PE or who intend to terminate early from current PE treatment (Hernandez-Tejada, Muzzy, et al., 2020). In summary, several studies have sought to identify factors related to completion or early termination from trauma-focused PTSD treatment, and to suggest possible interventions to increase trauma-focused PTSD treatment completion.

Descriptions of Three Recommended Trauma-Focused PTSD Treatments

Prolonged Exposure (PE)

Prolonged Exposure (PE) is an 8-15 session evidence-based type of cognitive behavior therapy used to treat posttraumatic stress disorder (PTSD). The emphasis of PE is to help clients confront reminders of their trauma, such as memories, situations, and feelings that are safe but feared and avoided by the client (U.S. Department of Veterans Affairs [VA], 2024, February 01; 2024, January 11). The client is helped to gradually

approach trauma-related stimuli in order to alter the pathological emotion and fear structures developed from the trauma (VA, 2024, February 01). This is achieved through exposure and habituation to safe but feared stimuli (VA, 2024, February 01). A core part of this treatment is imaginal and *in vivo* exposure (APA, 2020). In imaginal exposure, the client talks about the details of their trauma in present tense, processes their emotions with the therapist, and records the narrative in order to listen to it between sessions and continue processing the associated emotions and practicing the calming tools taught in therapy (APA, 2020). *In vivo* exposure exercises occur outside of the session as homework, in which the client gradually approaches stimuli and situations that generate trauma-related fear and a desire for avoidance (APA, 2020). Repeated imaginal and *in vivo* exposure while using tools to manage anxiety and distress helps the client to gradually habituate to fearful stimuli and is the basis of this therapy approach (APA, 2020; VA 2024, February 01; 2024, January 11). Daily homework is essential.

Cognitive Processing Therapy (CPT)

Cognitive Processing Therapy (CPT) is a structured 12-session evidence-based psychological treatment for posttraumatic stress disorder (PTSD). It is a type of cognitive behavior therapy which focuses on evaluating and changing unhelpful cognitions related to traumatic events. (U.S. Department of Veterans Affairs [VA], 2022, November 09, and following; Resick et al., 2017a, and following). It is a protocol-based therapy and includes out-of-session homework. Clients are taught to recognize how the way in which they think about themselves and the world has changed as a result of their trauma. They learn to recognize negative thoughts and understand that these “Stuck Points” are inaccurate. Examples include, “I can’t trust anyone in any way,” and “It was my fault that

people died” (Resick et al., 2017a, p. 113.) Clients then learn ways to challenge inaccurate thoughts and develop new, more accurate perspectives related to their traumatic experience (VA, 2022, November 09). After developing the skill of recognizing and revising unhelpful thoughts, the client can continue to apply this skill outside of sessions (APA, 2017b). This therapy focuses on a chosen index trauma (Resick et al., 2017a, and following). The individual writes a statement regarding how the trauma has impacted them without describing the specific details of the trauma. Cognitive Processing Therapy originally included an additional written component in which the client wrote a detailed account of their index trauma. Currently, CPT can be administered with the written account (CPT+A) or without the written account (CPT). A core component of CPT is the clinician’s use of Socratic dialogue, which includes asking clarifying questions, challenging client assumptions, evaluating objective evidence, and challenging the client’s underlying/core beliefs. Daily homework is essential.

Eye Movement Desensitization and Reprocessing (EMDR)

Eye Movement Desensitization and Reprocessing therapy (EMDR) was developed by Francine Shapiro (2001; 2018). It is described by the EMDR International Association (1995-2024) as an eight-stage therapy using procedures and protocols, and includes bilateral stimulation, often eye movements, in which the meaning and emotions associated with traumatic events is changed (EMDR Institute, 2024; see also Cleveland Clinic, 2024). Treatment is typically delivered in 60–90-minute sessions for about three months (Beauvis et al., 2003; Cleveland Clinic, 2024). During the desensitization stage, the client focuses on a specific vivid visual image/target memory associated with the traumatic event while engaging in bilateral stimulation, usually eye movements, with

clients managing their emotions using emotion management tools taught in initial sessions (Beauvais et al., 2023; Cleveland Clinic, 2004). The client identifies components of the memory including the image, associated cognitions or beliefs about the self (e.g., “I am powerless”), and bodily sensations and emotions related to the memory, along with an alternative positive or preferred belief about themselves (e.g., “I now have choices” or “I survived it, and I am strong.”) (Beauvais et al., 2023; Cleveland Clinic, 2024; EMDR Institute, 2024). When the target memory no longer elicits distress from the client, and the preferred positive self-cognition feels true, reprocessing for that memory is complete (Beauvais et al., 2023). The treatment reduces both the vividness, and the emotion associated with traumatic memories (EMDR International Association, 1995-2024). Note that EMDR does not involve writing or speaking about the trauma or reviewing the trauma in detail, as is done in PE and CPT+A, or engaging in daily homework, as required by CPT, CPT+A, and PE (Beauvais et al., 2023; Cleveland Clinic, 2024; EMDR Institute, 2024).

Empirical Support for the Efficacy of PE, CPT, and EMDR

Research has demonstrated support for the efficacy of cognitive-behavior-based treatments and exposure treatments such as Prolonged Exposure (PE), Cognitive Processing Therapy (CPT), and Eye Movement Desensitization and Reprocessing therapy (EMDR) for treating posttraumatic stress disorder (PTSD). A meta-analysis by Watts and colleagues (2013) examined the efficacy of treatments for posttraumatic stress disorder. Their analysis showed large effect sizes for CBT-based treatments, including PE and CPT ($g = 1.26$) and for EMDR ($g = 1.01$), with medication showing a small to medium effect size of $g = 0.42$ (Watts et al., 2013).

Cusack et al., 2015, performed a review and meta-analysis evaluating 64 randomized control trials for various psychological treatments provided to adults with posttraumatic stress disorder (PTSD). The authors ranked the strength of evidence (SOE) for several forms of PTSD psychotherapy, with descriptors of low, medium, and high SOE (Cusack et al., 2015, and following). Their results showed high SOE for exposure therapy including manualized Prolonged Exposure (PE), moderate SOE for cognitive therapies including Cognitive Processing Therapy (CPT), cognitive therapy (CT), and other forms of Cognitive Behavior Therapy they described as CBT- mixed therapies. The authors found low to moderate SOE for Narrative Exposure therapy (NET) and Eye Movement Desensitization and Reprocessing therapy (EMDR). When examining PTSD symptom reduction, Cusack and colleagues (2015) found large effect sizes for EMDR, exposure therapies including PE, CPT, and other CBT-based therapies.

Additionally, the United States Department of Health and Human Services, Agency for Healthcare Research and Quality, funded a comparative effectiveness systematic review update assessing psychological and pharmacological treatments for adults with PTSD (Forman-Hoffman, et al., 2018, and following). Regarding psychological treatments, the authors concluded that cognitive behavior therapies (e.g. CBT-exposure therapy including Prolonged Exposure) showed high SOE in support of treatment efficacy regarding PTSD symptoms and loss of PTSD diagnosis. The authors found moderate SOE supporting the efficacy of Cognitive Processing Therapy (CPT) and Eye Movement Desensitization and Reprocessing therapy (EMDR) for the loss of PTSD diagnosis and reduction of PTSD symptoms. The efficacy of Narrative Exposure therapy was also assessed and showed moderate SOE regarding PTSD symptom improvement

and low SOE for the loss of PTSD diagnosis. Results are also provided for other therapies demonstrating low SOE or insufficient evidence supporting the outcome variables assessed. In sum, these and other studies demonstrate the efficacy of cognitive behavior and exposure treatments for PTSD such as PE, CPT, and EMDR.

Treatment Differences

When reading descriptions of PE, CPT, and EMDR, it is apparent that these approaches are different in nature, though each is a trauma-focused approach. The emphasis on imaginal exposure and *in vivo* exposure in PE makes this treatment particularly effective if completed (VA 2024, February 01). However, PE can be experienced as very stressful, and early termination rates can be high (Hundt et al., 2020; Kehle-Forbes et al., 2016; Varker et al., 2021; see also Hembree, Rauch, & Foa, 2003). Cognitive Processing Therapy with a written treatment narrative can also be challenging, and CPT without the narrative may be somewhat less so. Both forms of CPT are effective when completed (Berke et al., 2019; Holmes et al., 2019; Rothbaum & McSweeney, 2019). CPT's approach of evaluating and changing unhelpful cognitions related to traumatic events is different from the exposure-based approach of PE (APA, 2017b). However, the early termination rates for CPT can be relatively high as well (Schnurr et al., 2022; Varker et al., 2021). As mentioned earlier, one difficulty noted by early terminators is the emotional difficulty of these two treatments (Alpert et al., 2021; Hundt et al., 2017; Hundt et al., 2020). Also, PE and CPT require daily homework, which can be an additional barrier to completing the treatment protocols (Hundt et al., 2017; Hundt et al., 2020). Eye Movement Desensitization and Reprocessing therapy (EMDR) differs from CPT and PE in its utilization of a visual, image-based approach to trauma

engagement (Beauvais et al., 2023; Cleveland Clinic, 2004). Also, EMDR does not require homework, and early termination rates for EMDR are consistently lower than for PE and CPT (Lewis et al., 2020). Given these treatment differences as well as individual differences within clients, it may be that individuals who terminate early from one form of treatment may find another form of treatment a better fit for them.

The Proposed Study

Re-engagement of Previous Early Terminators

Though several studies have sought to better understand factors influencing PTSD treatment completion and early termination, there is a dearth of research purposefully evaluating the re-engagement of individuals who had previously terminated early from trauma-focused PTSD treatment. Given the high levels of early termination from trauma-focused PTSD treatment, the negative consequences of untreated PTSD over time, and the importance of completing a full treatment protocol in order to maximize client outcomes, research is needed regarding the re-engagement of early terminators back into trauma-focused PTSD therapy.

The purpose of the current study proposal is to re-engage individuals who terminated early from PE, CPT, and EMDR into an alternate trauma-focused treatment to discern if the alternative treatment provides a better fit for the participant, thus better enabling treatment adherence and completion. Individuals who began but did not complete one of these three trauma-focused treatments will be randomly assigned to one of the two remaining treatments. The outcome variable will be treatment completion or early termination. Additional quantitative analysis may be performed dependent on qualitative findings. Qualitative interviews will be conducted with completers and early

terminators to discern factors that influenced completion or early termination, and to assess the client's experience of re-engaging in treatment, and their experience of the alternate form trauma-focused PTSD treatment.

Hypotheses

Research comparing early termination rates for PE, CPT, and EMDR typically shows lower early termination rates for EMDR compared to CPT and PE (Lewis et al., 2020; Varker et al., 2021). For this reason, the quantitative hypothesis for the proposed study states that participants assigned to the EMDR group will demonstrate lower early termination rates than those assigned to CPT or PE. No hypotheses are stated for the qualitative portion of the study.

Methods

Study Design

This paper is a literature review and study protocol / proposal using a mixed methods design in which both qualitative and quantitative measures and analysis are utilized.

Participants and Recruitment

Participants will be veterans and service members who previously terminated early from PE, CPT, or EMDR outpatient treatment. A power analysis will be conducted to determine the sufficient number of participants for the study (Faul et al., 2007). Grant funding will be pursued, and, if funded, a small financial or gift card incentive will be offered to encourage participation. The possibility of pro bono treatment offered through the Sturm Center will be pursued as an incentive. Recruitment flyers will be posted at participating entities (see below) and interested applicants will be asked to complete a

Release of Information to allow verification of past treatment and early termination status with the previous provider. Interested applicants' history of trauma and non-trauma psychotherapy or counseling will also be assessed as a possible confounding variable.

The following entities will be contacted by study personnel to explore the possibility of working collaboratively on the proposed research project: the University of Denver Sturm Center; the U.S. Department of Veterans Affairs VA Eastern Colorado Health Care System in the Denver, Colorado and Colorado Springs, Colorado areas; Evans Army Community Hospital Department of Behavioral Health in Fort Carson, Colorado; the University of Colorado, Colorado Springs Health Circle Veterans Health and Trauma Clinic in Colorado Springs, Colorado; and local Veterans Service Centers/Outreach Centers. Necessary study approval will be obtained from appropriate entities including a site's Institutional Review Board, the Veteran Affairs Research and Development/ VA Human Subjects Committee, the Department of Defense Research and Development, and any other necessary approval and agreements will be obtained for all recruitment efforts.

Potential participants will be identified by clinicians at each site, permission to be contacted by study personnel will be obtained, and potential participants will then be contacted by research staff. Recruitment will also occur using IRB approved recruitment flyers posted in the clinics and hospitals associated with the study. An in-person meeting will be held with potential participants to review the study requirements and procedures, review the informed consent, and provide potential participants with the opportunity to ask questions about the study. Potential participants may sign the informed consent at this time, but this is not required. Some potential participants may wish to discuss

participation with their significant other before committing to the study, and they are encouraged to do so. An appointment will be made for interested potential participants to complete an audio-recorded assessment interview, and qualified individuals will then be randomly placed in a study condition per the randomization protocol. Participants will be provided with information regarding when to expect contact from their therapist to initiate treatment.

Inclusion/Exclusion criteria

To be eligible for this study, participants must have terminated early from PE, CPT, or EMDR in the past 6-12 months and demonstrate PCL-5 scores above 31 points. Individuals with active psychosis, suicidal ideation with clear intent, or a diagnosis of dementia will not be eligible for the study. Individuals currently taking prescription psychotropic medication will be asked to maintain medications at their current dosages unless medically contraindicated. Individuals who have recently started a prescription medication will be asked to wait four weeks to enable medication stabilization. Interested participants who are currently using psychedelics will be asked to abstain from use for the duration of treatment. To better enable generalizability, other mental health conditions, mild substance use as defined by the DSM-5-TR (American Psychiatric Association, 2022), and co-occurring couples or family therapy will not exclude participation in the study. However, these factors will be noted if present, and their possible impact on outcome results will be addressed in the discussion section.

Randomization

Randomization will be achieved through a computer-generated randomization feature of REDCap (Research Electronic Data Capture;

<https://projectredcap.org/software/>), a web-based application designed to support data capture for research studies. Data entry occurs online through participant-completed surveys or through project team members logging in to REDCap for data entry. A block randomization approach will be used, stratified by race (African American/Black; Other), sex, trauma type, and other variables as desired.

Definition of Completion

Completion of treatment will be defined as achieving a PTSD Checklist (PCL-5; Belvins et al., 2015) score of 30 or below for three consecutive assessments, or achieving a Subjective Units of Distress (SUDS; Wolpe, 1969, 1990) score of 20 or less on a 0-100 scale or a score of 2 or less on a 0-10 scale for three consecutive assessments for individuals receiving EMDR.

Measures

PTSD Checklist (PCL-5). The PTSD Checklist -5 (PCL-5; Belvins et al., 2015) is a 20-item self-report measure used to assess the severity of PTSD symptoms, as described in the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; *DSM-5*; American Psychiatric Association, 2013). Items are rated on a 5-point Likert-type scale (*0 = not at all to 4 = extremely*). Item scores are summed to create a total severity score, with a score range of 0 to 80. Higher total scores are indicative of greater PTSD symptom severity. A cutoff score of 31-33 or higher is considered indicative of probable PTSD (see <http://www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp>).

Patient Health Questionnaire (PHQ-9). The Patient Health Questionnaire - 9 (PHQ-9; Kroenke et al., 2001) is a 9-item self-report measure used for screening, diagnosing, monitoring, and assessing the severity of depression, as described in the

Diagnostic and Statistical Manual of Mental Disorders (4th ed.; *DSM-IV*; American Psychiatric Association, 1994). Symptom frequency in the last two weeks is rated on a 4-point Likert-type scale (*0 = not at all to 3 = nearly every day*). Item scores are summed to create a total score, with a score range of 0 to 27. Scoring instructions state that a depression diagnosis requires respondents to endorse a score of 2 or 3 on questions 1 and/or 2; question 9 must have a score greater than zero. Question 10 (*If you checked off any problems, how difficult have those problems made it for you to do your work, take care of things at home, or get along with other people?*) is not scored, and has four response choices: *Not difficult at all*; *Somewhat difficult*; *Very difficult*; or *Extremely difficult*. Question 10 must be endorsed as *Somewhat*, *Very*, or *Extremely difficult* to diagnose depression. Scores over 9 show a sensitivity of 88% and a specificity of 88% for the diagnosis of major depression. A score of 5 designates mild depression, a score of 10 designates moderate depression, a score of 15 designates moderately severe depression, and a score of 20 designates severe depression (Kroenke, et al., 2001).

Subjective Units of Distress Scale (SUDS). The Subjective Units of Distress Scale (SUDS) was originally developed by Wolpe (1969) as a self-report, one-item, 11-point Likert-type scale measuring subjective anxiety, where *0 = absolute calm* and *100 = the most anxiety ever experienced*. Wolpe (1990) later introduced a condensed version of SUDS with scores from 0 – 10. Over the course of time, the scale was adapted to measure a variety of subjective experiences (see Kim et al., 2008) and is now considered a measure of subjective distress where *0 = complete relaxation* and *100 = extreme distress*. The SUDS is routinely used as part of EMDR treatment.

Tobacco, Alcohol, Prescription Medication and Other Substance Use

(TAPS). The Tobacco, Alcohol, Prescription Medication and Other Substance Use (TAPS) screening tool (McNeely et al., 2016) will be used to assess substance use. Part 1 of the TAPS is a 4-item self-report tool assessing frequency of substance use in the past 12 months. Response choices include *Daily or Almost Daily; Weekly; Monthly; Less than Monthly; Never*. Any endorsement of use prompts additional substance-specific questions (Part 2) regarding substance use behavior in the past 3 months. Subjects respond *Yes* or *No* to up to nine substance-specific questions. The TAPS may be self-administered online or used as an interview by a healthcare provider. Scoring provides a risk level for each substance category from *0 = No Use in Past 3 Months*, *1 = problem use*, and *2 = substance use disorder* for tobacco, alcohol, and marijuana. A score of 2 for these three substances has adequate sensitivity for identifying DSM-5 Substance Use Disorder. This information and clinician follow-up questions will be used to assess suitability for the current study. Current use of legal or illegal psychedelics will also be specifically assessed. History of legal or illegal use will not preclude participation. However, participants will be asked to refrain from use during the course of treatment.

Session Rating Scale (SRS). The Session Rating Scale (SRS v.3.0; Duncan et al., 2003) is an assessment of therapeutic alliance comprised of a four-item rating scale using a 10cm continuous visual analog scale (horizontal line) for each item. Two related statements are on either end of the line. For example, *I did not feel heard, understood, and respected* on the left of the 10cm line, and *I felt heard, understood, and respected* is on the right of the 10cm line. The client is instructed to, “*Please rate today’s session by placing a hash mark on the line nearest to the description that best fits your experience.*”

The four SRS items measure the treatment session constructs of *Relationship, Goals and Topics, Approach and Method*, and *Overall*. The clinician measures in centimeters how far along the line between the two statements the client placed the mark. The measurements are summed, with a possible maximum of 40cm. See Campbell and Hemsley (2009) and Duncan and colleagues (2003) for the scale's psychometric properties. The SRS will be administered monthly. Analyses will be conducted to evaluate the impact of this variable and possible associated confounding effects.

Qualitative Questions

Veteran Pre-Treatment Interview. A standard intake interview will be utilized, with additional questions regarding factors such as trauma type, number of deployments, service era, combat experience, education, previous engagement in non-trauma-focused therapy, and chronic pain will be assessed. The PHQ-9 and PCL-5 will be administered at intake. The PCL-5, PHQ-9, and SRS will also be completed monthly.

Veteran Post-Treatment Interview (From Doran et al., 2021, adapted). *I am going to ask you a few questions about your experience in an evidence-based trauma-focused treatment for PTSD to find out what went well and what could have been better. Any information you could provide will be very helpful. This information will not be shared with your clinician or anyone outside of the research team. Do you have any questions for me before we begin?*

1. Which trauma informed treatment did you attend (CPT, PE, or EMDR)?
2. Can you provide me with a brief overview of how things went in treatment?
 - a. What went well? What could have gone better?

3. Did you have any negative feelings about the treatment or your therapist during therapy?
 - a. *If yes to above:* Did you express these feelings to your therapist?
(*If yes:* What happened? How did he or she respond?)
4. Do you feel you benefited from treatment? (*If yes:* How so?)
5. Did you complete a full course of treatment?
 - a. (*If no, move to the “early termination questions” below*)
 - b. (*If yes:*) Was there ever a time when you felt like ending therapy before you completed the protocol? What happened? What made you decide to stay?
6. What about the treatment worked well for you? Was there anything that did not work so well, or anything you wish had been done differently?
7. Did your therapist check in with you about your thoughts and feelings about the treatment? (*If yes:* How did that go?)
8. Is there anything that you think could be improved about the treatment you were offered?
9. How do you feel about the [*type of treatment received*] treatment? Would you recommend it to other veterans? Why or why not?

I am interested in understanding your experience of the current treatment compared to your experience of your previous treatment. I am also interested in understanding what it was like for you to enter treatment again. Any information you can provide will be very helpful. This information will not be shared with your clinician or anyone outside of the research team.

10. Which trauma focused treatment did you attempt previously (CPT, PE, EMDR)?
11. How did your experience of [*current treatment received*] differ from your previous experience of [*past treatment received*] treatment?
12. What did you like better about the current treatment? What did you like less about the current treatment?
13. Was there anything about the current treatment that made it easier to complete than the previous treatment?
14. Were there any other differences during the current treatment that helped you be able to complete treatment, including life/situational factors?
15. Is there anything else you would like to tell me about how this experience compared to your previous experience?

Early Termination Questions (From Doran et al., 2021, adapted). *I'm interested in understanding more about why you decided to end the treatment before completing all the sessions. We know that some veterans choose not to complete the treatment, but we don't understand why that is. Any information you could provide about what happened will be very helpful. This information will not be shared with your clinician or anyone outside of the research team.*

1. Why did you decide to end therapy before you completed the protocol?
What factors led to this decision?
2. Did you discuss wanting to end therapy before completing the protocol with your therapist before you stopped? (*If yes: How did that conversation go?*)

3. Did you discuss wanting to end therapy before you completed the protocol with your family, friends, or support person? (*If yes: How did that conversation go?*)
4. Was there anything that would have helped you continue that treatment?
5. Was there anything about the treatment that worked well for you? Was there anything that did not work so well, or anything you wish had been done differently?
6. Did your therapist check in with you about your thoughts and feelings about the treatment? (*If yes: How did that go?*)
7. Is there anything that you think could be improved about the treatment you were offered?

I am interested in understanding how your experience of the current treatment differed from your previous experience of treatment.

8. Which trauma focused treatment did you attempt previously (CPT, PE, EMDR)?
9. How did your experience of [*current treatment received*] differ from your previous experience of [*past treatment received*] treatment?
10. What did you like better about the current treatment? What did you like less about the current treatment?
11. Were there any other factors that occurred during the current treatment that impacted your ability to complete treatment, including life factors?
12. How do you feel about the [*current treatment received*] treatment? Would you recommend it to other veterans? Why or why not?

13. Do you think you will try trauma focused treatment again in the future?

Why or why not?

14. Is there anything else you would like to tell me about how this experience compared to your previous experience?

Statistical and Qualitative Analysis

Quantitative Analysis.

The percentage of participant completion and early termination will be calculated for each treatment type. Posttraumatic stress disorder symptoms will be assessed monthly using the PCL-5. Symptom change/reduction will be evaluated by comparing pre-treatment PCL-5 scores with PCL-5 scores from the most recent treatment assessment.

Qualitative Analysis. The qualitative portion of the study will use a grounded theory approach with thematic analysis (Braun & Clarke, 2006; Heydarian, 2016; Pope & Mays, 1995). Interviews will be professionally transcribed and reviewed for accuracy. The process of qualitative analysis will utilize ATLAS.ti software (<https://atlasti.com/>).

Discussion

The proposed study seeks to address the problem of early termination from three evidence-based, trauma-focused PTSD treatments (PE, CPT, and EMDR) using a mixed-methods approach. The study will evaluate the effectiveness of re-engaging individuals who previously terminated early from trauma-focused PTSD treatment into an alternative trauma-focused treatment (PE, CPT, or EMDR), by evaluating rates of treatment completion and symptom change. A semi-structured interview will gather qualitative data regarding the participant's experience of the current therapy, factors influencing

completion or early termination, the participant's experience of re-engaging in trauma-focused treatment, and their comparison of previous treatment with current treatment.

Possible limitations or confounding factors impacting the proposed study include the amount of previous psychotherapy, including both trauma-focused and non-trauma-focused therapy experienced by the participant, and/or length of time since the participants last attended therapy. Additionally, an attempt to screen for the degree of current substance use will be conducted. However, it is possible that self-reported use of substances may be inaccurate or optimistic. Also, undisclosed use of psychedelics, including micro-doses, could confound results for that participant. Given that the study population consists of veterans, results may not be generalizable to civilians or active-duty military. Additional limitations may become apparent as the study progresses. Other confounding variables could be the type of support offered by support persons/significant others, the support person's level of involvement and knowledge of the treatment process, and the level of participant sharing with support persons as these factors have been shown to impact completion rates.

Future research could include a quantitative study evaluating the impact of a pre-treatment intervention meeting on completion rates and symptom reduction for trauma-focused PTSD treatment. This pre-treatment intervention would occur between the clinician, the participant, and their support person(s) explaining the treatment process, what to expect from therapy, and how to best support their loved-one. It may be that such an intervention could increase completion rates given that these factors have been shown to enhance treatment completion in previous qualitative research studies. The prevalence and impact of PTSD, coupled with the high level of early termination yields a strong

motivation to develop strategies that enhance completion rates and thus maximize client recovery and quality of life.

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Appendix

An Alternative Perspective

In a review article, Steenkamp and colleagues (2020) present an alternative perspective regarding military-related PTSD treatment. The authors refer to a review of randomized control trials conducted in 2015 for PE and CPT that demonstrate a reduction in PTSD with large effect sizes for most studies, but note that study results were variable with high levels of non-response and little difference in effectiveness between PE/CPT and non-trauma-focused treatments (Steenkamp et al., 2020; see also Steenkamp et al., 2015; Resick et al., 2015; Resick et al., 2017b). Given high rates of non-completion and moderate rates of significant symptom improvement (31% to 42% of participants) (Litz, et al., 2019; Nidich et al., 2018), Steenkamp and colleagues (2020) suggest that military-related PTSD is not effectively managed for many individuals treated with PE and CPT, and that these treatments do not show a meaningful treatment benefit above non-trauma-focused therapies. Noting the emotionally demanding elements of PE and CPT, and in light of high rates of early termination, non-response, and under-response rates, the authors question the value of these emotionally demanding treatments compared to non-trauma-focused treatments such as Present-Centered Therapy (PCT), transcendental meditation, and sertraline, which the authors contend have similar efficacy and are more easily tolerated (Steenkamp et al., 2020). They introduce the ideas of switching treatments for non-responders, exploring more flexible, multifaceted, approaches, and the possibility of combining evidence-based treatments, especially for the complexity that is often present with military-related PTSD (Steenkamp, et al., 2020).