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Utilization of evidence-based psychotherapies in Veterans Affairs posttraumatic stress disorder outpatient clinics

Erin P. Finley, PhD, MPH,
South Texas Veterans Health Care System, The University of Texas Health Science Center at San Antonio

Hector A. Garcia, PsyD,
South Texas Veterans Health Care System, The University of Texas Health Science Center at San Antonio

Norma S. Ketchum, MS,
The University of Texas Health Science Center at San Antonio

Donald D. McGeary, PhD,
The University of Texas Health Science Center at San Antonio

Cindy A. McGeary, PhD,
The University of Texas Health Science Center at San Antonio

Shannon Wiltsey Stirman, PhD, and
VA Boston Healthcare System, Boston University

Alan L. Peterson, PhD
The University of Texas Health Science Center at San Antonio

Abstract

In response to the growing numbers of veterans with posttraumatic stress disorder (PTSD), the Department of Veterans Affairs (VA) has sought to make evidence-based psychotherapies for PTSD available at every VA facility. We conducted a national survey of providers within VA PTSD clinical teams (PCTs) to describe utilization of Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT) and to identify individual and organizational factors associated with treatment uptake and adherence. Participants (N = 128) completed an electronic survey assessing reported utilization of PE and CPT treatments, adherence to treatment manuals, and characteristics of the provider and workplace environment. Participants reported conducting a weekly mean of

Correspondence concerning this article should be addressed to: Erin P. Finley, Audie L. Murphy Memorial Veterans Hospital Division (11C6), 7400 Merton Minter Blvd., San Antonio, TX 78229-4404. finleye@uthscsa.edu.
Erin P. Finley, South Texas Veterans Health Care System, and Division of Hospital Medicine, Department of Medicine, and Department of Psychiatry, The University of Texas Health Science Center at San Antonio; Hector A. Garcia, South Texas Veterans Health Care System, and Department of Psychiatry, The University of Texas Health Science Center at San Antonio; Norma S. Ketchum, Department of Epidemiology and Biostatistics, The University of Texas Health Science Center at San Antonio; Donald D. McGeary, Department of Psychiatry, The University of Texas Health Science Center at San Antonio; Cindy A. McGeary, Department of Psychiatry, The University of Texas Health Science Center at San Antonio; Shannon Wiltsey Stirman, PhD, Women's Health Sciences Division, National Center for PTSD, VA Boston Healthcare System and Department of Psychiatry, Boston University; Alan L. Peterson, Department of Psychiatry, The University of Texas Health Science Center at San Antonio.

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4.5 hours of PE, 3.9 hours of CPT (individual format), 1.3 hours of CPT (group format), and 13.4 hours of supportive care. Perceived effectiveness of PE and CPT were significantly associated with utilization of and adherence to those treatments. Reported number of hours conducting supportive care was positively associated with feeling the clinic was not sufficiently staffed ($p = .05$). Adherence to the PE treatment manual was positively associated with receiving emotional support from co-workers ($p<.01$). Provider attitudes and organizational factors such as staffing and work relationships may have an important impact on treatment selection and the quality of PTSD care provided in VA PCTs.

Keywords

posttraumatic stress disorder; prolonged exposure; cognitive processing therapy; implementation; treatment selection; veterans

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Posttraumatic stress disorder (PTSD) is a prevalent psychiatric disorder among military service veterans, diagnosed in nearly one-fifth of veterans of Operations Enduring Freedom (OEF; Afghanistan), Iraqi Freedom (OIF; Iraq), and New Dawn (OND; Iraq) (Seal, Bertenthal, Miner, Sen, & Marmar, 2007; Seal et al., 2009; Tanielian & Jaycox, 2008). In response to the growing need for high-quality PTSD care, the Department of Veterans Affairs (VA) has rolled out training initiatives and created infrastructure aimed at making evidence-based psychotherapies such as Cognitive Processing Therapy (CPT) and/or Prolonged Exposure (PE) available at every VA facility (Karlin et al., 2010). Research has found CPT and PE to be both efficacious and effective at treating PTSD in male and female veterans (Eftekhari et al., 2013; Monson et al., 2006; Schnurr et al., 2007; Tuerk et al., 2011), veterans of all post-World War II conflicts (Chard, Schumm, Owens, & Cottingham, 2010; Monson et al., 2006), and veterans with traumas from combat or physical or sexual assault (Monson et al., 2006; Schnurr et al., 2007).

The VA's implementation of CPT and PE represents one of the largest system change initiatives yet attempted within a nationwide health care system (Eftekhari et al., 2013) and provides a valuable case study to inform the growing literature on the dissemination and implementation of evidence-based practices (EBPs) in mental health settings (Chorpita & Regan, 2009; Katon, Zatzick, Bond, & Williams, 2006). Publications to date have documented specific dissemination and implementation strategies used by the VA in this effort, including: offering widespread provider training followed by a rigorous protocol for supervision; post-supervision consultation support; creation of a system of EBP coordinators at every VA medical center to serve as local champions; and development of performance measures and metrics to track implementation (Chard, Ricksecker, Healy, Karlin, & Resick, 2012; Karlin et al., 2010).

Initial evaluations of this initiative appear promising, as several important studies have found significant symptom improvement among patients receiving CPT and PE since the roll-outs (Chard et al., 2012; Eftekhari et al., 2013; Karlin et al., 2010). Yet there is little information as to how much time providers spend conducting EBPs or how closely they adhere to the therapies after completing training and supervision. Recent studies have suggested that military and VA providers make many adaptations to PE and CPT (Borah et

al., 2013; Cook, Dinnen, Thompson, Simiola, & Schnurr, 2014) or fail to implement many core elements (Wilk et al., 2013). It is known that uptake of EBPs for PTSD has long lagged behind the evidence base (Ruzek & Rosen, 2009). Only a minority of clinicians in community settings report using PE with their PTSD patients (Becker, Zayfert, & Anderson, 2004), and use was fairly uncommon even within the VA prior to the rollouts (Najavits, Kivlahan, & Kosten, 2011; Rosen et al., 2004). Variation in implementation of these treatments in VA residential programs has been described (Cook et al., 2013), although most programs appear to have increased implementation over time (Cook et al., 2014). However, few studies have yet examined uptake of these treatments by providers within VA outpatient PTSD specialty care settings (Karlin et al., 2010), known as PTSD clinical teams (PCTs), where the majority of PTSD treatment occurs. There are currently 120 PCTs located in VHA facilities through the country, all of which offer education, evaluation, and treatment services provided by mental health professionals representing multiple disciplines, including psychiatry, psychology, and social work.

Consistent evidence suggests that individual- and organizational-level factors play a prominent role in shaping adoption of EBPs, often more than the actual effectiveness of a given intervention (Chorpita & Regan, 2009; Damschroder et al., 2009; Tabak, Khoong, Chambers, & Brownson, 2012). The attitudes of mental health providers toward an intervention play a demonstrable role in shaping uptake, even within organizational settings where such practices may be mandated (Aarons, 2004; Aarons, Sommerfeld, & Walrath-Greene, 2009; Jensen-Doss, Hawley, Lopez, & Osterberg, 2009). Stewart, Stirman, and Chambless (2012) found that mental health providers reported a variety of concerns about integrating EBPs into their practice, questioning the relevance of research findings to their patient population, the relative merit of manualized treatments, and the difficulty of integrating new EBPs into their usual frameworks. Such concerns point to the potential role of providers' prior training and theoretical orientation in influencing attitudes toward EBPs and their adoption. There is also evidence to suggest that providers, even those operating within settings where specific EBPs are mandated and where considerable training has been provided, rarely operate with the expectation that these EBPs will *replace* their prior modes of treatment, instead expecting that—at best—EBPs may be integrated into their existing practice frameworks(Stewart et al., 2012). Despite the demonstrated impact of individual and organizational factors on EBP adoption, there is a notable lack of research examining such factors in VA outpatient settings.

Individual providers' attitudes and practices intersect with complex features of the social and organizational settings in which they work(Aarons, Hurlburt, & Horwitz, 2011). Perhaps the most obvious of these may be the policy and economic structures operating at the state, local, or, in the case of VA, national level. Where specific practices are mandated as part of policy or incentivized as part of practice reimbursement, there is often greater and more rapid adoption (Aarons et al., 2011). The Department of Veterans Affairs and the Department of Defense have adopted clinical practice guidelines that strongly recommend use of EBPs as the first-line treatment for patients with PTSD(*VA/DoD Clinical Practice Guidelines for the Management of Post-traumatic Stress*, 2010). Yet, as noted above, even such top-down pressure may be insufficient to accomplish change in settings where

providers feel swamped by understaffing or overwork (Chard et al., 2012), or where management fails to support practice change (Walrath, Sheehan, Holden, Hernandez, & Blau, 2006) or lacks qualities of transformational leadership (Aarons, 2006). Implementation may also be more difficult when the organization is not ready for change (Weiner, 2009) or has a troubled culture or climate (Aarons & Sawitzky, 2006; Glisson & Green, 2006), or where teamwork and/or the quality of work relationships is lacking (Nutting et al., 2011). Although little information on the potential impact of these factors on adoption of PE and CPT within the VA is available, studies of CPT adoption among VA providers have found that tight schedules and heavy workloads were the primary reported barriers to use of CPT (Chard et al., 2012), and that some inpatient programs' structure was perceived to be incompatible with CPT and PE (Cook et al., 2014).

This paper describes reported utilization of PE and CPT by providers within VA specialty mental health care clinics. In addition, it provides the first known examination of individual- and organizational-level factors associated with uptake and adherence within outpatient specialty PTSD settings in the wake of VA's EBP rollout for PTSD. Building on the prior research discussed above, we proposed three initial hypotheses. First, we proposed that providers' primary theoretical orientation would be associated with differential uptake of PE and CPT; for example, providers with a cognitive behavioral orientation would be more likely to conduct PE and CPT than those with other theoretical orientations. Second, we proposed that providers' perception of greater effectiveness of PE and CPT would be positively associated with their uptake of those treatments. Third, we proposed that provider perceptions of workplace characteristics would be associated with their uptake of the EBPs such that positive workplace characteristics would be associated with greater adherence to or utilization of the EBPs.

Method

Participants

Providers were eligible for participation if they were employed more than half-time as nonprescribing mental health care providers within VHA PCT clinics at the time of the survey (Spring 2013); this included both licensed providers and unlicensed providers under supervision by a licensed provider. We received 138 completed responses to the online survey, of which 7 reported unusually high numbers of weekly hours of therapy provided (>40 hours total) and were excluded. An additional 3 respondents were trainees and were also excluded. The remaining 128 participants were primarily female (69.5%) and non-Hispanic Caucasian (82.8%), and mean age was 43.6 years (*SD* 10.6; see Table 1). The majority of participants were clinical psychologists (53.9%) or held a master's degree in social work with advanced clinical certification (32.8%). Mean time since licensure was 9.8 years (*SD* 8.6), and the majority of participants had been with their PCT Clinic for fewer than 5 years (69.5%).

Survey Procedures

All study procedures were approved by the institutional review boards of the South Texas Veterans Health Care System and The University of Texas Health Science Center at San

Antonio. The clinic directors of all VHA PTSD Clinical Teams (PCT) around the country were sent an initial email describing a study of factors related to provider burnout, including treatment utilization and individual and workplace characteristics, and were asked to forward the email to their PCT providers (Garcia et al. 2014; McGeary et al. 2014). To avoid any potential for institutional coercion, the introductory e-mail emphasized that research participation was purely voluntary and was sent and signed by our non-VA investigator. The e-mail included a link to an electronic survey located on Survey Monkey. Those who accessed the survey were informed that the study was both voluntary and confidential, that no identifying information would be collected, that data generated would only be reported in aggregate, and that PCT clinic directors would have no way of identifying whether or not they chose to respond to the survey. Consistent with these assurances, we elected Survey Monkey's option to decline the record of IP addresses for those who completed the survey, thus providing an additional layer of participant confidentiality. The invitation e-mail was sent twice, at an interval of two weeks, in order to maximize participation; on both occasions recipients were instructed how to opt out of subsequent e-mails.

VA Northeast Program Evaluation Center data indicate that 671 PCT providers met eligibility criteria during the study period (NEPEC, 2013). We received 138 responses to the survey, which suggests a response rate of at least 20.6%. We were unable to calculate a true response rate as we could not confirm how many PCT Directors forwarded the survey to eligible staff as requested.

Measures

The survey included items assessing basic demographics, training background, organizational work factors, and perceived effectiveness and utilization of PE, CPT in both individual and group [CPT-Group] formats, and other treatments. Questions regarding demographics and training inquired about gender, ethnicity, age, marital status, theoretical orientation, degree, training, licensure, and years of VA service. Organizational characteristics were assessed by asking respondents to rate their level of agreement with statements about the presence of workplace concerns (the amount of work, perceived support, administrative tasks, organizational politics, etc.) on a 5-point Likert-type scale from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). Workplace characteristics items were developed based on review of the research literature describing workplace factors affecting provider satisfaction (e.g., Maslach, Schaufeli, & Leiter, 2001; Maslach & Leiter, 1997; Maslach & Leiter, 2008). We examined provider uptake of PE, CPT, and CPT-Group as measured by reported time in hours spent providing each of the EBPs per week, as well as by reported adherence. Providers were asked to what extent they typically adhered to the PE or CPT manuals using a 5-point response option from "Never" to "Very Often." The survey also assessed whether providers had received training in PE or CPT prior to the VA's national rollout and how long it had been since they had completed national rollout training for PE or CPT. Providers were asked to report the number of hours spent providing care other than CPT or PE (e.g., supportive care, interpersonal, insight-oriented, etc.; hereafter "Other care") to veterans with PTSD in an average week. Finally, for each treatment option (PE, CPT, and Other care), participants were asked to rate "to what extent do you feel the

[treatment option] you are providing is effective (i.e., are your patients improving?)" on a 5-point Likert-type scale from 1 ("Very Ineffective") to 5 ("Very Effective").

Statistical Analysis

The purpose of this analysis was to describe the reported PTSD care practices of providers in VA PCTs and to ascertain whether the utilization of PE and CPT were associated with specific individual or organizational characteristics. Demographic characteristics of the sample, perceived effectiveness of the EBPs, and utilization variables were summarized using descriptive statistics. Primary theoretical orientation was dichotomized to differentiate providers who did or did not endorse their primary theoretical orientation as cognitive-behavioral, and demographic differences between these groups were examined using Kruskal Wallis and Fisher's Exact Tests. We used linear regression (Hogg, McKean, & Craig, 2005) to examine whether reported utilization and adherence was associated with perceived effectiveness, demographics, or workplace characteristics. Dependent variables examined included adherence to PE manual, hours of PE provided weekly, adherence to CPT manual, hours of CPT (individual) provided weekly, hours of CPT (group) provided weekly, and hours of care provided outside of PE or CPT. Manual adherence responses, perceived effectiveness responses, and workplace characteristics were assigned numeric values [(1 = "Never" to 5 = "Very Often"), (1 = "Very Ineffective" to 5 = "Very Effective"), and (1 = "Strongly Disagree" to 5 = "Strongly Agree), respectively]. We included as covariates demographic variables, perceived effectiveness variables, and workplace characteristic items that were theorized to have potential influence (e.g., theoretical orientation) or demonstrated correlations with a p-value of <.10 with the dependent variable of interest. Spearman correlations between each continuous outcome and potential covariate were used to screen for variable inclusion in the final models. Multicollinearity was assessed by examining tolerance and variance inflation factor (VIF), and all VIFs were 2 or below. Due to the exploratory nature of the study, reported p-values were not corrected for multiple testing. Statistical analyses were performed in SAS (Version 9.3; SAS Institute, Cary, NC).

Results

Utilization and Adherence of PE and CPT

Most participants reported at least weekly use of PE (85.9%) and CPT (78.1%). Survey participants reported conducting a mean of 4.5 hours of PE, 3.9 hours of CPT (individual), and 1.3 hours of CPT-Group per week. Overall, participants reported approximately 10.4 hours of any EBP and 13.4 hours of Other care per week (see Table 2). Reported adherence to EBT treatment manuals varied, with 88 (68.8%) providers reporting that they typically adhered "Very often" to the PE manual, and 67 (52.3%) providers reporting the same for the CPT manual. Providers generally felt the treatments they were providing were effective. Ratings of "effective" or "very effective" were given by 89 (69.5%) respondents for PE, 73(57.0%) respondents for CPT, and 61 (47.7%) respondents for supportive care.

Workplace Characteristics

A number of concerns were reported by providers regarding their workplace environments, with a majority of providers agreeing or strongly agreeing that they have too much clinical

work (64.1%) and administrative work (60.2%), their clinic is understaffed (53.9%), and there is a negative impact on their work associated with organizational politics (68.8%). In contrast, a majority of providers also agreed or strongly agreed that they could rely on the emotional support of co-workers (85.9%), that they have some control over their work (80.5%), that they are treated fairly by superiors (71.9%), and that their accomplishments are rewarded/acknowledged (55.5%).

Theoretical Orientation and Perceived Effectiveness of PE and CPT

Most participants identified their primary theoretical orientation as cognitive behavioral (74.2%). Individuals endorsing a cognitive-behavioral orientation were significantly younger ($p<.01$) and had been practicing significantly fewer years since licensure ($p = .01$) (see Table 3). Individuals reporting a cognitive-behavioral orientation reported significantly greater perceived effectiveness of PE than those with other orientation ($p<.01$); there was no mean difference between groups in perceived effectiveness of CPT ($p = 0.39$).

Individual and Workplace Characteristics Associated with Use of PE and CPT

Linear regression results examining each of the six utilization and adherence items as dependent variables are presented in Tables 4a and 4b. Adherence to the PE manual was positively associated with perceived effectiveness of PE ($p<.001$) and having emotional support from co-workers ($p<.01$). Number of hours of PE was positively associated with perceived effectiveness of PE ($p = .04$) and negatively associated with perceived effectiveness of CPT ($p = .01$); there was a negative association between hours of PE and feeling the clinic was understaffed ($p = .06$). Adherence to the CPT manual was positively associated with perceived effectiveness of CPT ($p<.001$) and having a primarily cognitive-behavioral orientation ($p<.001$). Number of hours of CPT was positively associated with perceived effectiveness of CPT ($p<.001$) as well as negatively associated with feeling part of a coherent team ($p = .01$). Number of hours of CPT-Group was positively associated with perceived effectiveness of CPT ($p = .04$), and with feeling the clinic was understaffed ($p = .07$). Finally, the number of hours of Other care was positively associated with years licensed ($p = .01$) and with feeling the clinic was not sufficiently staffed ($p = .05$).

Discussion

Although several important evaluations of the VA's rollout of evidence-based psychotherapies for PTSD have been published (Chard et al., 2012; Cook et al., 2013; Eftekhari et al., 2013; Karlin et al., 2010), this study represents the first known effort to examine provider and organizational factors associated with utilization of and adherence to the EBPs among VA providers in outpatient PTSD specialty care clinics.

Providers reported conducting relatively few hours of PE and CPT per week, performing more than twice as much supportive care as PE, and more than three times as much supportive care as CPT. Notably, the majority of providers reported making use of both treatments, and combined hours conducting EBPs per week nearly approached time spent doing supportive care (10.4 vs. 13.4 mean hours, respectively). Providers on the whole reported being adherent to the EBP treatment manuals and feeling the treatments they were

providing were generally effective, although PE fared slightly better in both cases. Providers also found PE and CPT to be more effective than supportive care, despite the fact that supportive care was on average absorbing a higher percentage of their time. Prior work suggests that providers often elect to deliver supportive care to a subset of patients who are not thought to be good candidates for the EBPs, particularly those with comorbidity, low motivation, or cognitive limitations (Cook et al., 2014). It is also possible that supportive care is delivered to some patients after they receive an EBP for PTSD. Qualitative research to improve our understanding of treatment selection among PCT providers is ongoing and will be of value in informing future training efforts related to the national PE/CPT rollout.

Based on prior literature describing factors associated with the uptake of new EBPs in mental health care settings (e.g., Aarons, Sommerfeld, & Walrath-Greene, 2009; Damschroder et al., 2009), we hypothesized that providers' primary theoretical orientation and perception of the effectiveness of CPT and PE would be associated with their use of these treatments and adherence to the treatment manuals. These hypotheses were largely borne out. The most commonly endorsed theoretical orientation in this sample was cognitive-behavioral, which was associated with younger age and fewer years since licensure. Perceived effectiveness of PE was significantly higher among those with a cognitive-behavioral orientation, although perceived effectiveness of CPT did not vary by orientation group. Having a cognitive-behavioral orientation was not associated with reported hours of PE or CPT, nor with adherence to the PE manual. It was, however, associated with adherence to the CPT manual.

The reason that theoretical orientation predicted adherence to CPT and not PE is unclear. In a study of Army mental healthcare providers, Wilk et al.(2013) found that providers adhered to PE far more than CPT—only 15% of their sample used all of the core components of CPT; the authors speculated that more formal training and experience in trauma-focused treatments might aid in increasing fidelity. It may be that, because it has more working components, CPT is more difficult to adhere to than PE; it may also be that having a cognitive-behavioral orientation reflects greater training in the specific skills, such as Socratic questioning, necessary to deliver CPT with fidelity.

Providers' perceived effectiveness of the EBPs was also associated with uptake and adherence, as hypothesized. Perceived effectiveness of PE was positively associated with reported adherence to the PE manual and hours of PE conducted per week. Likewise, perceived CPT effectiveness was associated with adherence to the CPT manual and hours of CPT conducted per week. Providers with a more positive view of CPT's effectiveness also reported doing fewer hours of PE per week.

Our third hypothesis was that providers who endorsed features of a negative workplace environment would report lower adherence to or utilization of EBPs. We found that feeling the clinic was not sufficiently staffed was positively associated with hours of CPT-Group ($p = .07$) and non-EBP modalities such as supportive care ($p = .05$), and negatively associated with hours of PE ($p = .06$). Although two of these associations did not achieve significance, the general trend suggests that some PCTs may have attempted to address insufficient staffing by routing veterans into CPT groups or accommodating them for infrequent

supportive care appointments rather than initiating individual PE or CPT. This finding is consistent with the prior study by Chard et al. (2012), who found that providers reported having no room in their schedules or heavy workloads as the most common barriers to initiating CPT. The potential impact of understaffing on treatment selection is concerning, particularly as at least one study has shown that CPT groups in a VA setting are markedly less effective at reducing patient distress than individual CPT(Jeffreys et al., 2013). Moreover, supportive care lacks evidence of efficacy in treating PTSD (IOM, 2007) and was perceived as less effective by providers in our study than either PE or CPT.

Workplace relationships also affected use of EBPs in our results. Not feeling part of a coherent team was negatively associated with CPT use. The reasons for this finding are unclear, but it is possible that clinicians who experience less team coherence but wish to use an EBP find CPT less taxing to implement than PE. Providers who felt less emotionally supported by coworkers also reported being less adherent to the PE manual. Trauma work can be challenging, particularly that which involves repeated exposure to traumatic material on the part of the provider (Cieslak et al., 2013; Linnerooth, Mrdjenovich, & Moore, 2011), as with PE. It may be that emotional support from coworkers enhances providers' resilience and/or makes it easier to fully engage in work that is emotionally demanding. This finding is particularly concerning as the clinical trials demonstrating PE's efficacy (Foa et al., 2005; Schnurr et al., 2007) had high manual adherence, and it is not clear to what extent treatment efficacy remains high when adherence declines. Although we did not assess treatment outcomes, this finding suggests negative workplace factors may impact not only the provider but also the quality of care the veteran patient is receiving.

These findings should be qualified by several limitations. First, the study's sample size was modest. Also, it was not possible to calculate a true response rate due to the confidentiality protections we ensured participants, which prevented verifying whether PCT Directors or their staff received the study invitation, or whether the proportion of psychologists and social workers who elected to participate was representative of invited clinic staff. Given that provider burnout was an additional focus of the research study, it may be that our sample reflects selection bias for those with an interest in that subject. Utilization and adherence variables are based on self-report and therefore lack the validity of observed behavior; moreover, we lack information on providers' total number of hours in direct clinical care that could provide insight into the percentage of time spent offering EBPs. Workplace characteristic items reflect respondents' perceptions and, because of confidentiality protections that made it impossible to identify participants' identities or location, we cannot assess whether participants located in the same facility provided concordant ratings of their workplace. Lastly, common method bias cannot be ruled out, as all of the information was gathered from participants at a single time.

Nonetheless, this is the first known study to report on the amount of time spent by providers delivering EBPs in the VA, and our findings raise important questions regarding factors influencing the potential success of one of the largest mental health implementation initiatives ever undertaken. Both utilization of and adherence to PE and CPT emerged as strongly influenced by providers' perception of the treatments' effectiveness. This finding is not surprising, given that attitudes and beliefs about a new practice are almost universally

included in conceptual models of practice uptake (Damschroder et al., 2009; Rogers, 2003; Stetler, Damschroder, Helfrich, & Hagedorn, 2011), but it does suggest the need to consider how best to increase providers' sense of treatment effectiveness in this and future rollouts. The VA was critiqued in a recent Institute of Medicine report for failing to consistently document treatment outcomes for patients in outpatient PTSD care (IOM, 2014). Collecting treatment outcomes may help clinicians to evaluate the effectiveness of the treatments they are using (Ivers et al., 2012), which may in turn influence perceptions of treatment effectiveness and increase EBP utilization and adherence.

Our results also highlight the need to consider how features of the work environment may impact the success of organizational efforts like the PE/CPT rollouts. Prior studies suggest that it may be more difficult to achieve EBP uptake when mental health providers lack sufficient resources to keep up with high patient demand (Chard et al., 2012; Lewis & Simons, 2011), which is consistent with our finding that clinicians reported more hours of non-EBP care in clinics they felt were inadequately staffed. Increasing clinical staffing at VA PCTs, therefore, may result not only in more timely access to care services for veterans, which has been a concern in recent years (IOM, 2014), but also in PCT providers spending more time delivering EBPs. Although staffing is costly, increased delivery of EBPs may well result in long-term reductions in veterans' service and disability needs, making staffing investments likely to prove cost-effective over time. The association between having emotional support from co-workers and increased adherence to the PE manual also suggests that maintaining high-quality relationships among PCT providers may have relevance not only for staff well-being (Garcia, McGeary, McGeary, Finley, & Peterson, 2014), but for the quality of care provided. Foa, Hembree, & Rothbaum (2007) have recommended that PE providers discuss challenging cases or seek emotional support when necessary, and dedicating time for VA mental health providers to engage in these activities may help to promote more effective delivery of evidence-based care.

VA continues to face challenges in its endeavor to provide high-quality care for PTSD amid ongoing pressure to guarantee timely access to VA mental health services for a growing population of veterans. The rollouts have made VA a leader in the effort to make EBPs available to patients, with enormous potential for benefiting veterans as well as their families and communities. Efforts to ensure the rollouts' success and sustainment should remain of the highest priority. The current research suggests that increasing staffing, enhancing perceptions of PE and CPT treatment effectiveness, and supporting positive work environments may prove to be important components of those efforts.

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Table 1

Survey Sample Characteristics

	Frequency Number (Percent)	Mean (SD)	Range
Demographics			
Age	128	43.6 (10.6)	28–67
Sex			
Female	89 (69.5)		
Male	39 (30.5)		
Ethnicity			
African-American	7 (5.5)		
Hispanic	6 (4.7)		
White	106 (82.8)		
Other	7 (5.5)		
Highest Degree			
Doctorate in Clinical Psychology	69 (53.9)		
Doctorate in Counseling Psychology	15 (11.7)		
Masters in Social Work	2 (1.6)		
Masters in Social Work with Advanced Clinical Certification	42 (32.8)		
Training Status			
Postdoctoral Fellow	8 (6.3)		
N/A	120 (93.8)		
Years since Licensure		9.8 (8.6)	0–38
Years at PCT			
<1	19 (14.8)		
1–2	14 (10.9)		
2–3	18 (14.1)		
3–4	18 (14.1)		
4–5	20 (15.6)		
>5	39 (30.5)		
Primary Theoretical Orientation			
Cognitive Behavioral	95 (74.2)		

	Frequency Number (Percent)	Mean (SD)	Range
Psychodynamic	8 (6.3)		
Humanistic	3 (2.3)		
Eclectic	19 (14.8)		
Other	3 (2.3)		
Received training in Prolonged Exposure for PTSD prior to the National Rollout			
Yes	42 (32.8)		
No	86 (67.2)		
Received training in Cognitive Processing Therapy for PTSD prior to the National Rollout			
Yes	56 (43.8)		
No	72 (56.3)		

Table 2

Self-Reported EBP Utilization and Adherence among 128 VHA Mental Health Clinicians

	Frequency Number (Percent)	Mean (SD)	Range
Hours you spend providing Prolonged Exposure (PE) in an average week		4.5 (4)	0–20
To what extent do you feel the PE you are providing is effective?			
Very ineffective	7 (5.5)		
Ineffective	2 (1.6)		
Fairly effective	30 (23.4)		
Effective	52 (40.6)		
Very effective	37 (28.9)		
To what extent do you typically adhere to the PE manual?			
Never	10 (7.8)		
Sometimes	4 (3.1)		
Fairly often	26 (20.3)		
Very often	88 (68.8)		
Hours you spend providing individual Cognitive Processing Therapy (CPT) in an average week		3.9 (3.9)	0–20
Hours you spend providing Cognitive Processing Therapy in a group format (CPT group) in an average week		1.3 (1.7)	0–9
To what extent do you feel the CPT you are providing is effective?			
Very ineffective	4 (3.1)		
Ineffective	11 (8.6)		
Fairly effective	40 (31.3)		
Effective	52 (40.6)		
Very effective	21 (16.4)		
To what extent do you typically adhere to the CPT manual?			
Never	8 (6.3)		
Almost never	2 (1.6)		
Sometimes	10 (7.8)		
Fairly often	41 (32)		
Very often	67 (52.3)		
Weekly hours you spend providing care outside CPT or PE (e.g., supportive care, interpersonal, insight-oriented, etc.) in an average week		13.4 (8.4)	0–40
To what extent do you feel the supportive care you are providing is effective?			

	Frequency Number (Percent)	Mean (SD)	Range
Very ineffective	1 (0.8)		
Ineffective	12 (9.4)		
Fairly effective	54 (42.2)		
Effective	54 (42.2)		
Very effective	7 (5.5)		
Does PE in an average week			
Yes	110 (85.9)		
No	18 (14.1)		
Does CPT in an average week			
Yes	100 (78.1)		
No	28 (21.9)		
Does CPT group in an average week			
Yes	60 (46.9)		
No	68 (53.1)		
Total weekly hours spent providing evidence-based treatments		10.4 (6)	0–28

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Table 3

Demographic Differences in Identifying Primary Theoretical Orientation as Cognitive Behavioral among PCT Providers

Variable	Use CB as Primary			
	No ***N*= 33**	**Yes** ***N* = 95**	**Total** ***N* = 128**	**P-value**
Age[1]				0.007
Mean (*SD*)	48.76 (12.17)	41.77 (9.46)	43.57 (10.63)	
Min, Max	30, 67	28, 65	28, 67	
Gender[2], N (%)				0.51
Female	25 (75.8)	64 (67.4)	89 (69.5)	
Male	8 (24.2)	31 (32.6)	39 (30.5)	
Years at PCT[1]				0.24
Mean (*SD*)	3.18 (1.93)	2.88 (1.79)	2.9 (1.82)	
Min, Max	0, 5	0, 5	0, 5	
Years since licensure[1]				0.01
Mean (*SD*)	13.5 (10.5)	8.5 (7.4)	9.8 (8.6)	
Min, Max	0, 38	0, 30	0, 38	
Degree[2], *N* (%)				0.08
Doc in clinical psychology	16 (48.5)	53 (55.8)	69 (53.9)	
Doc in counseling psychology	8 (24.2)	7 (7.4)	15 (11.7)	
Masters in social work	0 (0)	2 (2.1)	2 (1.6)	
Masters in social work w/certif	9 (27.3)	33 (34.7)	42 (32.8)	
Effectiveness of Prolonged Exposure (PE)				0.007
Mean (SD)	3.4 (1.2)	4 (0.9)	3.9 (1)	
Min, Max	1, 5	1, 5	1, 5	
Effectiveness of Cognitive Processing Therapy (CPT)				0.39
Mean (SD)	3.4 (1.1)	3.6 (0.9)	3.6 (1)	
Min, Max	1, 5	1, 5	1, 5	
PE Training Prior to the Rollout				0.67
No	21 (63.6)	65 (68.4)	86 (67.2)	
Yes	12 (36.4)	30 (31.6)	42 (32.8)	

Variable	Use CB as Primary		Total	P-value
	No *N*= 33	Yes *N* = 95	*N* = 128	
CPT Training Prior to the Rollout				0.68
No	20 (60.6)	52 (54.7)	72 (56.3)	
Yes	13 (39.4)	43 (45.3)	54 (43.8)	

[1] Kruskal-wallis Test

[2] Fisher's Exact Test

Table 4a

Linear regression model results for Prolonged Exposure (PE) utilization and adherence and non evidence-based practice (non-EBP) utilization

	Adherence to PE Manual		Hours PE		Hours Other Care	
Variable	**Estimates (SE)**	**P-value[1]**	**Estimates (SE)**	**P-value[1]**	**Estimates (SE)**	**P-value[1]**
Intercept	0.665(0.901)	0.46	8.252(3.408)	0.02	5.457(3.964)	0.17
Perceived Effectiveness of PE	0.518(0.087)	<0.001	0.718(0.352)	0.04	−0.424(0.702)	0.55
Perceived Effectiveness of CPT			−0.926(0.359)	0.01		
Cognitive Behavioral Orientation	0.125(0.192)	0.52	0.562(0.834)	0.5	−2.351(1.633)	0.15
Years at PCT					0.526(0.432)	0.23
Years Licensed			0.012(0.043)	0.78	0.197(0.094)	0.04
Too much clinical work			−0.283(0.557)	0.61	0.943(1.077)	0.38
Clinic not sufficiently staffed	−0.035(0.079)	0.65	−0.65(0.348)	0.06	1.315(0.675)	0.05
Too much administrative work	−0.009(0.094)	0.93				
Organizational politics	0.097(0.112)	0.39	−0.053(0.42)	0.9		
Emotional support from coworkers	0.277(0.105)	0.009				
Control over work	0.099(0.107)	0.36				
Treated fairly by superiors	0.085(0.112)	0.45	−0.164(0.397)	0.68		
Accomplishments rewarded	0.035(0.095)	0.71				

[1] General Linear Model.

Table 4b

Linear regression model results for Cognitive Processing Therapy (CPT) utilization and adherence

	Adherence to CPT manual		Hours CPT		Hours CPT Group	
Variable	**Estimates (SE)**	**P-value[1]**	**Estimates (SE)**	**P-value[1]**	**Estimates (SE)**	**P-value[1]**
Intercept	2.304(0.509)	<0.001	3.618(1.583)	0.02	−0.985(1.276)	0.44
Perceived Effectiveness of CPT	0.542(0.083)	<0.001	1.203(0.338)	<0.001	0.312(0.149)	0.04
Cognitive Behavioral Orientation	0.702(0.182)	<0.001	0.39(0.746)	0.6	−0.09(0.334)	0.79
Clinic not sufficiently staffed					0.235(0.13)	0.07
Coherent team			−0.8(0.321)	0.01		
Too much administrative work	−0.026(0.078)	0.74				
Organizational politics					0.199(0.173)	0.25
Treated fairly by superiors					−0.02(0.17)	0.91
Accomplishments rewarded	0.029(0.073)	0.69				

[1] General Linear Model.