

Rates and Reasons for Veteran Mental Health Service Utilization Following Completion of Evidence-Based Trauma-Focused Treatment for PTSD

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Despite the effectiveness of prolonged exposure (PE) and cognitive processing therapy (CPT) for posttraumatic stress disorder (PTSD) in reducing symptoms of PTSD and co-occurring symptoms, emerging research suggests continued mental health service utilization (MHSU) following the completion of these interventions. Reasons for continued MHSU remain unknown despite its relevance to PE/CPT outcomes and implementation. The present study employed a mixed methods approach to explore rates and reasons for VA MHSU post PE/CPT. A national sample of 5,634 U.S. veterans who completed either PE or CPT were identified to quantitatively determine the frequency, type, and location of MHSU in the 12 months following PE/CPT completion. A random subsample of 60 veterans completed semistructured qualitative interviews to explore reasons for MHSU post PE/CPT. Findings suggest high MHSU; 98.4% of veterans attended at least one mental health appointment in the year following completion of PE/CPT, with an average attending 27.64 appointments in the year following treatment completion. Qualitatively, veterans, particularly those with low-to-moderate residual symptoms, described a preference for additional treatment to continue practicing and applying skills learned in treatment. Veterans expressed low self-efficacy to maintain treatment gains without support and accountability from their therapists and viewed ongoing treatment as a safety net until they felt more confident in their skills and stability of gains. Veterans with high residual symptoms indicated needing additional PTSD-specific treatment or treatment for a co-occurring condition. Notably, some veterans reported no additional treatment needs, despite continued engagement in care. Evidence-based strategies for facilitating self-efficacy and ongoing application of PE/CPT principles posttreatment are needed.

Impact Statement

Mental health service utilization among U.S. veterans following completion of prolonged exposure (PE) and cognitive processing therapy (CPT) is higher than previously reported. Veterans with low-to-moderate posttraumatic stress disorder symptoms indicated a perceived need for the continued practice of PE/CPT principles and therapist support in the face of low self-efficacy, and fear treatment gains would not be sustained without ongoing treatment. Results demonstrate a need to facilitate self-efficacy for the ongoing application of PE/CPT principles following successful completion.

Keywords: posttraumatic stress disorder, mental health service utilization, prolonged exposure, cognitive processing therapy, trauma-focused therapy

Posttraumatic stress disorder (PTSD) is a debilitating condition associated with significant impairments in daily functioning (Jellestad et al., 2021), high mental health and physical comorbidity (Kehle et al., 2011; Nichter et al., 2019), and elevated health care utilization (Crawford et al., 2015). Fortunately, evidence-based trauma-focused treatments (TFT) including prolonged exposure (PE; Foa et al., 2002)

and cognitive processing therapy (CPT; Resick et al., 2017) are safe and demonstrate both acute and long-term effectiveness in civilian and veteran populations (Cusack et al., 2016; Kline et al., 2018). Although dropout and nonresponse remain problematic for a significant minority of patients (Edwards-Stewart et al., 2021), up to 70% of veterans completing PE or CPT experience significant

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reductions in symptoms and improvements in functioning with one third no longer meeting criteria for PTSD (Steenkamp et al., 2015). Consequently, these treatments are recognized as first-line interventions for PTSD (Ostacher & Cifu, 2019) and have been subject to widespread dissemination efforts across VA (Karlin et al., 2010) and community settings (Charney et al., 2019).

PTSD Treatment and Health Care Utilization

Symptoms and functional impairment are the well-documented drivers of mental health service utilization (MHSU). PTSD is associated with higher health care utilization in both Vietnam era (Marshall et al., 1998) and post-9/11 veterans (Harper et al., 2022). Research has predominantly examined predictors of MHSU with an implicit assumption that more use is good and less use is bad (Johnson & Possemato, 2019). In the context of examining access to and initiation of care, this frame is likely appropriate. However, as access to effective, evidence-based treatment has expanded, there is a need to understand the impact of effective treatment on health care utilization. Presumably, the effectiveness of PE and CPT should be reflected in reduced frequency of mental health care utilization; as veterans have fewer PTSD and co-occurring symptoms, their need for continued treatment would be expected to decrease.

Only three studies to date have examined the impact of TFT on MHSU. In a chart review of 60 veterans receiving PE for combat-related PTSD, completers ($n = 44$, 74% of the total sample) experienced clinically meaningful symptom improvement and had lower MHSU rates within the PTSD clinic in the year posttreatment compared with noncompleters (Tuerk et al., 2013). However, in the year following PE, treatment completers nevertheless attended an average of 4.1 mental health appointments (compared to an average of 7.4 appointments in the year prior to initiating PE), and only 25% of completers used mental health services once or not at all in the year following treatment (Tuerk et al., 2013). In another sample of 70 veterans who completed PE or CPT, PTSD symptoms significantly improved, with treatment utilization significantly decreasing from 20.3 to 16.0 visits from the year prior to the year posttreatment (Meyers et al., 2013). The study identified all appointments with a mental health stop code, including the emergency department, mental health clinics, and primary care; however, upon comparing specific appointment types, primary care and emergency visits remained relatively unchanged from pre- to post PE/CPT, highlighting the impact of TFT on mental health appointments more directly (Meyers et al., 2013). Finally, in a sample of 40 veterans who completed PE or CPT in a VA PTSD outpatient clinic, 77.5% continued to engage in treatment within the clinic following completion of the TFT including individual, group, and/or psychopharmacological care (Doran & DeViva, 2018). Nearly two thirds (65%) continued to be diagnosed with PTSD, though, as noted by the authors, it was unclear whether patient diagnoses were reevaluated following completion of the TFT for the majority reported significant decreases in self-reported PTSD symptoms, and thus diagnoses may have simply been retained in the chart. Of note, only 10% were discharged from the clinic after completing PE or CPT (Doran & DeViva, 2018).

Consistent with the wide research base supporting the efficacy and effectiveness of PE and CPT (Cusack et al., 2016; Kline et al., 2018), treatment completion in the above studies was associated with improvements in symptoms (Doran & DeViva, 2018; Meyers et al., 2013; Tuerk et al., 2013). However, despite symptom

reduction, veterans continued to engage in services post TFT, suggesting veterans have ongoing mental health needs or otherwise find purpose and value in MHSU. In the three studies to date, there are also considerable differences in rates of MHSU following TFT, which may reflect interfacility differences in clinic structures or norms that impact utilization. Given this variability, the examination of post TFT MHSU across the Veterans Health Administration (VHA) is warranted. Furthermore, the reasons for continued engagement in care following TFT are unknown and represent a critical gap in the literature. While Hundt et al. (2017) found that nearly all veterans who had completed TFT perceived ongoing treatment needs, what those needs entail has not been examined (Hundt et al., 2017). Given the paucity of research in this area, the present study examined MHSU following TFT completion using VHA's electronic medical record (EMR) among a national sample of veterans who completed PE or CPT. Semistructured qualitative interviews were then conducted with a subsample of these veterans to gain a more comprehensive understanding of veterans' perceived needs for mental health treatment following PE/CPT completion.

Method

The institutional review board of the Minneapolis VA Healthcare System approved all study procedures. All participants engaging in the qualitative interviews provided verbal informed consent prior to study participation; the requirement for written documentation of informed consent was waived. Extraction of data from the EMR was conducted with a waiver of informed consent.

Participants

Participants included in the EMR data extraction were veterans ($n = 5,634$) who completed PE or CPT in routine clinical care at VA clinics nationwide between May 2015 and May 2017. VA administrative data generated from VA providers' use of templated progress notes were used to identify veterans who completed PE or CPT in routine clinical care. Completion was defined as attending a minimum of 10 PE or 12 CPT sessions in addition to having a "final session" note which was used to determine completion date. Veterans did not have to be considered treatment responders to be included. Participants completing the qualitative interviews were randomly selected from the quantitative sample using stratified purposive sampling (Patton, 2015). The sample was stratified by service era (Iraq/Afghanistan, Post-Vietnam/Gulf War, Vietnam), type of therapy (PE, individual CPT, group CPT), and gender (male, female) and selected to reflect racial and ethnic diversity. Posttreatment PTSD was assessed via the PTSD Checklist for *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (PCL-5; Weathers et al., 2013) just prior to the qualitative interviews. Additional details regarding the qualitative sample selection are available in a previous publication (Kehle-Forbes et al., 2022).

Demographic data were not extracted for the quantitative sample. A total of 60 veterans who completed PE or CPT were interviewed; however, the question regarding post TFT treatment needs was added to the interview guide during the iterative interview guide refinement. As such, 49 veterans reported on this issue and are included in the analysis. Of the 49 included veterans, 69.4% were men ($n = 34$; 30.6% women, $n = 15$), and a plurality (46.9%) identified as Iraq/Afghanistan veterans ($n = 23$; 18.4% post Vietnam, $n = 9$; 34.7%

Vietnam, $n = 17$). A majority of the sample identified as White (67.3%, $n = 33$) or Black/African American (20.4%, $n = 10$) and not Hispanic (83.7%, $n = 41$). Over half of the sample completed PE ($n = 28$; 57.1%), 32.7% ($n = 16$) completed individual CPT, and 10.2% ($n = 5$) completed group CPT. The average posttreatment PCL-5 score at the time of the interview was 36.85 ($SD = 15.92$). Using a cutoff of 32 on the PCL-5, 38% of the sample no longer screened positive for PTSD at the time of the interview.

Procedure

Quantitative Administrative Data

Delivery of PE and CPT within VA is documented using templated progress notes that create a unique data element stored in VA's Corporate Data Warehouse. Thus, using administrative data generated from providers' use of templated progress notes, all veterans who received either PE or CPT during the recruitment period were identified using administrative data. Those who received at least 12 CPT sessions or 10 PE sessions from the same provider without a 6-week or greater break between sessions were categorized as treatment completers for the quantitative analyses. Administrative data regarding veterans' MHSU were also extracted from the Corporate Data Warehouse for the 12 months following PE/CPT completion (the completion date was the date of the final PE/CPT template). Mental health encounters were identified via primary and secondary stop codes (standardized codes used to characterize VA outpatient clinics) indicative of a mental health visit. In addition to the total number of mental health encounters, the encounter type, defined by Current Procedural Terminology codes (i.e., individual psychotherapy, group psychotherapy, psychiatric services), and location of encounter, that is, PTSD Clinical Team (PCT), Primary Care Mental Health (PCMH), and other clinics, were extracted.

Procedure

Qualitative Interviews

A random sample of veterans meeting the sampling strategy described above was selected for manual chart review to confirm eligibility. Eligible veterans were sent a letter informing them of the study and inviting them to participate in a 90-min telephone interview to discuss their PE or CPT experience. Veterans were informed that the purpose of the interview was to collect information about their experiences with PE or CPT, that the interview would be recorded, and that they would be paid \$75 for their time participating in the interview.

Interviews focused on challenges faced in completing treatment and processes and strategies that facilitated treatment completion. The interviews also queried veterans' needs (if any) for continuing treatment post PE/CPT. Contents from the following interview questions were analyzed for the current article, "What did you think would happen after you completed PE/CPT? What made you think that? What (if anything) did you feel like you needed from treatment after PE/CPT?" Interviewers held doctoral- or masters-level degrees in clinical or counseling psychology. Please see [Kehle-Forbes et al. \(2022\)](#) for additional details regarding interview guide development and content.

Participants' gender, service era, and treatment type were extracted from the EMR. Veterans' race, ethnicity, and posttreatment PTSD

symptoms as measured by the PCL-5 were collected via mailed survey prior to the interview or verbally at the time of the interview if not received in advance.

Data Analytic Plan

Quantitative Analysis

Descriptive statistics were calculated for post PE/CPT MHSU. The mean, standard deviation (SD), median, and corresponding interquartile range (IQR) were calculated for overall utilization and for mental health encounters in the prespecified treatment locations (PCT, PCMH, other) and encounter type (individual psychotherapy, group psychotherapy, psychiatric services). The proportion of veterans who received zero, 1–2, 3–5, 6–12, and more than 12 mental health appointments in the 12 months following completion was also calculated.

Qualitative Coding and Analysis

Interviews were audio-recorded, professionally transcribed verbatim, and reviewed for accuracy. Two study authors (David M. Horton and Hope Salameh) conducted an inductive, thematic analysis to identify veterans' perceived post PE/CPT treatment needs. The coders independently reviewed responses to the questions included in this analysis to develop an initial draft codebook. The coding pair then met to compare draft codebooks, discuss differences, and agree on a shared draft codebook. Next, they independently coded 10% of transcripts using the draft codebook, reconvened to discuss discrepancies and any identified problems with the codebook discovered during the initial coding, and developed the final codebook. All responses were captured by at least one code and could be coded with multiple themes, as indicated. The two coders coded each remaining transcript independently and discussed discrepancies until consensus was reached for all cases. Codes were synthesized into themes by the senior author (Shannon M. Kehle-Forbes); the resulting themes were then reviewed by both coders.

Results

Quantitative Description of MHSU

In the 12 months following TFT completion, veterans attended an average of 27.64 ($SD = 41.38$) VA mental health appointments, averaging approximately one appointment every other week. The median number of appointments attended was 16, with an IQR of 24. A majority of appointments were with general mental health providers (as compared to primary care or PTSD specialty clinics; see [Table 1](#)). Individual psychotherapy appointments were most common, followed by group psychotherapy and medication management. However, it should be noted that appointments coded in these three categories comprised less than 50% of total mental health encounters during the study period. Indicators of dispersion were large across all estimates, suggesting considerable individual-level variability in MHSU.

Nearly all TFT completers (98.4%) attended at least one mental health appointment in the year following completion. Only 1.6% of veterans had zero appointments, and a small percentage (5.8%) attended 1–2 appointments. One tenth (10.4%) attended 3–5 appointments, nearly a quarter (24.3%) attended 6–12 appointments,

Table 1
Veteran Affairs Mental Health Service Use in the 12 Months Following Completion of Trauma-Focused Therapy (n = 5,634)

Characteristic	M (SD)	Mdn (IQR)
Total appointments	27.64 (41.38)	16 (24)
Appointment location		
PTSD specialty clinic	5.45 (12.54)	1 (6)
General mental health ^a	17.10 (35.69)	6 (15)
Primary care/mental health integration	5.08 (5.98)	4 (5)
Appointment type		
Individual psychotherapy	6.24 (8.65)	3 (8)
Group psychotherapy	5.20 (15.83)	0 (2)
Medication management	1.67 (2.55)	0 (3)

Note. Mdn = Median; IQR = interquartile range; PTSD = posttraumatic stress disorder.

^a Includes all mental health clinics other than PTSD specialty clinics and those located within primary care.

and over half (57.9%) had more than 12 encounters. These rates differed by location and type of services (see Table 2). Psychotherapy use was common, with 81.4% attending at least one psychotherapy appointment during the study period and approximately one third attending more than 12 psychotherapy appointments. Conversely, just under half of veterans (48.6%) attended an appointment for medication management following TFT completion.

Qualitative Themes Describing Post TFT Treatment Needs

Seven interrelated themes describing veteran-reported post TFT needs were identified.

Continued Application of TFT Strategies

Most veterans discussed the need to continue practicing the strategies and applying the principles learned in TFT. This theme was particularly common in those with low-to-moderate residual PTSD symptoms and was sometimes described as necessary to maintain gains already realized, often in the context of continuing to approach rather than avoid trauma reminders. Other veterans described goals of continuing to reduce symptoms; anger and reexperiencing symptoms were specifically mentioned as areas where further improvement was wanted. While the question probing for post TFT needs to be focused on treatment needs, some veterans discussed their intentions to continue what was learned independently outside of formal mental health treatment. As one veteran who completed PE relayed,

Part of exposure is living, like really living it. I decided to drive around the United States with my kids. It's really difficult, but I'm making it happen because all of my nightmares go with driving. ... So, I'm going to get the real exposure driving around.

Similarly, a veteran who completed CPT reported that, while he expected to continue encountering stuck points, he now had the skills needed to address them. He said, "It's something that I [have] to practice on a daily basis. But because of what we went over in my lessons. ... I won't be stuck as long as [before CPT]." Multiple veterans reported that their therapists set this expectation throughout treatment. In these cases, the veterans' understanding was that they

would learn principles during therapy that they would continue to apply independently following completion. Of note, while some of these veterans reported not having additional formal treatment needs (as described below), others planned for or desired additional services in addition to their independent skill use.

Some veterans reported a need to continue to practice the skills used in therapy via ongoing appointments with their TFT therapist. For some, this was related to their belief that 12 sessions were insufficient to thoroughly address their trauma-related symptoms. For a small number of veterans, content or symptoms not targeted during the primary course of TFT were being addressed. For example, a few participants discussed the need to process additional traumas. One veteran who completed CPT said,

I have multiple traumas ... and so what we did is we just picked one trauma and we focused on it and then the tools are applicable to my

Table 2
Number of Mental Health Appointments by Appointment Setting and Type in the 12 Months Following Completion of Trauma-Focused Therapy (n = 5,634)

Characteristic	% (n)
Appointment location	
PTSD specialty clinic	
0 appointment	49.25 (2,775)
1–2 appointments	15.42 (869)
3–5 appointments	9.96 (561)
6–12 appointments	12.28 (692)
13 or more appointments	13.08 (737)
General mental health ^a	
0 appointment	15.57 (877)
1–2 appointments	15.96 (899)
3–5 appointments	15.42 (869)
6–12 appointments	20.07 (1,131)
13 or more appointments	32.98 (1,858)
Primary care/mental health integration	
0 appointment	10.10 (569)
1–2 appointments	27.88 (1,571)
3–5 appointments	30.58 (1,723)
6–12 appointments	23.78 (1,340)
13 or more appointments	7.65 (431)
Appointment type	
Individual psychotherapy	
0 appointment	22.74 (1,281)
1–2 appointments	24.97 (1,407)
3–5 appointments	15.71 (885)
6–12 appointments	19.95 (1,124)
13 or more appointments	16.63 (937)
Group psychotherapy	
0 appointment	68.39 (3,853)
1–2 appointments	7.12 (401)
3–5 appointments	4.97 (280)
6–12 appointments	7.83 (441)
13 or more appointments	11.70 (659)
Medication management	
0 appointment	51.38 (2,895)
1–2 appointments	22.17 (1,249)
3–5 appointments	18.49 (1,042)
6–12 appointments	7.45 (420)
13 or more appointments	0.50 (28)

Note. PTSD = posttraumatic stress disorder.

^a Includes all mental health clinics other than PTSD specialty clinics and those located within primary care.

other traumas as well. I think working through one of the other traumas, maybe help with that.

Similarly, a veteran who completed PE stated, “[Treatment] brought up some old angst and issues in my life that I think I could benefit from [PE]. I may need to open that door again.” More commonly, veterans reported that additional contact with their therapist was needed for accountability and stability, as described in the subsequent theme.

Accountability and Emotional Support

A common post TFT need was ongoing contact with a mental health provider for accountability and emotional support. The need for accountability often co-occurred with the need for continued application of TFT strategies described above among those with low-to-moderate residual PTSD symptoms. Specifically, some veterans reported the desire for someone to check in with regularly to ensure they persisted in applying the new principles they had learned in TFT. One veteran who completed PE said,

Just hoping that you wouldn't slide back after all that being exposed. Just knowing that there is somebody there and that you can talk because sometimes if you don't talk it gets ... you go back in a shell or a hole.

As illustrated in that quote, many veterans worried about being able to maintain or continue to build on their gains without ongoing therapist contact. A few participants described their need as akin to a sponsor in Alcoholics Anonymous as they continued implementing the often-challenging behavior change involved in TFT. While most veterans specifically referenced their TFT therapist's role in providing this accountability, others referenced a range of people who could serve in this role (e.g., Alcoholics Anonymous sponsors, support groups, case managers/non-TFT providers).

Ongoing emotional support was a related need relayed by some participants across levels of PTSD symptom severity. As one participant said, “I need that assurance right now—I still need some support. I was a little broken and [my TFT therapist] helped me put things back in perspective and it keeps me from wearing out my family.” Another veteran reported the following need, “To be able to say to my therapist I'm having a little problem and I would like to sit down and see if I can get past this so that I don't go back to where I came from.” This theme often co-occurred with the desire to have a therapist as a touchstone when needed, as described in greater detail below.

A Safety Net

Some participants expressed uncertainty about the stability of the gains made in TFT. As one participant who completed PE and recently had large reductions in both PTSD and Substance Use Disorder symptoms said, “I don't know if scared is the right word. I've recovered so much that it kind of frightens me a little bit that I have, because it's almost as though I'm living in this honeymoon phase.” Similarly, other participants noted that the improvements felt recent and tenuous, especially given the chronicity of many veterans' PTSD symptoms. As one veteran who completed CPT relayed, “Towards the end once I started getting all the worksheets together and actually it started clicking for me, it was already over. ... It was like I was on my own again.” Participants expressed the desire for ongoing contact with their TFT therapists until they

felt as though their treatment gains had solidified or they became more confident with their improvements in the face of ongoing stressors or trauma reminders. A small number of participants specifically expressed the desire for regular appointments for this purpose, but more often veterans expressed the desire to be able to reach out to their therapist as needed in case of symptom worsening. One veteran expressed,

[My therapist] said if I want to do something else I can call her. Right now I feel good and I don't know if I need anything. But if I slack off, then I know that I've got to start going back.

Getting Back to Life

Some participants with low-to-moderate residual symptoms discussed their desire to work toward reengaging in valued activities or building meaning in their lives. Increasing social connectedness was the most common domain in which veterans wanted to see improvements. Battling isolation, building social connection, participating in religious institutions, and engaging more fully in activities with loved ones were specifically mentioned. As one veteran who completed PE said, “What I still need is to be emotionally reconnected to other people's feelings, because that has been cut and kind of not able to be reconnected. [I need to have that] feeling, that connection like I once did.” Of note, while these responses were offered in response to the query about post TFT treatment needs, veterans did not explicitly discuss the need for treatment related to this goal and frequently discussed pathways to meeting these goals in their daily lives. Finally, although less common, some participants discussed the need to give back to other veterans (e.g., learning how to help prevent suicide) since their symptoms had improved.

Additional Treatment Not Needed

A substantial minority of participants did not identify any additional treatment needs after completion of TFT. As one veteran who finished CPT reported, “I think I have the tools to deal with situations that I wasn't able to deal with before. That's how I look at it.” Not surprisingly, this theme was more common among those with low-to-moderate residual PTSD symptoms. Although, as this quote illustrates, an absence of symptoms was not necessary for participants to feel as though additional treatment was not needed,

I don't really think I [need additional treatment]. The nightmares have decreased some. Even when I still have the dreams, I feel like I process them much better, whereas before it would have ruined my night and possibly the next day. Now I just kind of accept them for what they are and then let them go. And then it's not a problem. ... I just kind of take it as what it is. I'm able to process them better now.

For many who endorsed this theme, they acknowledged that there would be support available from their therapist if needed in the future. As this CPT completer reported,

I was scheduled I think a month after the end of CPT to meet with [my therapist] ... at that appointment I left the door open, but I said I think we should end this. And if I feel a need to connect, I'll make an appointment.

Treatment Needs Unknown

A substantial minority of veterans were not able to clearly articulate future treatment needs or targets but indicated that they were planning to continue to engage in mental health services. As may be expected, this was true among veterans with high levels of residual PTSD symptoms. Because TFT had been only minimally helpful, they reported needing additional treatment for trauma-related symptoms. As this veteran who completed PE with high residual symptoms said,

I didn't know what options I had after that. I wish I knew [what I needed]. I wish I knew more about it. I'm the type that if I knew there was a solution somewhere along the line I would study that solution myself and try to push it.

Often in these descriptions, veterans reported that they had additional mental health appointments scheduled to determine a new treatment plan for their trauma-related symptoms. They also often expressed resignation or hopelessness that future treatment would be helpful. This resignation is displayed in the response of a veteran who completed CPT with high residual symptoms, "I don't know. I don't know. I don't know, I don't know anything."

Uncertainty about what would come next from treatment was also present among those with low and moderate PTSD symptoms. These veterans were not able to identify specific treatment goals or next steps but assumed that they would participate in additional treatment. In several cases, these veterans' TFT therapists set this expectation from the outset of treatment. As one veteran relayed, "my therapist said we'll continue CPT, we'll finish it, and then you'll have other options. . . . You can continue to see me. We went over all that." Interestingly, a small number of participants expressed interest in intensive treatment following improvements in TFT. One participant who completed CPT said,

I don't know yet [what I hope to get out of treatment]. After I got through the individual therapy, I don't know what else is there unless I go inpatient. But I work now, so I don't have enough time to take off two months to go into an inpatient program.

Treatment for a Co-Occurring Condition

Rarely, veterans mentioned the desire to immediately initiate psychotherapy for another concern. Future treatment targets mentioned included treatment for pain, depression, insomnia, and generalized anxiety. Some were planning a specific course of therapy, for example, cognitive behavioral therapy for insomnia or mindfulness for anxiety, while others did not yet have specific treatment plans.

Discussion

This mixed methods study of a national sample of veterans found higher than expected rates of MHSU following completion of PE/CPT. For many, continued treatment was driven by veteran beliefs about the perceived need for additional practice and reinforcement of TFT skills. Additional benefits of ongoing therapy, including general emotional support and accountability, also drove the desire for continued engagement in mental health services. A significant minority indicated no additional treatment needs following TFT, yet nearly all veterans in this sample attended at

least one mental health appointment in the year following PE/CPT completion, reflecting a potential mismatch between perceived needs and actual MHSU. Findings additionally suggest higher rates of MHSU than previously reported (Doran & DeViva, 2018; Meyers et al., 2013; Tuerk et al., 2013) and expand upon past work by qualitatively identifying reasons for continued use.

A perceived need to continue practicing TFT strategies was one of the most prominent reasons for continued mental health engagement. Participants spoke about the desire for continued practice and application of TFT strategies to maintain gains or continue reducing symptoms, particularly residual anger and reexperiencing symptoms. Residual symptoms are common following TFT (Larsen et al., 2019), and research on variable-length protocols suggests that continued treatment sessions yield improved therapy outcomes, including fewer residual symptoms and improved functioning (Galovski et al., 2012; Resick et al., 2021). However, our data also revealed that some veterans believed they could adequately continue applying TFT strategies *outside* a formal therapeutic context, highlighting the importance of shared decision making and collaborative treatment planning (Elwyn et al., 2012), as patients with low-to-moderate residual symptoms may not necessarily want nor perceive a need for continued services.

Veterans in this sample spoke about the desire for ongoing emotional support and accountability from mental health providers. The therapeutic alliance serves an important role in the success of TFT, including retention (Keller et al., 2010; Sijercic et al., 2021) and outcomes (Held et al., 2022; Keefe et al., 2022; Saraiya et al., 2023) and may be an important construct to measure throughout TFT, such as via the Working Alliance Inventory (Horvath & Greenberg, 1989). Irrespective of posttreatment symptom severity, many spoke about wanting to have contact with their therapist as little or as often as needed to ensure gains solidified and to bolster confidence in the use of skills. Furthermore, patients spoke about the reassurance that came from knowing they could outreach to their therapists for support if and when needed in the future, suggesting that immediately post TFT, patients struggle with low self-efficacy and confidence in implementing TFT skills. Helping patients become their own therapist and use TFT skills on their own are important treatment goals for both PE and CPT (Foa et al., 2002; Resick et al., 2017); however, research investigating changes in self-efficacy as a result of TFT has been limited. Monitoring self-efficacy over the course of treatment, such as via the general self-efficacy items for the Patient-Reported Outcomes Measurement Information Systems (Salsman et al., 2019), addressing patient concerns or fears, and implementing strategies for bolstering self-efficacy may be important treatment targets for optimizing response from PE/CPT. Interventions designed to improve self-efficacy *post* TFT may also be beneficial, as further described below.

Research examining the potential unintended consequences of having therapists serve as a touchstone or safety net is also needed to guide collaborative discussions about post TFT care. For example, ongoing, open-ended therapist contact or availability may inadvertently reinforce safety behaviors for patients who believe they are incapable of managing their symptoms without the support of a mental health professional (Blakey & Abramowitz, 2016). It is also possible that systemic factors may influence patient preference for continued MHSU. While wait times for initiating mental health care are shorter in VA than community settings, waits for those establishing care can

exceed 1 month and are variable across medical centers (Feyman et al., 2022). Furthermore, there are often multistep processes that one must go through to be eligible for TFT (Ranney et al., 2022). Thus, it is possible that concerns about losing one's spot within the mental health system soon after navigating the process to access TFT may drive some patients to keep up with regular mental health appointments "just in case." Education about pathways and timelines for reestablishing care may be effective in easing some of these concerns, given VA policies that facilitate easy reentry to care for prior patients (e.g., retaining a mental health treatment coordinator for 2 years after a mental health visit).

Findings from this study also suggested that many veterans desired building connections and further re-engaging in valued activities post TFT. A robust literature base highlights the importance of social support for mental health and well-being among trauma survivors (Kaniasty, 2012; Sippel et al., 2015). Connecting with others, participating in valued activities, and even obtaining emotional support and accountability following TFT are all needs that may be best met outside the mental health system. A plethora of community-based veteran groups exist for these purposes, such as the Women Veteran's Network (WoVeN; Galovski et al., 2022), Team Rubicon (Kranke et al., 2017), and peer-support groups (Drebing et al., 2018). Connecting with other veterans in recovery from PTSD in their communities would meet many veterans' identified post TFT needs by helping to bolster social connections, encourage reengagement in valued activities, and improve functioning for veterans. Such connections could be encouraged by TFT therapists in the context of discussing treatment termination and bolstering veterans' support networks.

Quantitative findings from this study highlight frequent and widespread MHSU, yet the qualitative findings suggest many veterans do not perceive a need for this level of services. Although some veterans, particularly those with high levels of residual symptoms, identified additional treatment needs that likely warrant engagement in regular psychotherapy (e.g., additional TFT, treatment for co-occurring conditions), some noted additional treatment was not needed, whereas others expressed unknown treatment needs but acknowledged that there was an inherent assumption they would participate in additional treatment. This presents a unique opportunity to both more accurately address veteran needs and reduce demand on VA's mental health system, which may be necessary for the sustained implementation of TFTs. A move to episodic care, wherein brief intensive periods of treatment are followed by breaks from mental health care once the acute treatment needs have been met, may meet the needs of the system and many veterans. PE and CPT are relatively resource-intensive treatments, requiring 3–4 months of weekly 60- to 90-min therapy sessions. A qualitative study exploring determinants of sustained implementation of PE and CPT in VA outpatient PTSD clinics found that clinics with high PE and CPT reach (i.e., who had highest proportion of veterans in psychotherapy receiving PE or CPT) were those who utilized screening procedures to ensure patients coming to the clinic were interested in PE and CPT and had a clinic "back door" that enabled clinicians to refer patients to another mental health clinic post TFT rather than retain patients within their clinic (Sayer et al., 2017). Such procedures help to manage provider workload that is negatively associated with TFT sustainability and implementation (Mohr et al., 2018). In this study, two thirds of mental health appointments in the year following

PE/CPT completion were in general mental health clinics, suggesting many VA outpatient PTSD clinics may already be employing these structural changes. Two past studies on MHSU following PE/CPT primarily focused on service utilization within PCT clinics only (Doran & DeViva, 2018; Tuerk et al., 2013), thus limiting understanding of broader mental health utilization and potentially explaining why rates in the present study were higher than previously reported. It is unclear what impact continued utilization in general mental health may have on TFT sustainability. While it stands to reason that continued engagement in services when not needed, even in nonspecialty clinics, would create high burden on the overall mental health system and reduce TFT reach, this should be an area of future study.

Future research should also consider the potential role that therapists have in influencing post TFT service use. Research suggests providers have concerns about patient readiness for trauma-focused therapy (Hamblen et al., 2015; Osei-Bonsu et al., 2017) that impact clinical decisions to provide evidence-based interventions (Loskot et al., 2022); providers may have similar beliefs about veterans' readiness to step down from an episode of treatment, and such beliefs may impact clinical decisions post TFT. We are not aware of any research examining providers' perceptions of whether PE/CPT meets the full range of patient needs; however, it is likely therapists play a pivotal role in MHSU by setting expectations for patients about the need and duration of their mental health care. Understanding provider beliefs may help elucidate other targets for intervention, such as provider trainings and TFT provider consultation groups.

For patients with continued treatment needs, the VA/Department of Defense Clinical Practice Guidelines for the Management of PTSD and Acute Stress Disorder and the American Psychological Association guidelines both recommend that in cases of partial response, treatment should be altered, such as by adjusting the frequency and intensity of care (Guideline Development Panel for the Treatment of PTSD in Adults, American Psychological Association, 2019; VA/DoD Clinical Practice Guideline Working Group, 2017). Given the average biweekly (rather than weekly) mental health utilization found in this study, it is likely this is happening informally, yet there may be benefits to formalizing this approach to be most effective and to more explicitly target veteran concerns, including generalization of TFT skills and self-efficacy. Additional work investigating treatments post TFT is needed both for nonresponders as well as responders expressing additional treatment needs. Given the veteran preference for therapist support, a therapist-guided self-management program may be particularly beneficial. It would encourage an episodic, rather than chronic, model of mental health care, thereby increasing the sustainability of interventions and reducing the overall burden on the mental health system. Finally, interventions that add to the efficacy of PE/CPT are needed to optimize treatment delivery and patient response.

The findings of this study must be considered with respect to several limitations. While all mental health encounters were captured, a significant proportion of visits were not categorized by type (e.g., psychotherapy, medication management), thereby limiting the full picture of the specific services veterans used post TFT. As is true for all personal recollections, the retrospective reflections may not reflect all veterans' perspectives and may have been influenced by treatment received since TFT completion, although interviews were conducted soon after completion.

Nevertheless, the study used a large national and diverse sample of veterans and offers a clearer understanding of reasons for continued MHSU. Given the all-veteran sample of patients receiving care in a VA, findings may not generalize to nonveteran samples or non-VA settings. Additionally, this study specifically examined patient perspectives. As previously noted, it is possible that providers may inadvertently convey to veterans belief that they need continued care or otherwise promote continued MHSU.

It is important to note that MHSU is neither “good” nor “bad,” and the ideal level of use is likely different for different people. However, it is critical for patients to receive high-quality care that appropriately matches clinical need and patient preference in order to optimize outcomes. Although some patients may benefit from additional TFT, others may benefit from a lower-burden intervention to build self-efficacy, participation in peer-to-peer support groups, or even no formal engagement at all. Finally, TFT completion does not necessarily equate to responder status; some patients in this study ended treatment with high symptoms and functional impairment, highlighting the need for additional strategies for nonresponders.

References

- Blakey, S. M., & Abramowitz, J. S. (2016). The effects of safety behaviors during exposure therapy for anxiety: Critical analysis from an inhibitory learning perspective. *Clinical Psychology Review, 49*, 1–15. <https://doi.org/10.1016/j.cpr.2016.07.002>
- Charney, M. E., Chow, L., Jakubovic, R. J., Federico, L. E., Goetter, E. M., Baier, A. L., Riggs, D., Phillips, J., Bui, E., & Simon, N. M. (2019). Training community providers in evidence-based treatment for PTSD: Outcomes of a novel consultation program. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*(7), 793–801. <https://doi.org/10.1037/tra0000427>
- Crawford, E. F., Elbogen, E. B., Wagner, H. R., Kudler, H., Calhoun, P. S., Brancu, M., & Straits-Troster, K. A. (2015). Surveying treatment preferences in U.S. Iraq–Afghanistan Veterans with PTSD symptoms: A step toward veteran-centered care. *Journal of Traumatic Stress, 28*(2), 118–126. <https://doi.org/10.1002/jts.21993>
- Cusack, K., Jonas, D. E., Forneris, C. A., Wines, C., Sonis, J., Middleton, J. C., Feltner, C., Brownley, K. A., Olmsted, K. R., Greenblatt, A., Weil, A., & Gaynes, B. N. (2016). Psychological treatments for adults with posttraumatic stress disorder: A systematic review and meta-analysis. *Clinical Psychology Review, 43*, 128–141. <https://doi.org/10.1016/j.cpr.2015.10.003>
- Doran, J. M., & DeViva, J. (2018). A naturalistic evaluation of evidence-based treatment for veterans with PTSD. *Traumatology, 24*(3), 157–167. <https://doi.org/10.1037/trm0000140>
- Drebing, C. E., Reilly, E., Henze, K. T., Kelly, M., Russo, A., Smolinsky, J., Gorman, J., & Penk, W. E. (2018). Using peer support groups to enhance community integration of veterans in transition. *Psychological Services, 15*(2), 135–145. <https://doi.org/10.1037/ser0000178>
- Edwards-Stewart, A., Smolenski, D. J., Bush, N. E., Cyr, B.-A., Beech, E. H., Skopp, N. A., & Belsher, B. E. (2021). Posttraumatic stress disorder treatment dropout among military and veteran populations: A systematic review and meta-analysis. *Journal of Traumatic Stress, 34*(4), 808–818. <https://doi.org/10.1002/jts.22653>
- Elwyn, G., Frosch, D., Thomson, R., Joseph-Williams, N., Lloyd, A., Kinnersley, P., Cording, E., Tomson, D., Dodd, C., Rollnick, S., Edwards, A., & Barry, M. (2012). Shared decision making: A model for clinical practice. *Journal of General Internal Medicine, 27*(10), 1361–1367. <https://doi.org/10.1007/s11606-012-2077-6>
- Feyman, Y., Asfaw, D. A., & Griffith, K. N. (2022). Geographic variation in appointment wait times for U.S. military veterans. *JAMA Network Open, 5*(8), Article e2228783. <https://doi.org/10.1001/jamanetworkopen.2022.28783>
- Foa, E., Hembree, E., & Dancu, C. (2002). *Prolonged exposure (PE) manual: Revised version* [Unpublished manuscript].
- Galovski, T. E., Blain, L. M., Mott, J. M., Elwood, L., & Houle, T. (2012). Manualized therapy for PTSD: Flexing the structure of cognitive processing therapy. *Journal of Consulting and Clinical Psychology, 80*(6), 968–981. <https://doi.org/10.1037/a0030600>
- Galovski, T. E., Street, A. E., McCaughey, V. K., Archibald, E. A., Wachen, J. S., & Chan, A. C. (2022). WoVeN, the women veterans network: An innovative peer support program for women veterans. *Journal of General Internal Medicine, 37*(Suppl. 3), 842–847. <https://doi.org/10.1007/s11606-022-07579-1>
- Guideline Development Panel for the Treatment of PTSD in Adults, American Psychological Association. (2019). Summary of the clinical practice guideline for the treatment of posttraumatic stress disorder (PTSD) in adults. *American Psychologist, 74*(5), 596–607. <https://doi.org/10.1037/amp0000473>
- Hamblen, J. L., Bernardy, N. C., Sherrieb, K., Norris, F. H., Cook, J. M., Louis, C. A., & Schnurr, P. P. (2015). VA PTSD clinic director perspectives: How perceptions of readiness influence delivery of evidence-based PTSD treatment [Research on psychological issues and interventions for military personnel, veterans, and their families, Part II]. *Professional Psychology: Research and Practice, 46*(2), 90–96. <https://doi.org/10.1037/a0038535>
- Harper, K. L., Moshier, S., Ellickson-Larew, S., Andersen, M. S., Wisco, B. E., Mahoney, C. T., Keane, T. M., & Marx, B. P. (2022). A prospective examination of health care costs associated with posttraumatic stress disorder diagnostic status and symptom severity among veterans. *Journal of Traumatic Stress, 35*(2), 671–681. <https://doi.org/10.1002/jts.22785>
- Held, P., Meade, E. A., Kovacevic, M., Smith, D. L., Pridgen, S., Coleman, J. A., & Klassen, B. J. (2022). Building strong therapeutic relationships quickly: The effect of the perceived working alliance on veterans’ intensive PTSD treatment outcomes. *Psychotherapy: Theory, Research, and Practice, 59*(3), 470–480. <https://doi.org/10.1037/pst0000447>
- Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the working alliance inventory. *Journal of Counseling Psychology, 36*(2), 223–233. <https://doi.org/10.1037/0022-0167.36.2.223>
- Hundt, N. E., Barrera, T. L., Arney, J., & Stanley, M. A. (2017). “It’s worth it in the end”: Veterans’ experiences in prolonged exposure and cognitive processing therapy. *Cognitive and Behavioral Practice, 24*(1), 50–57. <https://doi.org/10.1016/j.cbpra.2016.02.003>
- Jellestad, L., Vital, N. A., Malamud, J., Taeymans, J., & Mueller-Pfeiffer, C. (2021). Functional impairment in posttraumatic stress disorder: A systematic review and meta-analysis. *Journal of Psychiatric Research, 136*, 14–22. <https://doi.org/10.1016/j.jpsychires.2021.01.039>
- Johnson, E. M., & Possemato, K. (2019). Correlates and predictors of mental health care utilization for veterans with PTSD: A systematic review. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*(8), 851–860. <https://doi.org/10.1037/tra0000461>
- Kaniasty, K. (2012). Predicting social psychological well-being following trauma: The role of postdisaster social support. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*(1), 22–33. <https://doi.org/10.1037/a0021412>
- Karlin, B. E., Ruzek, J. I., Chard, K. M., Eftekhari, A., Monson, C. M., Hembree, E. A., Resick, P. A., & Foa, E. B. (2010). Dissemination of evidence-based psychological treatments for posttraumatic stress disorder in the Veterans Health Administration. *Journal of Traumatic Stress, 23*(6), 663–673. <https://doi.org/10.1002/jts.20588>
- Keefe, J. R., Hernandez, S., Johaneck, C., Landy, M. S. H., Sijercic, I., Shnaider, P., Wagner, A. C., Lane, J. E. M., Monson, C. M., & Stirman, S. W. (2022). Competence in delivering cognitive processing therapy and the therapeutic alliance both predict PTSD symptom outcomes. *Behavior Therapy, 53*(5), 763–775. <https://doi.org/10.1016/j.beth.2021.12.003>
- Kehle, S. M., Reddy, M. K., Ferrier-Auerbach, A. G., Erbes, C. R., Arbi, P. A., & Polusny, M. A. (2011). Psychiatric diagnoses, comorbidity, and functioning

- in National Guard troops deployed to Iraq. *Journal of Psychiatric Research*, 45(1), 126–132. <https://doi.org/10.1016/j.jpsychires.2010.05.013>
- Kehle-Forbes, S. M., Ackland, P. E., Spont, M. R., Meis, L. A., Orazem, R. J., Lyon, A., Valenstein-Mah, H. R., Schnurr, P. P., Zickmund, S. L., Foa, E. B., Chard, K. M., Alpert, E., & Polusny, M. A. (2022). Divergent experiences of U.S. veterans who did and did not complete trauma-focused therapies for PTSD: A national qualitative study of treatment dropout. *Behaviour Research and Therapy*, 154, Article 104123. <https://doi.org/10.1016/j.brat.2022.104123>
- Keller, S. M., Zoellner, L. A., & Feeny, N. C. (2010). Understanding factors associated with early therapeutic alliance in PTSD treatment: Adherence, childhood sexual abuse history, and social support. *Journal of Consulting and Clinical Psychology*, 78(6), 974–979. <https://doi.org/10.1037/a0020758>
- Kline, A. C., Cooper, A. A., Rytwinski, N. K., & Feeny, N. C. (2018). Long-term efficacy of psychotherapy for posttraumatic stress disorder: A meta-analysis of randomized controlled trials. *Clinical Psychology Review*, 59, 30–40. <https://doi.org/10.1016/j.cpr.2017.10.009>
- Kranke, D., Weiss, E. L., Gin, J., Der-Martirosian, C., Constantine Brown, J. L., Saia, R., & Dobalian, A. (2017). A “culture of compassionate bad asses”: A qualitative study of combat veterans engaging in peer-led disaster relief and utilizing cognitive restructuring to mitigate mental health stigma. *Best Practices in Mental Health: An International Journal*, 13(1), 20–33. <https://www.ingentaconnect.com/content/follmer/bpmh/2017/00000013/00000001/art00004>
- Larsen, S. E., Bellmore, A., Gobin, R. L., Holens, P., Lawrence, K. A., & Pacella-LaBarbara, M. L. (2019). An initial review of residual symptoms after empirically supported trauma-focused cognitive behavioral psychological treatment. *Journal of Anxiety Disorders*, 63, 26–35. <https://doi.org/10.1016/j.janxdis.2019.01.008>
- Loskot, T., Lagdamen, J., Mutschler, C., Thomas, F., Kannan, K., Beristianos, M., Cook, J., Finley, E., Monson, C., & Wiltsey-Stirman, S. (2022). Multilevel factors in providers’ decisions to utilize CPT in military- and veteran-serving treatment settings. *Psychological Services*. Advance online publication. <https://doi.org/10.1037/ser0000715>
- Marshall, R. P., Jorm, A. F., Grayson, D. A., & O’Toole, B. I. (1998). Posttraumatic stress disorder and other predictors of health care consumption by Vietnam veterans. *Psychiatric Services*, 49(12), 1609–1611. <https://doi.org/10.1176/ps.49.12.1609>
- Meyers, L. L., Strom, T. Q., Leskela, J., Thuras, P., Kehle-Forbes, S. M., & Curry, K. T. (2013). Service utilization following participation in cognitive processing therapy or prolonged exposure therapy for posttraumatic stress disorder. *Military Medicine*, 178(1), 95–99. <https://doi.org/10.7205/MILMED-D-12-00302>
- Mohr, D. C., Rosen, C. S., Schnurr, P. P., Orazem, R. J., Noorbaloochi, S., Clothier, B. A., Eftekhari, A., Bernardy, N. C., Chard, K. M., Crowley, J. J., Cook, J. M., Kehle-Forbes, S. M., Ruzek, J. I., & Sayer, N. A. (2018). The influence of team functioning and workload on sustainability of trauma-focused evidence-based psychotherapies. *Psychiatric Services*, 69(8), 879–886. <https://doi.org/10.1176/appi.ps.201700432>
- Nichter, B., Norman, S., Haller, M., & Pietrzak, R. H. (2019). Physical health burden of PTSD, depression, and their comorbidity in the U.S. veteran population: Morbidity, functioning, and disability. *Journal of Psychosomatic Research*, 124, Article 109744. <https://doi.org/10.1016/j.jpsychores.2019.109744>
- Osei-Bonsu, P. E., Bolton, R. E., Wiltsey Stirman, S., Eisen, S. V., Herz, L., & Pellowe, M. E. (2017). Mental health providers’ decision-making around the implementation of evidence-based treatment for PTSD. *The Journal of Behavioral Health Services & Research*, 44(2), 213–223. <https://doi.org/10.1007/s11414-015-9489-0>
- Ostacher, M. J., & Cifu, A. S. (2019). Management of posttraumatic stress disorder. *JAMA: Journal of the American Medical Association*, 321(2), 200–201. <https://doi.org/10.1001/jama.2018.19290>
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). SAGE Publications.
- Ranney, R. M., Cordova, M. J., & Maguen, S. (2022). A review of the referral process for evidence-based psychotherapies for PTSD among veterans. *Professional Psychology: Research and Practice*, 53(3), 276–285. <https://doi.org/10.1037/pro0000463>
- Resick, P. A., Monson, C. M., & Chard, K. M. (2017). *Cognitive processing therapy for PTSD: A comprehensive manual*. The Guilford Press.
- Resick, P. A., Wachen, J. S., Dondanville, K. A., LoSavio, S. T., Young-McCaughan, S., Yarvis, J. S., Pruiksmas, K. E., Blankenship, A., Jacoby, V., Peterson, A. L., Mintz, J., & the STRONG STAR Consortium. (2021). Variable-length cognitive processing therapy for posttraumatic stress disorder in active duty military: Outcomes and predictors. *Behaviour Research and Therapy*, 141, Article 103846. <https://doi.org/10.1016/j.brat.2021.103846>
- Salsman, J. M., Schalet, B. D., Merluzzi, T. V., Park, C. L., Hahn, E. A., Snyder, M. A., & Cella, D. (2019). Calibration and initial validation of a general self-efficacy item bank and short form for the NIH PROMIS®. *Quality of Life Research*, 28(9), 2513–2523. <https://doi.org/10.1007/s11136-019-02198-6>
- Saraiya, T. C., Jarnecke, A. M., Bauer, A. G., Brown, D. G., Killeen, T., & Back, S. E. (2023). Patient- and therapist-rated alliance predict improvements in posttraumatic stress disorder symptoms and substance use in integrated treatment. *Clinical Psychology & Psychotherapy*, 30(2), 410–421. <https://doi.org/10.1002/cpp.2810>
- Sayer, N. A., Rosen, C. S., Bernardy, N. C., Cook, J. M., Orazem, R. J., Chard, K. M., Mohr, D. C., Kehle-Forbes, S. M., Eftekhari, A., Crowley, J., Ruzek, J. I., Smith, B. N., & Schnurr, P. P. (2017). Context matters: Team and organizational factors associated with reach of evidence-based psychotherapies for PTSD in the Veterans Health Administration. *Administration and Policy in Mental Health and Mental Health Services Research*, 44(6), 904–918. <https://doi.org/10.1007/s10488-017-0809-y>
- Sijercic, I., Liebman, R. E., Stirman, S. W., & Monson, C. M. (2021). The effect of therapeutic alliance on dropout in cognitive processing therapy for posttraumatic stress disorder. *Journal of Traumatic Stress*, 34(4), 819–828. <https://doi.org/10.1002/jts.22676>
- Sippel, L. M., Pietrzak, R. H., Charney, D. S., Mayes, L. C., & Southwick, S. M. (2015). How does social support enhance resilience in the trauma-exposed individual? *Ecology and Society*, 20(4), Article 10. <https://doi.org/10.5751/ES-07832-200410>
- Steenkamp, M. M., Litz, B. T., Hoge, C. W., & Marmar, C. R. (2015). Psychotherapy for military-related PTSD: A review of randomized clinical trials. *JAMA: Journal of the American Medical Association*, 314(5), 489–500. <https://doi.org/10.1001/jama.2015.8370>
- Tuerk, P. W., Wangelin, B., Rauch, S. A., Dismuke, C. E., Yoder, M., Myrick, H., Eftekhari, A., & Acierno, R. (2013). Health service utilization before and after evidence-based treatment for PTSD. *Psychological Services*, 10(4), 401–409. <https://doi.org/10.1037/a0030549>
- VA/DoD Clinical Practice Guideline Working Group. (2017). *VA/DoD clinical practice guideline for the management of posttraumatic stress disorder and acute stress disorder*. VA Office of Quality and Performance.
- Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). *The PTSD checklist for DSM-5 (PCL-5)*. National Center for PTSD. <https://www.ptsd.va.gov>

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