



Published in final edited form as:

Prof Psychol Res Pr. 2014 April 1; 45(2): 136–142. doi:10.1037/a0036183.

VA Residential Provider Perceptions of Dissuading Factors to the Use of Two Evidence-Based PTSD Treatments

Joan M. Cook [associate professor in the Yale School of Medicine],

Department of Psychiatry. She has numerous publications in the traumatic stress and geriatric mental health fields, including scientific papers on the phenomenology, assessment and treatment of older adult trauma survivors. She is a member of the American Psychological Association's Guideline Development Panel for PTSD. Yale School of Medicine and National Center for PTSD, West Haven, Connecticut

Stephanie Dinnen [masters degree in gerontology],

Her research interests include trauma and posttraumatic stress disorder in older adult populations. Yale School of Medicine and National Center for PTSD, West Haven, Connecticut

Vanessa Simiola [masters degree in clinical psychology and is currently working on her doctorate],

She is affiliated with Yale University and her interests are evidence based care for posttraumatic stress disorder and dissemination and implementation research. Yale School of Medicine and National Center for PTSD, West Haven, Connecticut

Richard Thompson [PhD in clinical psychology from McGill University and is currently a research consultant], and

His major areas of interest are the effects of trauma on psychological functioning, and access to mental health care. University of Illinois at Chicago

Paula P. Schnurr [acting executive director of the national center for PTSD and had served previously as deputy executive director since 1989]

She is research professor of psychiatry at the Geisel School of Medicine at Dartmouth and editor of the *Clinician's Trauma Update-Online*. Her research focuses on the treatment of PTSD and risk and resilience factors associated with response to traumatic events. National Center for PTSD, White River Junction, Vermont and Geisel School of Medicine at Dartmouth College

Abstract

Providers ($N = 198$) from 38 Department of Veterans Affairs residential posttraumatic stress disorder treatment programs across the United States completed qualitative interviews regarding implementation of 2 evidence-based treatments: prolonged exposure and cognitive processing therapy. As part of this investigation, providers were asked how they decide which patients are appropriate for these treatments. Many indicated that they did not perceive any patient factors that dissuade their use of either evidence-based treatment. However, 3 broad categories emerged surrounding reasons that patients were perceived to be less suitable candidates for the treatments:

the presence of psychiatric comorbidities, cognitive limitations, and low levels of patient motivation. Interestingly, providers' perceived reasons for limited or nonuse of a treatment did not correspond entirely to those espoused by treatment developers. Possible solutions to address provider concerns, including educational and motivational interventions, are noted.

Keywords

evidence-based treatment; posttraumatic stress disorder; provider perspectives

Beginning in 2007, the Department of Veterans Affairs (VA) instituted national initiatives to provide training and consultation in two evidence-based treatments (EBTs) for posttraumatic stress disorder (PTSD): prolonged exposure (PE; Foa, Hembree, & Rothbaum, 2007) and cognitive processing therapy (CPT; Karlin et al., 2010; Resick & Schnicke, 1993). Both PE and CPT are considered first-line psychotherapies for PTSD (e.g., Foa, Keane, Friedman, & Cohen, 2009; U.S. Department of Veterans Affairs & U.S. Department of Defense, 2010), and have been submitted to randomized controlled trials with civilian (e.g., Foa et al., 2005; Resick, Galovski, et al., 2008) and veteran samples (for review, see Steenkamp & Litz, 2013).

Despite research supporting their efficacy, these treatments remain underutilized in both the civilian and veteran service sectors (e.g., Becker, Zayfert, & Anderson, 2004; Shiner et al., 2013). Indeed, this is true in the face of the VA mandate that all veterans receiving outpatient or residential care are to have access to PE or CPT (U.S. Department of Veterans Affairs, 2010). For example, in a national investigation of VA PTSD residential programs, use of PE and CPT was not universal, with some programs not adopting these treatments at all (Cook et al., 2013). Furthermore, although several VA residential programs were delivering a full protocol of CPT to all patients, no program offered PE to all patients. Relatedly, only 6.3% of outpatients admitted to New England area VA PTSD clinics received at least one session of PE and/or CPT and, of those, the mean number of EBT sessions received was only six (Shiner et al., 2013). Thus, it appears that a limited number of veterans with PTSD currently receive PE or CPT, and when they do receive it, it may not be at a sufficient therapeutic dose to constitute a full course.

Both PE and CPT are considered trauma-focused treatments, specifically addressing traumatic memories and effects. In brief, PE is an eight- to 15-session manualized individual therapy based on emotional processing theory (Foa & Kozak, 1986) with four main components: education about reactions to trauma and PTSD, breathing training, exposure to trauma-related situations that are objectively safe but avoided because of trauma-related distress (in vivo exposure), and exposure to trauma memories through repeated recounting out loud by clients of the details of their most disturbing event (imaginal exposure). CPT is a 12-session manualized therapy adapted from cognitive techniques (Beck & Emery, 1985). CPT can be delivered in individual or group form and focuses on feelings, beliefs, and thoughts that directly relate to the trauma.

There are numerous potential explanations for difficulties bringing EBTs into community practice (e.g., Greenhalgh, Glenn, Bate, Macfarlane, & Kyriakidou, 2005). Understanding

these struggles is critical to successful implementation efforts. One such potential barrier is provider perceptions about the treatments, including views on whether EBTs are appropriate for the provider's patient population. Awareness of provider perceptions of patient appropriateness for the use of EBTs is relevant to both treatment development and the facilitation of treatment dissemination, implementation, and sustainability within organizations (Steenkamp & Litz, 2013). Although there are various limitations associated with the use of provider self-report, these limitations are balanced by what is gained from understanding provider decision making in regarding the use of EBTs.

Provider perceptions regarding factors that dissuade treatment use may not be consistent with what treatment developers report or what the research to date has shown. There are three contraindications to the use of PE as set forth by the treatment developers (Foa et al., 2007): active psychosis, serious risk of suicidal or homicidal behavior, and recent (past 3 months) self-injurious behavior. Substance abuse is not considered a contraindication, but is viewed as needing to be treated concurrently and to be stabilized (Foa et al., 2007). Contraindications to CPT as stated by the treatment developers are imminent danger to one's self or others, unstabilized alcohol or chemical abuse, severe dissociation, and severe panic disorder (Resick, Monson, & Chard, 2008).

The VA offers a range of PTSD services, including specialized outpatient programs, community-based clinics, telemental health, and intensive residential programming. Residential PTSD treatment has been a VA cornerstone for more than 40 years (Desai, Spencer, Gray, & Pilver, 2010; Rosenheck, Fontana, & Errera, 1997). It represents a small but significant fraction of PTSD care, generally serving patients with more severe symptoms and longstanding problems and less community support than typical out-patients. These programs typically provide formal mental health services within a therapeutic treatment community as well as social, recreational, vocational, and family counseling.

Residential settings are ideal contexts to study implementation as the providers have the opportunity to deliver treatment over an extended period of time and to closely monitor any potential symptom exacerbation. In addition, residential programs also provide a secure setting where the veterans are not dealing with external stressors such as marital relationships or job stress, which might interfere with engagement and participation in a trauma-focused EBT. Thus, residential settings lend themselves to a more stable environment that can provide 24-hr support to veterans.

The purpose of this article is to present VA residential PTSD treatment provider perceptions of dissuading factors to the use of PE and CPT. Such information represents a feedback opportunity by which to facilitate the implementation process and address a barrier to adoption. Knowing why providers do not adopt a treatment, particularly one with a robust evidence base, can inform treatment developers and disseminators regarding issues that require strengthening in training and continued support. In addition, valuable knowledge may be found regarding the limitations of these EBTs in real-world clinical practice and thus can inform areas of future investigation. In other words, provider-identified reasons for limited or nonuse represent not only an opportunity to correct potential misunderstandings but to consider possible limitations or areas of presently unmet clinical need.

Method

A Web-based survey and semistructured interview regarding the use of PE and CPT were conducted with VA residential treatment staff in 38 programs across the United States from 2008 to 2010. Complete descriptions of the development process as well as copies of the survey and semistructured interview guide are reported elsewhere (Cook et al., 2013). In brief, we conducted a systematic review of the literature to operationalize constructs presented in the evidence-based framework of implementation of health care interventions by Greenhalgh et al. (2005). The model articulates six broad constructs influencing implementation: (1) perceived characteristics of the given innovation, (2) individual characteristics of potential adopters, (3) communication and influence, (4) system antecedents and readiness, (5) outer organizational context, and (6) implementation process. Using an iterative process, we reviewed existing items from published measures for potential inclusion; where no one measure was deemed appropriate, other items were developed to measure the constructs through consensus. Data reported here come from the semistructured interview only.

Participants were recruited from VA residential PTSD treatment programs reporting patient outcome data to the VA Northeast Program Evaluation Center. Residential PTSD programs not reporting patient outcome data ($n = 7$) to the Northeast Program Evaluation Center were excluded. In total, 243 VA residential PTSD treatment directors, providers, and staff were recruited for participation. Of these, 191 (78.6%) completed both the quantitative survey and qualitative interview, 13 (5.3%) completed the survey only, seven (2.8%) completed the interview only, and 32 (13.2%) did not participate. Among the 32 nonparticipants, 15 had retired, left their position, or were on medical leave; 13 did not respond to any recruitment attempts; and four refused participation.

Of the 198 providers who completed the qualitative interview, most were psychologists ($n = 110$, 55.6%), social workers ($n = 66$, 33.3%), and nurses ($n = 11$, 5.6%), followed by psychiatrists ($n = 5$, 2.5%) and other professionals ($n = 6$, 3.0%). Although study participation was not limited to those providers eligible to receive the EBT trainings through the VA (based on professional discipline and scope of practice), almost all interviewed (93.9%) met this criterion. Providers ineligible to receive the training because of profession or licensure were included only if they were deemed by study staff to play a central role in the decision to use a treatment or not. Of the 186 eligible providers, 150 (80.6%) had received training in CPT and 115 (61.8%) had training in PE. In addition, some providers received formal training in one or the other treatment prior to the VA dissemination effort.

All 198 providers gave written consent to participate in an audio-recorded interview. All interviews were conducted by two study authors (JC, SD). Interviews ranged from 30 to 60 min, with an average length of 45 min. Interviewers followed a semistructured interview guide (Cook et al., 2012); however, to preserve the flow of conversation, we allowed deviations (e.g., modifying the order of questions), and providers were not required to answer questions perceived to be beyond the scope of their knowledge or role within their treatment setting. Data were analyzed from a grounded theory standpoint using open, axial, and selective coding. Written transcripts from the 198 provider interviews were reviewed by

two master's-level coders (SD and VS) to identify all possible answers to the questions "How do you determine when a patient is appropriate and/or ready for [the treatment]?" and "How effective is [the treatment] when presenting problems are more acute, severe, or complicated?" Because interviewees sometimes provided answers to questions out of turn or elaborated on an earlier response later in the interview, the entirety of the transcript was reviewed and coded for possible relevant responses.

Each transcript was then independently reread and coded for reasons that providers perceived a patient to be inappropriate for the treatments, once for CPT and once for PE by each of the two raters. Raters then compared their respective lists of possible dissuading patient factors to treatment use and duplicate or overlapping concepts were reduced and condensed. Areas of discord were discussed with the study principal investigator (JC) until consensus was reached. Individual interview data were aggregated at the site level and entered into SPSS. The kappa coefficient for agreement between the two raters was .98. Interview text supporting those categories endorsed was collected and reviewed by all three study staff. Numerous additional strategies were used to preserve reliability and validity of data including standardization of the interview, audiotaping, and professional transcription.

Results

Three broad categories of dissuading patient factors to the use of PE or CPT were identified: the presence of psychiatric comorbidities, the presence of cognitive limitations, and the level of patient motivation.

Psychiatric Comorbidities

The presence of certain comorbidities was identified as a dissuading patient factor to the use of PE and CPT. These included substance dependence, dissociation, and paranoia, as well as personality disorders. Two veins of thought were identified; Comorbidities require stabilization prior to engagement in trauma-processing treatment, or conversely, certain comorbidities inhibit a veterans' ability to benefit from PE or CPT. Those providers who perceived comorbidities requiring stabilization prior to trauma treatment noted that the competing needs of other psychiatric comorbidities took precedence or overtook the ability of the provider to deliver, or the patient to engage in, these EBTs:

Whether it may be substance-related issues or severe personality pathology or bipolar, they probably need a degree of stabilization in those areas before they can really focus in and do the type of trauma-focused work that we would need them to do in a CPT or PE.

For other providers, comorbidities were seen as inhibiting a veterans' ability to benefit such that the presence of personality issues added complexity to the clinical presentation and thus treatment. As such, the effectiveness of PE or CPT in addressing these issues was seen as compromised:

If they have not worked through some of the avoidance like the anger, they need help with anger management, or they have significant substance abuse issues and I just don't think that PE would be appropriate for them right off the bat. Maybe PE

and a combination with other things but PE alone, when you're dealing with more than one psychiatric condition, you have to treat all of them.

Active substance abuse was one comorbidity for which providers were somewhat divided on the issue of appropriateness. Whereas some felt it was contraindicated to treat a veteran who had an ongoing substance use disorder and who would not agree to a set period of sobriety both prior to and throughout an EBT, others felt that trauma-focused therapies could be concurrent with substance abuse treatment. For example, one provider explained, "If you get them to a point where they're feeling highly anxious and then they cope with that by going to get high or going to get drunk when they leave the session, it's quite counterproductive." Another provider felt substance abuse could be treated simultaneously: "If they have a substance abuse disorder, as long as they're getting concurrent treatment and they're actively working toward recovery, I don't have a problem doing CPT or PE."

Cognitive Limitations

Cognitive limitations were viewed almost universally as a potentially significant dissuading factor for the use of CPT. This broad category included reduced cognitive ability due to traumatic brain injury (TBI), organic cognitive limitations such as low intelligence or diseases such as dementia, the inability to image, cognitive rigidity, and highly intellectualizing. It was also noted that some veterans have difficulties with written assignments, have low levels of literacy, or report being generally uncomfortable with written work.

Multiple providers suggested that prior to offering CPT to a veteran, they assessed the patient's reading and writing abilities. In some instances, providers felt that veterans were unable to comprehend the protocol language, suggesting that CPT exceeds the verbal, literacy, and abstract thinking capabilities of some veterans.

Cognitive issues associated with aging were also perceived as dissuading factors for CPT and PE. One provider explained, "We have a lot of elderly fellas who have come in here too who have real deficits from either years and years of drinking or just general dementia sometimes too and they're not into it."

Select providers felt that TBI, depending on the severity, was a dissuading factor to the use of CPT given the high degree of abstract thinking and the number of written assignments required. As one provider suggested, "The retention is poor and we try to screen those folks [with TBI] out... We're not doing CPT with those guys."

Providers also reported that veterans who were extremely rigid in their thinking struggled to participate in CPT. Other providers found that veterans who were highly intelligent or intellectualizing struggled the most in CPT:

I just finished a group and one of the guys, Operation Iraqi Freedom veteran, he is pretty bright, but sometimes that goes against working for you because he keeps intellectualizing things so much that he is missing the whole point.

Specifically, one provider noted that among highly intelligent and rational thinkers, trauma narratives were often highly scripted or edited, allowing the veteran to continue to avoid:

“People who intellectualize ... they are doing the talk and doing the identification but it can give them an avenue for avoiding doing the work.”

Level of Motivation

Patient level of motivation included various factors that might influence treatment engagement and retention including reluctance to engage in the treatment, concern about managing negative side effects, nonadherence to homework, past treatment nonattendance or dropout, and having an active disability-related compensation-seeking claim.

Motivation was sometimes conceptualized as “readiness” to engage in a trauma-focused treatment. Some providers noted that some veterans were not willing to engage in one of these EBTs: “As far as getting clients, I think there’s probably no bad client for CPT and PE. It’s just getting clients to be willing to do those treatments that’s the challenge. That’s my experience.” These veterans were viewed as averse to talking or writing through the trauma narrative. One provider noted that they only offer an EBT to patients who are highly motivated, while acknowledging that as few as one in four patients is highly motivated to participate in PE.

Veterans’ level of motivation was considered an especially important factor in their appropriateness for PE or CPT because of organizational constraints resulting from the length of program stay, typically 4 to 6 weeks but can range from as few as 14 days to more than 90 days. When a veteran was less motivated or slow to engage in the EBT, it was sometimes viewed that too much time would be lost to issues surrounding motivation to make undertaking PE or CPT a feasible and successful endeavor. As one provider said and others echoed, “If I encounter a lot of resistance to that [trauma processing] because we are a time-limited program, I will opt to use a different method.”

Level of motivation was also framed as both a potential hindrance to willingness to initially engage in PE or CPT and to sustained engagement. When veterans did not complete the treatment assignments, they were less likely to see symptom improvement and, therefore, possibly even further unmotivated to adhere to treatment requirements. One provider explained, “It’s kind of like you get out what you put in and so we have people who will put in kind of the minimum amount of effort and they’re not really buying into it and they see minimal improvement.”

One factor identified by some providers as influencing motivation was if a veteran had an ongoing compensation-seeking claim for PTSD. Called the “stick in the spokes,” several providers suggested that compensation-seeking status could lead a veteran to be reluctant to engage fully in treatment for fear that any treatment gains made would interfere with the disability eligibility. Others noted screening for veterans who had an ongoing claim and suggested waiting until the compensation process had concluded before recommending PE or CPT.

Discussion

This is the first study to report on provider perceptions regarding patient appropriateness in use of PE and CPT in a national sample of VA residential treatment programs. Three broad categories surrounding perceived dissuading patient factors were noted: presence of psychiatric comorbidities, cognitive limitations, and level of motivation or “readiness” to engage in trauma-focused treatment. The reasons for nonuse most frequently mentioned by providers in this study differed from those endorsed by treatment developers, with the exception of paranoia and unstabilized substance abuse.

The presence of comorbid psychiatric disorders, namely substance dependence, dissociation, paranoia, and personality disorders, was viewed by some providers as a dissuading patient factor to the use of both PE and CPT. This is congruent with a survey by Becker et al. (2004) of community psychologists’ opinions on contraindications to PE. In addition, randomized controlled psychotherapy trials for PTSD may exclude patients with select psychiatric comorbidities from participation such as suicidal ideation, bipolar disorder, and active psychosis (e.g., Foa et al., 2005; Resick, Galovski, et al., 2008). For example, although the prevalence of psychotic disorders in persons with PTSD has been placed at upward of 30%, psychosis has been an exclusion criterion from most studies of PE, with exception of one pilot study with five patients (Frueh et al., 2009).

However, other research has demonstrated positive results in patients with psychiatric concomitants. Recent uncontrolled demonstrations using PE in outpatient veterans, many of whom had psychiatric comorbidities, indicated significant reductions in PTSD (e.g., Rauch et al., 2009; Tuerk et al., 2011). However these were relatively small samples and thus replication in a wider patient population is warranted. In addition, Walter, Bolte, Owens, and Chard (2012) compared outcomes for individual and group-based CPT in a VA residential treatment program among PTSD patients both with and without a diagnosed personality disorder. There were no statistically significant differences in treatment gains on PTSD between the two groups; in fact, those with personality disorders experienced greater improvement in pre- to posttreatment depression. In a review of studies assessing the predictive validity of comorbidities in relation to PE treatment outcome, van Minnen, Harned, Zoellner, and Mills (2012) found certain concomitants not significantly related to treatment outcomes and advocate for the use of PE in PTSD patients with comorbid dissociation, psychosis, suicidal behavior, nonsuicidal self-injury, substance use disorders, and major depression, stipulating that in the case of severe comorbidity treatment for other disorders should be concurrent and well monitored.

Providers in this study were divided on their opinion of whether current substance dependence compromised a veteran’s ability to successfully engage in PE or CPT. Some believed that PE should not be undertaken unless a veteran was abstinent, and others felt concurrent treatment was safe and effective. Among providers who felt substance dependence was a dissuading factor, there appeared to be concern that a veteran with comorbid substance dependence was at increased risk for decompensation or symptoms worsening. However, in one treatment study of 76 women with chronic PTSD, imaginal exposure did not cause symptom exacerbation (Foa, Zoellner, Feeney, Hembree, & Alvarez-

Conrad, 2002). Furthermore, no significant differences were found in dropout rates among exposure therapy and other trials of EBTs, suggesting that PE may not be less tolerable than other cognitive-behavioral approaches (Hembree et al., 2003).

A systematic review of psychological treatments for concurrent PTSD and substance use disorders (van Dam, Vedel, Ehring, & Emmelkamp, 2012) indicated a lack of empirical evidence regarding the appropriateness of concurrent trauma-focused and substance abuse treatment. In a recent randomized controlled trial, combined PTSD and substance abuse treatment was not more effective than either treatment alone at reducing PTSD or alcohol dependence symptoms (Foa et al., 2013). In addition, PE did not exacerbate alcohol dependence symptoms. Only one case report exists examining a modified version of CPT in a veteran with comorbid heavy alcohol dependence (McCarthy & Petrakis, 2011); there was symptom reduction of both PTSD and alcohol dependence, with no adverse effects reported.

Providers were equivocal in their view of the appropriateness of CPT for veterans with cognitive limitations. However, the developers of the CPT manual note that in clinical trials CPT has been successfully completed (albeit using modified worksheets) with individuals with an IQ as low as 75 (Resick, Monson, et al., 2008). Furthermore, VA/Department of Defense clinical guidelines endorse the use of CPT and PE with polytrauma PTSD patients, including mild to moderate TBI (U.S. Department of Veterans Affairs and U. S. Department of Defense, 2010). Indeed, one small study of veterans with PTSD and TBI using modified CPT (without the trauma narrative) demonstrated large effect sizes in pre- to postmeasures on PTSD and depression (Chard, Schumm, McIlvain, Bailey, & Parkinson, 2011). In addition, modifying CPT for illiterate patients with limited education is also feasible and effective (Bass et al., 2013).

Providers who viewed CPT as incompatible with cognitive impairment sometimes suggested PE as an appropriate alternative. In a secondary data analysis from a recent randomized controlled trial comparing PE and present-centered therapy for veterans with PTSD, Sripada et al. (2013) found no significant differences in symptom reduction following PE between veterans with mild TBI versus with no TBI, suggesting that veterans with mild TBI may equally benefit from unmodified PE as those without TBI. Trauma processing in veterans with comorbid TBI may be further complicated by competing care needs such as determining the etiology of patients' presenting problems, coordinating services and scheduling conflicts, and knowing whether or how to alter the treatments (Sayer et al., 2009).

Readiness for trauma processing has been raised as an issue by clinicians for nonuse of EBTs for PTSD (e.g., Becker et al., 2004; Litz, Blake, Gerardi, & Keane, 1990; Murphy, Thompson, Murray, Rainey, & Uddo, 2009). Neither the PE or CPT manual includes a coping skills or motivational enhancement module, and providers in this study reported low levels of patient motivation to engage in treatment as a dissuading factor to their use. Perhaps some of the provider perceived reasons for limited or nonuse (e.g., past treatment nonadherence, premature dropout, nonattendance) could be improved by including a course of motivational enhancement or coping skill building prior to engaging in these EBTs (Cloitre et al., 2010).

It may be surprising that in a residential program, where patients are referred by treatment providers or self-referred, that providers would be worried about level of motivation to engage in a trauma-focused EBT. VA residential PTSD patients tend to represent a more chronic, complex, and treatment-resistant population. These patients often have physical and psychological comorbidities and may have reduced resources (e.g., financial or housing instability, unemployment, interpersonal difficulties). Particularly in older populations, such as Vietnam veterans, these issues may have persisted unresolved for upward of 40 years. Engagement in an intensive trauma-focused treatment, which requires repeated exposure to traumatic memories, is difficult and potentially frightening. Avoidance symptoms are hallmarks of PTSD and, indeed, avoidance of trauma material is believed to maintain PTSD symptoms. Given the increasingly time-limited nature of residential programs (as noted, some as brief as 14 days), willingness to engage may be further hindered by significant avoidance symptoms and the brevity of treatment. Lastly, as one provider made clear, not all patients want to engage in trauma-focused therapies and may enter residential care seeking other types of treatment (e.g., supportive counseling, skills-based training, acceptance, and mindfulness) or may prefer another mode of EBT.

Veterans treated in residential programming likely present with chronic and complex psychiatric histories and with needs unmet by traditional outpatient care. Dissuading factors to trauma processing raised here by residential treatment providers may differ from those in clinical trials. Indeed, not all patients who participate in PE or CPT make clinically significant gains, some continue to experience PTSD symptoms posttreatment (Alvarez et al., 2011; Hembree, Cahill, & Foa, 2004), and others drop out or refuse to participate (Schottenbauer, Glass, Arnkoff, Tendick, & Gray, 2008). Conversely, some indicate that modifying PE and adding elements such as distress tolerance and emotion regulation management will produce comparable results to standard PE (Foa et al., 2013). Jaycox and Foa (1996) recommend modifications in exposure treatment with individuals who are experiencing extreme emotional states (e.g., anger, anxiety, numbing), such as titrating exposure, introducing cognitive techniques to assist in a sense of mastery, and altering the order of modules to first address the impeding emotional symptoms, rather than abandoning PE all together.

There are several limitations to this investigation. First, the open-ended question on perceived appropriateness was not universally answered by all providers. Some answered the question by describing a patient they felt was appropriate for the treatment; others did not answer the question at all. Second, data in this article were derived from an open-ended question about the type of patient most appropriate or inappropriate for PE and CPT. In a future investigation, it would be beneficial to more formally assess appropriateness and contraindications, possibly by using a quantitative checklist asking providers to rate the significance of each perceived contraindication and who frequently they encounter the issue in their practice. Likewise, this investigation did not assess for the influence of discipline (e.g., psychologist vs. social worker) to see whether different patterns for perceived appropriateness emerged among different disciplines. In addition, this investigation included only residential VA PTSD treatment programs, which represents a small and distinct faction of care, treating the most chronic and severe patients with complicated symptom presentations and life circumstances. Replication of these findings in other VA and non-VA

settings is needed before generalizations can be made. Of note, an important limitation of qualitative investigations is the potential for the investigators' own influence in the construal of construct meaning. In an attempt to remediate against this, three individuals with different levels of familiarity with the VA system and the two EBTs in question independently reviewed each transcript and open discussion and disagreement were encouraged to determine the most accurate representation of the data.

Provider perceptions of treatment are not often examined in dissemination and implementation studies. However, surveying the opinions of those front-line providers delivering an EBT can be used both to improve training and consultation and to understand where treatments need to be modified. Indeed, dialogue between providers and researchers needs to be egalitarian and bidirectional. Participatory approaches to dissemination that engage multiple stakeholders (i.e., patients, front-line providers, administrators) and respect varying perspectives are likely to be more successful than top-down approaches (Glasgow, 2013).

The results presented here have implications for treatment developers and organizations undergoing dissemination efforts of PE and CPT, as well as other treatments. Furthermore, information on provider perceptions of patient appropriateness can help to identify unmet treatment needs, for example, the need for EBTs augmented by motivational enhancement and skill building in an effort to increase treatment engagement, retention, and outcome. It should be noted that some of the research supporting the use of EBTs in patients with psychiatric comorbidities and cognitive limitations (e.g., Bass et al., 2013; Spirada et al., 2013; Walter et al., 2012) would not have been accessible to providers in this study who were interviewed between 2008 and 2010.

There exists an opportunity to address potentially complicating factors to the use of PE and CPT during training and consultation efforts. Providers may benefit from addressing some of the perceived dissuading factors to use identified here, such as illiteracy and motivation enhancement, during training and supervision. In some instances, concerns about patient appropriateness may be due to a lack of information or access to the most current research (e.g., that CPT has been previously modified and successfully applied in low-intelligence populations) and, therefore, addressing potential complicating issues in training and supervision may help to dispel misinformation. One direction for future research may be to develop a decision-making tree for providers considering use of CPT and PE, similar to the one created by Litz et al. (1990). Such an approach has the potential to assist providers in navigating the decisions around treatment applicability and bringing use of such treatments more in line with the intentions of treatment developers.

Acknowledgments

THIS PROJECT WAS SUPPORTED by Award RC1-MH088454 from the National Institute of Mental Health. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Mental Health, the National Institutes of Health, or the U.S. Department of Veterans Affairs.

References

- Alvarez J, McLean C, Harris AHS, Rosen CS, Ruzek JI, Kimerling R. The comparative effectiveness of cognitive processing therapy for male veterans treated in a VHA posttraumatic stress disorder residential rehabilitation program. *Journal of Consulting and Clinical Psychology*. 2011; 79:590–599. doi:10.1037/a0024466. [PubMed: 21744946]
- Bass JK, Annan J, Murray SM, Kaysen D, Griffiths S, Cetinoglu T, Bolton PA. Controlled trial of psychotherapy for Congolese survivors of sexual violence. *New England Journal of Medicine*. 2013; 368:2182–2191. doi:10.1056/NEJMoa1211853. [PubMed: 23738545]
- Beck, AT.; Emery, G. *Anxiety disorders and phobias: A cognitive perspective*. Basic Books; New York, NY: 1985.
- Becker CB, Zayfert C, Anderson E. A survey of psychologists' attitudes towards and utilization of exposure therapy for PTSD. *Behaviour Research and Therapy*. 2004; 42:277–292. doi:10.1016/S0005-7967(03)00138-4. [PubMed: 14975770]
- Chard KM, Schumm JA, McIlvain SM, Bailey GW, Parkinson RB. Exploring the efficacy of a residential treatment program incorporating cognitive processing therapy for veterans with PTSD and traumatic brain injury. *Journal of Traumatic Stress*. 2011; 24:347–351. doi: 10.1002/jts.20644. [PubMed: 21626573]
- Cloitre M, Stovall-McClough KC, Noonan K, Zorbas P, Cherry S, Jackson CL, Petkova E. Treatment for PTSD related to childhood abuse: A randomized controlled trial. *The American Journal of Psychiatry*. 2010; 167:915–924. doi:10.1176/appi.ajp.2010.09081247. [PubMed: 20595411]
- Cook JM, O'Donnell CO, Dinnen S, Bernardy N, Rosenheck R, Desai R. A formative evaluation of two evidence-based psychotherapies for PTSD in VA residential treatment programs. *Journal of Traumatic Stress*. 2013; 26:56–63. doi:10.1002/jts.21769. [PubMed: 23417875]
- Cook JM, O'Donnell C, Dinnen S, Coyne JC, Ruzek JL, Schnurr PP. Measurement of a model of implementation for health care: Advancement towards a testable theory. *Implementation Science*. 2012; 3:59–64. doi:10.1186/1748-5908-7-59. [PubMed: 22759451]
- Desai, R.; Spencer, H.; Gray, S.; Pilver, C. *The long journey home XVIII: Treatment of posttraumatic stress disorder in the Department of Veterans Affairs*. Northeast Program Evaluation Center; West Haven, CT: 2010.
- Foa EB, Hembree EA, Cahill SP, Rauch SAM, Riggs DS, Feeny NC, Yadin E. Randomized trial of prolonged exposure for posttraumatic stress disorder with and without cognitive restructuring: Outcome at academic and community clinics. *Journal of Consulting and Clinical Psychology*. 2005; 73:953–964. doi:10.1037/0022-006X.73.5.953. [PubMed: 16287395]
- Foa, EB.; Hembree, EA.; Rothbaum, BO. *Prolonged exposure therapy for PTSD: Emotional processing of traumatic experiences therapist guide*. Oxford University Press; New York, NY: 2007.
- Foa, EB.; Keane, TM.; Friedman, MJ.; Cohen, JA., editors. *Effective treatments for PTSD*. 2nd ed. Guilford Press; New York, NY: 2009.
- Foa EB, Kozak MJ. Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*. 1986; 99:20–35. doi: 10.1037/0033-2909.99.1.20. [PubMed: 2871574]
- Foa EB, Yusko DA, McLean CP, Suvak MK, Bux DA, Oslin D, Volpicelli J. Concurrent naltrexone and prolonged exposure therapy for patients with comorbid alcohol dependence and PTSD: A randomized clinical trial. *JAMA*. 2013; 310:488–495. doi:10.1001/jama.2013.8268. [PubMed: 23925619]
- Foa EB, Zoellner LA, Feeney NC, Hembree EA, Alvarez-Conrad J. Does imaginal exposure exacerbate PTSD symptoms? *Journal of Consulting and Clinical Psychology*. 2002; 70:1022–1028. doi: 10.1037/0022-006X.70.4.1022. [PubMed: 12182265]
- Frueh BC, Grubaugh AL, Cusack KJ, Kimble MO, Elhai JD, Knapp RG. Exposure-based cognitive behavioral treatment of PTSD in adults with schizophrenia or schizoaffective disorder: A pilot study. *Journal of Anxiety Disorders*. 2009; 23:665–675. doi:10.1016/j.janxdis.2009.02.005. [PubMed: 19342194]

- Glasgow R. What does it mean to be pragmatic? Pragmatic methods, measures and models to facilitate research translation. *Health Education and Behavior*. 2013; 40:257–265. doi: 10.1177/1090198113486805. [PubMed: 23709579]
- Greenhalgh, T.; Glenn, R.; Bate, P.; Macfarlane, F.; Kyriakidou, O., editors. *Diffusion of innovations in health service organizations: A systematic literature review*. Blackwell Publishing; Oxford, UK: 2005. doi: 10.1002/9780470987407
- Hembree EA, Cahill SP, Foa EB. Impact of personality disorders on treatment outcome for female assault survivors with chronic posttraumatic stress disorder. *Journal of Personality Disorders*. 2004; 18:117–127. doi:10.1521/pedi.18.1.117.32767. [PubMed: 15061348]
- Hembree EA, Foa EB, Dorfan NM, Street GP, Kowalksi J, Tu X. Do patients drop out prematurely from exposure therapy for PTSD? *Journal of Traumatic Stress*. 2003; 16:555–562. doi:10.1023/B:JOTS.0000004078.93012.7d. [PubMed: 14690352]
- Jaycox LH, Foa EB. Obstacles in implementing exposure therapy for PTSD: Case discussions and practical solutions. *Clinical Psychology and Psychotherapy: An International Journal of Theory and Practice*. 1996; 3:176–184. doi:10.1002/(SICI)1099-0879(199609)3:3<176::AID-CPP100>3.0.CO;2-1.
- Karlin BE, Ruzek JI, Chard KM, Eftekhari A, Monson CM, Hembree EA, Foa EB. Dissemination of evidence-based psychological treatment for posttraumatic stress disorder in the Veterans Health Administration. *Journal of Traumatic Stress*. 2010; 23:663–673. doi: 10.1002/jts.20588. [PubMed: 21171126]
- Litz B, Blake DD, Gerardi RG, Keane TM. Decision making guidelines for the use of direct therapeutic exposure in the treatment of post-traumatic stress disorder. *The Behavior Therapist*. 1990; 13:91–93.
- McCarthy E, Petrakis I. Case report on the use of cognitive processing therapy–cognitive enhanced to address heavy alcohol use. *Journal of Traumatic Stress*. 2011; 24:474–478. doi:10.1002/jts.20660. [PubMed: 21780191]
- Murphy RT, Thompson KE, Murray M, Rainey Q, Uddo MM. Effect of a motivation enhancement intervention on veterans’ engagement in PTSD treatment. *Psychological Services*. 2009; 6:264–278. doi:10.1037/a0017577.
- Rauch SAM, Defever E, Favorite T, Duroe A, Garrity C, Mattis B, Liberzon I. Prolonged exposure for PTSD in a Veterans Health Administration PTSD clinic. *Journal of Traumatic Stress*. 2009; 22:60–64. doi:10.1002/jts.20380. [PubMed: 19145643]
- Resick PA, Galovski TE, Uhlmansiek MOB, Scher CD, Clum GA, Young-Xu Y. A randomized clinical trial to dismantle components of cognitive processing therapy for posttraumatic stress disorder in female victims of interpersonal violence. *Journal of Consulting and Clinical Psychology*. 2008; 76:243–258. doi:10.1037/0022-006X.76.2.243. [PubMed: 18377121]
- Resick, PA.; Monson, CM.; Chard, KM. *Cognitive processing therapy: Veteran/military version*. U.S. Department of Veterans Affairs; Washington, DC: 2008.
- Resick, PA.; Schnicke, M. *Cognitive processing therapy for rape victims: A treatment manual*. Sage; Newbury Park, CA: 1993.
- Rosenheck RA, Fontana AF, Errera P. Inpatient treatment of war-related PTSD: A twenty-year perspective. *Journal of Traumatic Stress*. 1997; 10:407–413. doi:10.1002/jts.2490100306. [PubMed: 9246648]
- Sayer NA, Rettman NA, Carlson KF, Bernardy N, Sigford BJ, Hamblen JL, Friedman MJ. Veterans with history of mild traumatic brain injury and posttraumatic stress disorder: Challenges from provider perspective. *Journal of Rehabilitation Research and Development*. 2009; 46:703–716. doi:10.1682/JRRD.2009.01.0008. [PubMed: 20104400]
- Schottenbauer MA, Glass CR, Arnkoff DB, Tendick V, Gray SH. Nonresponse and dropout rates in outcome studies on PTSD: Review and methodological considerations. *Psychiatry: Interpersonal and Biological Processes*. 2008; 71:134–168. doi:10.1521/psyc.2008.71.2.134.
- Shiner B, D’Avolio LW, Nguyen TM, Zayed MH, Young-Xu Y, Desai RA, Watts BV. Measuring use of evidence-based psychotherapy for posttraumatic stress disorder. *Administration and Policy in Mental Health and Mental Health Services Research*. 2013; 40:311–318. doi:10.1007/s10488-012-0421-0. [PubMed: 22535469]

- Sripada RK, Rauch SM, Tuerk PW, Smith E, Defever AM, Mayer RA, Venners M. Mild traumatic brain injury and treatment response in prolonged exposure for PTSD. *Journal of Traumatic Stress*. 2013; 26:369–375. doi:10.1002/jts.21813. [PubMed: 23696427]
- Steenkamp MM, Litz BT. Psychotherapy for military-related posttraumatic stress disorder: Review of the evidence. *Clinical Psychology Review*. 2013; 33:45–53. doi:10.1016/j.cpr.2012.10.002. [PubMed: 23123570]
- Tuerk PW, Yoder M, Grubaugh A, Myrick H, Hamner M, Acierno R. Prolonged exposure therapy for combat-related posttraumatic stress disorder: An examination of treatment effectiveness for veterans of the wars in Afghanistan and Iraq. *Journal of Anxiety Disorders*. 2011; 25:397–403. doi:10.1016/j.janxdis.2010.11.002. [PubMed: 21131170]
- U.S. Department of Veterans Affairs. *Veterans Health Administration handbook: VHA Directive 1160*. Author; Washington, DC: 2010.
- U.S. Department of Veterans Affairs. U. S. Department of Defense. *VA/DoD clinical practice guideline for the management of posttraumatic stress*. Author; Washington, DC: 2010.
- van Dam D, Vedel E, Ehring T, Emmelkamp PMG. Psychological treatments for concurrent posttraumatic stress disorder and substance use disorder: A systematic review. *Clinical Psychology Review*. 2012; 32:202–214. doi:10.1016/j.cpr.2012.01.004. [PubMed: 22406920]
- van Minnen A, Harned MS, Zoellner L, Mills K. Examining potential contraindications for prolonged exposure therapy for PTSD. *European Journal of Psychotraumatology*. 2012; 3:1–13. doi:10.3402/ejpt.v3i0.18805.
- Walter KH, Bolte TA, Owens GP, Chard KM. The impact of personality disorders on treatment outcome for veterans in posttraumatic stress disorder residential treatment program. *Cognitive Therapy and Research*. 2012; 36:576–584. doi:10.1002/jts.20689.