

Patient Engagement and Group Therapy in PTSD Treatment

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Patient Engagement in PTSD Treatment

For patients with PTSD to derive the greatest benefit from available evidence-based psychotherapies and psychiatric medications they must be able to fully engage in their treatment. However, a wealth of published data demonstrates that a majority of service members and Veterans with PTSD are not successful in doing so (e.g., Hoge et al., 2014; Spoont, Murdoch, Hodges, & Nugent, 2010). Patient engagement in mental health services has received relatively little attention as compared to the substantial consideration given to patient engagement in the design and delivery of patient-centered physical health care (Carman et al., 2013). Below, we provide a selective review of the available literature in an attempt to describe factors that make patients more likely to engage in PTSD treatment and identify interventions that may improve patient engagement in PTSD treatment, with a focus on evidence-based treatments. Following Gruman et al.'s (2010) conceptualization, we define patient engagement as the behaviors required to achieve optimal benefit from health care. The review focuses on the three aspects of engagement most often examined in the PTSD literature: treatment initiation (utilizing care; starting treatment), retention (completing the intended course of treatment), and adherence (performing behaviors in the treatment plan). The scope of the review is adult patients' engagement in PTSD treatment; however, due to limited data regarding civilians' engagement, a majority of the studies reviewed focus on active duty and Veteran populations. Following the review, we evaluate this literature within a patient engagement conceptual framework and suggest future research directions.

Factors Associated with Engagement

Demographic factors such as age, gender, race, and ethnicity have been the most frequently studied and are among the few variables that have consistently demonstrated significant associations with treatment

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initiation and retention across studies. Patient age has repeatedly been found to predict initiation and retention in general mental health treatment, psychotherapy, and evidence-based psychotherapy (EBP) in that younger patients are less likely to initiate and be retained in treatment (Goetter et al., 2015; Kehle-Forbes, Meis, Spoont, & Polusny, 2016; Spoont et al., 2014). Patient race has also been shown to be associated with treatment initiation and retention, although not as consistently as age (Goetter et al., 2015; Spoont, Hodges, Murdoch, & Nugent, 2009; Spoont et al., 2015). For example, African American and Latino Veterans were found to be less likely than white Veterans to receive a minimally adequate trial of treatment (both psychotherapy and pharmacotherapy for African American Veterans; pharmacotherapy only for Latino Veterans) within six months of PTSD diagnosis (Spoont et al., 2015). Negative attitudes towards psychotherapy and pharmacotherapy (e.g., believing that treatment wouldn't be helpful) accounted for the disparity in Latino Veterans' retention, but the disparities in African American Veterans' retention remained after accounting for treatment-related beliefs (Spoont et al., 2015). Findings regarding the associations between engagement and other demographic variables such as Veterans' service connection status, marital status, and employment have been equivocal (Goetter et al., 2015; Mott, Mondragon, et al., 2014; Grubbs et al., 2015). Potentially modifiable factors underlying differences in engagement between demographic groups should be the focus of future research.

Pretreatment symptomology and patients' social environments are two nondemographic factors that have been subject to considerable study. Research regarding the impact of PTSD severity on initiation and retention has yielded inconsistent results, with some studies showing that higher total levels of

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severity are associated with engagement and others failing to find a relationship (Goetter et al., 2015; Grubbs et al., 2015; Kehle-Forbes et al., 2016; Spont et al., 2014). Researchers have also tested the hypothesis that high levels of avoidance symptoms may interfere with engagement, but as with total PTSD symptom severity, the results have been mixed (Harpaz-Rotem, Rosenheck, Pietrzak, & Southwick, 2014; Bryant et al., 2007). The associated construct of perceived need for treatment has been a more robust predictor. Feeling as though they could manage their symptoms on their own (e.g., self-sufficiency) was the most frequent reason for treatment dropout given by soldiers with PTSD (Hoge et al., 2014). Similarly, Spont et al. (2015) found that perceived need for treatment was a robust independent predictor of treatment initiation following a PTSD diagnosis. The impact of one's environment has also been shown in multiple studies to impact engagement. Social support has been shown to be associated with retention in EBPs (Goetter et al., 2015), encouragement by one's social network was found to be predictive of PTSD treatment initiation (Spont et al., 2014), and concerns that others at work may lose confidence in you or treat you differently (e.g., stigma) was one of soldiers' most commonly cited reasons for treatment dropout (Hoge et al., 2014). These findings suggest that beliefs about the need for treatment and patients' social environments may be effective intervention targets.

Patient "readiness" for treatment is often targeted in largely untested, but frequently implemented group interventions designed to improve Veterans' engagement in EBPs such as prolonged exposure (PE) and cognitive processing therapy (CPT; Hamblen et al., 2015). While what constitutes readiness for PTSD treatment has not been explicitly defined, qualitative interviews with PTSD clinicians discovered that willingness to remain in treatment and change behavior, ability to tolerate and cope with negative emotions, and "buy-in" to the treatment rationale are central to clinicians' conceptualizations (Zubkoff, Carpenter-Song, Shiner, Ronconi, & Watts, 2016). Jakupcak and colleagues (2013) examined the related construct of readiness to change, a concept derived from the transtheoretical model that presents stages through which one moves in enacting intentional behavior change. They demonstrated that being in the contemplation (considering behavior change), action (currently engaged in behavior change), and maintenance (taking steps to maintain changes already made) stages of change predicted retention in mental health services among Veterans who screened positive for one of several mental health disorders (including PTSD; Jakupcak et al., 2013). However, despite its clinical popularity, to the best of our knowledge no studies have examined the association between readiness and engagement in EBPs. Direct study of readiness as it is currently being conceptualized in PTSD clinics and its relationship to PE and CPT engagement is imperative given its popularity in the field.

Interventions to Improve Engagement

Interventions that include motivational enhancement strategies have been the most widely evaluated. In a small randomized control trial (RCT), Seal and colleagues (2012) found that four telephone sessions of motivational interviewing resulted in increased rates of mental health treatment initiation and greater treatment retention among VA-enrolled Iraq (OIF) and Afghanistan (OEF) war Veterans who screened positive for PTSD (58% of the sample) or another mental health problem. The intervention resulted in 62% of Veterans attending at least one session during which mental health was discussed (compared to 26% in the control condition) and a mean total of 1.68 mental-health focused appointments (versus 0.38 sessions for the

control condition) within 16 weeks. A second RCT examined the impact of a four session in-person motivational enhancement group on retention in a twelve-month cognitive-behavioral outpatient treatment program for Veterans with PTSD (Murphy, Thompson, Murray, Rainey, & Uddo, 2009). The intervention sought to help patients reduce ambivalence about changing PTSD-related problematic behaviors. Veterans randomized to the motivational enhancement group attended significantly more PTSD program appointments (65% versus 54%) and remained in the PTSD program longer (8.8 months versus 7.35 months) than Veterans randomized to a control PTSD education group. Contrary to the authors' hypotheses, Veterans assigned to the motivational enhancement group did not report a greater readiness to change than those assigned to the control condition and the rates of overall PTSD program dropout did not differ between the two conditions. These trials suggest that motivational enhancement interventions may yield small to moderate positive effects on PTSD treatment initiation and retention; however, given that neither trial examined engagement in EPB or pharmacotherapy, the potential impact on those treatments remains largely unknown. Only one published study has examined the effect of an intervention designed to increase motivation to participate in EBPs. DeViva and colleagues examined a brief educational and treatment planning group designed to increase readiness for EBPs for PTSD (DeViva, Bassett, Santoro, & Fenton, 2016). While the naturalistic design of the study limits the conclusions that can be drawn, the intervention was associated with a greater proportion of Veterans choosing to participate in PE and CPT (actual initiation rates were not reported), but not retention in those treatments.

Rosen et al. (2017) examined the effectiveness of a telephone care management intervention that included motivation enhancement strategies as well as risk and symptom assessment, positive feedback for the use of coping skills and treatment adherence, brief problem solving of treatment-interfering behaviors, and communication of increased risk or symptomology to providers. Veterans randomized to care management completed 43% more mental health visits and attended significantly more psychotherapy appointments (3.1 versus 2.2 visits) during the three-month intervention than those randomized to usual care. Surprisingly, the increased retention did not correspond with greater improvements in mental health symptoms, perhaps due to the small proportion of Veterans in the sample receiving evidence-based treatment. Fortney et al. (2015) examined the effectiveness of a similar telephone care management program paired with the interactive video delivery of CPT and psychiatric consultation. Rural Veterans randomized to the telemedicine-based collaborative care condition were significantly more likely to initiate (54% versus 12%) and complete at least eight sessions (27% versus 5%) of CPT than rural Veterans randomized to usual care; initiation and adherence to evidence-based pharmacotherapy did not differ by condition. Greater CPT retention in the collaborative care condition resulted in significantly larger decreases in PTSD symptomology for those in the collaborative care condition than those in usual care. The differing outcomes of these two well-designed trials demonstrate the importance of developing interventions to specifically improve engagement in evidence-based treatments, rather than in PTSD treatment more broadly.

Several novel strategies for increasing engagement in PTSD treatment are in the early stages of evaluation. For example, shared decision-making may improve engagement in EBP. A pilot randomized trial demonstrated that a 30-minute session devoted to providers and

patients collaboratively reviewing treatment options (EBPs and other psychotherapy options) and deciding on a treatment plan resulted in greater PE and CPT initiation and greater psychotherapy retention than treatment planning as usual (Mott, Stanley, Street, Grady, & Teng, 2014). Researchers have investigated novel pharmacological augmentation strategies to improve engagement in EBPs. In a small, double-blind RCT, Yehuda and colleagues (2015) demonstrated that receiving 30 mg of hydrocortisone (as compared to placebo) prior to PE sessions containing imaginal exposure resulted in greater treatment retention (9.42 versus 6.00 sessions) and associated improvements in PTSD symptom severity. Incorporating technology, such as mobile applications, into EBPs to reduce barriers to engagement is another potential strategy for improving engagement (particularly adherence). A mobile application has been designed to support the delivery of PE through appointment reminders, convenient access to homework assignments, and homework tracking, but with the exception of a two-person pilot, its impact on engagement has yet to be evaluated (Reger et al., 2013). All of these newly-developed interventions warrant further investigation. Finally, it has been proposed that completion of Seeking Safety, a cognitive-behavioral skills-based treatment for comorbid PTSD and substance use disorders (SUD), may facilitate EBP initiation among Veterans who were previously unwilling to engage in such treatment (Norman, Wilkins, Tapert, Lang, & Najavits, 2010). However, the current evidence base for Seeking Safety as an engagement strategy is weak and further research is needed. More broadly, the identification of both unique and nonspecific components of prior treatments that foster subsequent EBP engagement may enable the development of effective engagement interventions for those initially unwilling to initiate EBP.

Future Directions

While initiation, retention, and adherence in effective treatments are good indicators of patient engagement, we can consider these elements to reflect broader domains of behavior that constitute engagement. For example, the Robert Wood Johnson Foundation Aligning Forces for Quality initiative groups engagement behaviors into self-management, health promotion, patient-provider communication, and 'shopping behaviors' (Mittler, Martsof, Telenko, & Scanlon, 2013). Self-management behaviors include treatment adherence, but also other behaviors that control or reduce the impact of symptoms on functioning and quality of life. Patient-provider communication places an emphasis on a collaborative relationship in which patients are encouraged to express questions or concerns, and engage in ongoing shared decision-making about treatment risks/side-effects, benefits, and the fit with the patient's goals and resources. 'Shopping behaviors' include information seeking and critical evaluation of health care and treatment options; treatment initiation and retention may be shopping behaviors inasmuch as the decision to start or continue treatment is a function of the perceived benefit of that treatment. Furthermore, this conceptualization notes that engagement behaviors are context sensitive. Socio-cultural contexts such as social norms, identities, and social supports will influence engagement behavior, and both provider and health care contexts can influence behavior by providing engagement opportunities (Carman et al., 2013; Mittler et al., 2013). For example, patient access to medical record progress notes and patient portals facilitate patient engagement, and providers appear to be more responsive and provide more information when interacting with more highly engaged patients (Carman et al., 2013; Cené et al., 2016). This broad conceptualization of engagement can inform perspectives on engagement with PTSD treatment.

Further investigation of the role of the provider context may be especially informative. Though engagement is reflected by individual behaviors, many of these behaviors are a function of patient-provider interactions. In the broader psychotherapy literature, greater provider experience and relationship factors such as empathy, collaboration, and shared goals and priorities are associated with better retention, participation, and adherence (Eliacin, Rollins, Burgess, Salyers, & Matthias, 2016; Holdsworth, Bowen, Brown, & Howat, 2014). Although there are few published studies, available data suggest that similar factors may be associated with retention in psychotherapy for PTSD (Ehlers et al., 2013; Keller, Zoellner, & Feeny, 2010). Patients' success in engaging in treatment and the barriers to doing so are likely fluid throughout the course of treatment, requiring providers to adeptly identify and respond to ongoing individual variability. As such, enhancing patient-provider communication throughout the course of treatment and developing a strong therapeutic alliance within the context of EBPs have the potential to increase patient engagement.

Few studies have examined or attempted to modify engagement behaviors other than initiation and retention. Future research should place a greater focus on measuring adherence behaviors, identifying potentially modifiable factors associated with greater adherence, and evaluating adherence interventions. Tetley and colleagues' review of psychotherapy engagement measures can provide a starting place for researchers seeking to examine a broader range of engagement behaviors; domains of engagement that may be relevant to EBP adherence include completion of treatment within the expected timeframe, completion of between-session assignments (e.g., homework), and contribution to therapy sessions (Tetley, Jinks, Huband, & Howells, 2011).

Finally, with the exception of identifying patients' social environments as a factor associated with engagement, relatively few studies have considered the context in which PTSD treatment occurs. Particularly notable is the lack of attention paid to the healthcare system in which the treatment is delivered. Fortney et al. (2015) demonstrated the potential impact of changing system-level factors such as team structure and location of care on patient engagement; their intervention which included offering evidence-based treatments for PTSD via telemedicine was one of the most successful in improving engagement. Future research should examine the impact of expanding delivery of evidence-based PTSD treatments to other care settings already utilized by patients (e.g., primary care) on engagement. The association between patient engagement behaviors and other aspects of the healthcare context, such as commitment to a recovery orientation, clinic processes (e.g. mandated participation in pre-EBP groups), and access factors such as wait-time to EBP should also be examined. In summary, broadening the domains of engagement that are evaluated and routinely considering nonpatient-level factors associated with engagement would further the literature and likely result in more effective interventions.

Conclusions

Few consistent predictors of patient engagement in PTSD treatment have been identified, and a limited number of those that have been identified are modifiable. Because engagement in PTSD treatment has rarely been the primary focus of research projects, investigators have relied on previously collected or readily available administrative data. This has yielded a largely atheoretical approach to the problem. Grounding future studies in a conceptual model of engagement may facilitate the identification of robust, modifiable predictors more quickly.

Treatments that include motivational enhancement strategies appear to have modest effects on treatment initiation and retention; however, their impact on engagement in evidence-based treatments is unknown. The intervention literature highlights the importance of developing interventions that specifically increase engagement in evidence-based treatments in order to have the greatest impact on patients' health. This literature also underscores the importance of assessing patient outcomes in addition to engagement behaviors when evaluating interventions. Finally, it is important to note that the preponderance of PTSD engagement studies has been conducted with U.S. Veterans, particularly over the last five years; it is unclear if the findings generalize to other populations, especially given the potentially important role of context in treatment engagement.

References

Cené, C. W., Johnson, B. H., Wells, N., Baker, B., Davis, R., & Turchi, R. (2016). **A narrative review of patient and family engagement: The "foundation" of the medical "home."** *Medical Care*, 54, 697-705. doi:10.1097/MLR.0000000000000548

Gruman, J., Rovner, M. H., French, M. E., Jeffress, D., Sofaer, S., Shaller, D., & Prager, D. J. (2010). **From patient education to patient engagement: Implications for the field of patient education.** *Patient Education and Counseling*, 78, 350-356. doi:10.1016/j.pec.2010.02.002

Zubkoff, L., Carpenter-Song, E., Shiner, B., Ronconi, J. M., & Watts, B. V. (2016). **Clinicians' perception of patient readiness for treatment: An emerging theme in implementation science?** *Administration and Policy in Mental Health and Mental Health Services Research*, 43, 250-258. doi:10.1007/s10488-015-0635-z

FEATURED ARTICLES

DeViva, J. C., Bassett, G. A., Santoro, G. M., & Fenton, L. (2016). **Effects of a brief education and treatment-planning group on evidence-based PTSD treatment utilization and completion among veterans.** *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. doi:10.1037/tra0000189
Objective: Veterans with posttraumatic stress disorder (PTSD) presenting for care with Veterans Affairs Health Care System (VA) tend not to engage in evidence-based psychotherapies (EBPs) despite widespread availability of these treatments. Though there is little evidence that "readiness for treatment" affects treatment choice, many VA providers believe that interventions to increase readiness would be helpful. This naturalistic study examined the effects of a 4-session education/treatment-planning group on treatment choice among veterans in a VA outpatient PTSD treatment program.
Method: Treatment choices and completion rates of 114 veterans who received at least 1 session of the group (EG) were compared with those of 68 veterans who did not receive the group and received PTSD program treatment as usual (TAU). TAU and EG cases were matched on gender and service era.
Results: Of 114 EG cases, 52 (45.6%) chose to receive EBPs, compared with 10 of 68 TAU cases (14.7%). These rates were significantly different, $\chi^2(1) = 18.1$, $p < .0001$. Among cases choosing EBPs, 52.2% of EG cases completed the EBPs as planned, compared with 60% of TAU cases. These percentages were not significantly different. Among EG cases choosing EBPs, lower likelihood of treatment completion was related

to psychiatric medication prescription, presence of PTSD service connection, and higher overall service-connection level. *Conclusion:* The education/treatment-planning group was associated with higher likelihood of selecting but not completing EBPs for PTSD. The decision to engage in trauma-focused treatment may be a different process from the decision to complete such treatment.

Fortney, J. C., Pyne, J. M., Kimbrell, T. A., Hudson, T. J., Robinson, D. E., Schneider, R., . . . & Schnurr, P. P. (2015). **Telemedicine-based collaborative care for posttraumatic stress disorder: A randomized clinical trial.** *JAMA Psychiatry*, 72, 58-67. doi:10.1001/jamapsychiatry.2014.1575
Importance: Posttraumatic stress disorder (PTSD) is prevalent, persistent, and disabling. Although psychotherapy and pharmacotherapy have proven efficacious in randomized clinical trials, geographic barriers impede rural veterans from engaging in these evidence-based treatments. *Objective:* To test a telemedicine-based collaborative care model designed to improve engagement in evidence-based treatment of PTSD. *Design, Setting, and Participants:* The Telemedicine Outreach for PTSD (TOP) study used a pragmatic randomized effectiveness trial design with intention-to-treat analyses. Outpatients were recruited from 11 Department of Veterans Affairs (VA) community-based outpatient clinics serving predominantly rural veterans. Inclusion required meeting diagnostic criteria for current PTSD according to the Clinician-Administered PTSD Scale. Exclusion criteria included receiving PTSD treatment at a VA medical center or a current diagnosis of schizophrenia, bipolar disorder, or substance dependence. Two hundred sixty-five veterans were enrolled from November 23, 2009, through September 28, 2011, randomized to usual care (UC) or the TOP intervention, and followed up for 12 months. *Interventions:* Off-site PTSD care teams located at VA medical centers supported on-site community-based outpatient clinic providers. Off-site PTSD care teams included telephone nurse care managers, telephone pharmacists, telepsychologists, and telepsychiatrists. Nurses conducted care management activities. Pharmacists reviewed medication histories. Psychologists delivered cognitive processing therapy via interactive video. Psychiatrists supervised the team and conducted interactive video psychiatric consultations. *Main Outcomes and Measures:* The primary outcome was PTSD severity as measured by the Posttraumatic Diagnostic Scale. Process-of-care outcomes included medication prescribing and regimen adherence and initiation of and adherence to cognitive processing therapy. *Results:* During the 12-month follow-up period, 73 of the 133 patients randomized to TOP (54.9%) received cognitive processing therapy compared with 16 of 132 randomized to UC (12.1%) (odds ratio, 18.08 [95% CI, 7.96-41.06]; $P < .001$). Patients in the TOP arm had significantly larger decreases in Posttraumatic Diagnostic Scale scores (from 35.0 to 29.1) compared with those in the UC arm (from 33.5 to 32.1) at 6 months ($\beta = -3.81$; $P = .002$). Patients in the TOP arm also had significantly larger decreases in Posttraumatic Diagnostic Scale scores (from 35.0 to 30.1) compared with those in the UC arm (from 33.5 to 31.7) at 12 months ($\beta = -2.49$; $P = .04$). There were no significant group differences in the number of PTSD medications prescribed and adherence to medication regimens were not significant. Attendance at 8 or more sessions of cognitive processing therapy significantly predicted improvement in Posttraumatic Diagnostic Scale scores ($\beta = -3.86$ [95% CI, -7.19 to -0.54]; $P = .02$) and fully mediated the intervention effect at 12 months. *Conclusions and Relevance:* Telemedicine-based collaborative care can successfully engage rural veterans in evidence-based psychotherapy to improve PTSD outcomes.

Goetter, E. M., Bui, E., Ojserkis, R. A., Zakarian, R. J., Brendel, R. W., & Simon, N. M. (2015). **A systematic review of dropout from psychotherapy for posttraumatic stress disorder among Iraq and Afghanistan combat veterans.** *Journal of Traumatic Stress, 28*, 401-409. doi:10.1002/jts.22038 A significant number of veterans of the conflicts in Iraq and Afghanistan have posttraumatic stress disorder (PTSD), yet underutilization of mental health treatment remains a significant problem. The purpose of this review was to summarize rates of dropout from outpatient, psychosocial PTSD interventions provided to U.S. Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and Operation New Dawn (OND) veterans with combat-related PTSD. There were 788 articles that were identified which yielded 20 studies involving 1,191 individuals eligible for the review. The dropout rates in individual studies ranged from 5.0% to 78.2%, and the overall pooled dropout rate was 36%, 95% CI [26.20, 43.90]. The dropout rate differed marginally by study type (routine clinical care settings had higher dropout rates than clinical trials) and treatment format (group treatment had higher dropout rates than individual treatment), but not by whether comorbid substance dependence was excluded, by treatment modality (telemedicine vs. in-person treatment), or treatment type (exposure therapy vs. nonexposure therapy). Dropout is a critical aspect of the problem of underutilization of care among OEF/OIF/OND veterans with combat-related PTSD. Innovative strategies to enhance treatment retention are needed.

Grubbs, K. M., Fortney, J. C., Pyne, J. M., Hudson, T., Moore, W. M., Custer, P., . . . & Schnurr, P. P. (2015). **Predictors of initiation and engagement of cognitive processing therapy among veterans with PTSD enrolled in collaborative care.** *Journal of Traumatic Stress, 28*, 580-584. doi:10.1002/jts.22049 Collaborative care (CC) increases access to evidence-based pharmacotherapy and psychotherapy. The study aim was to identify the characteristics of rural veterans receiving a telemedicine-based CC intervention for posttraumatic stress disorder (PTSD) who initiated and engaged in cognitive processing therapy (CPT) delivered via interactive video. Veterans diagnosed with PTSD were recruited from 11 community-based outpatient clinics ($N = 133$). Chart abstraction identified all mental health encounters received during the 12-month study. General linear mixed models were used to identify characteristics that predicted CPT initiation and engagement (attendance at 8 or more sessions). For initiation, higher PTSD severity according to the Clinician Administered PTSD Scale ($d = -0.39, p = .038$) and opt-out recruitment (vs. self-referral; $d = -0.49, p = .010$) were negative predictors. For engagement, major depression ($d = -1.32, p = .006$) was a negative predictor whereas a pending claim for military service connected disability ($d = 2.02, p = .008$) was a positive predictor. In general, veterans enrolled in CC initiated and engaged in CPT at higher rates than usual care. Those with more severe symptoms and comorbidity, however, were at risk of not starting or completing CPT.

Harpaz-Rotem, I., Rosenheck, R. A., Pietrzak, R. H., & Southwick, S. M. (2014). **Determinants of prospective engagement in mental health treatment among symptomatic Iraq/Afghanistan veterans.** *The Journal of Nervous and Mental Disease, 202*, 97-104. doi:10.1097/NMD.000000000000078 There is considerable public and professional concern about the mental health status of veterans deployed to Iraq and Afghanistan as well as how to engage and retain symptomatic veterans in treatment. This study examined

demographic, psychiatric, and psychosocial determinants of prospective initiation and retention in mental health services among symptomatic Iraq/Afghanistan veterans. One hundred thirty-seven symptomatic veterans who were referred to mental health screening completed a survey at the time of their first mental health visit. Associations between survey variables and subsequent Veterans Affairs service utilization were evaluated. The most consistent determinants of mental health service initiation and retention were severity of posttraumatic stress disorder (PTSD) and depressive symptoms. Notably, whereas PTSD-related re-experiencing symptoms were independently associated with initiation of mental health treatment, PTSD-related numbing symptoms were independently associated with retention in treatment. Stigma, barriers to care, and beliefs about mental health treatment were not associated with either mental health initiation or retention.

Hoge, C. W., Grossman, S. H., Auchterlonie, J. L., Riviere, L. A., Milliken, C. S., & Wilk, J. E. (2014). **PTSD treatment for soldiers after combat deployment: Low utilization of mental health care and reasons for dropout.** *Psychiatric Services, 65*, 997-1004. doi:10.1176/appi.ps.201300307 **Objective:** Limited data exist on the adequacy of treatment for posttraumatic stress disorder (PTSD) after combat deployment. This study assessed the percentage of soldiers in need of PTSD treatment, the percentage receiving minimally adequate care, and reasons for dropping out of care. **Methods:** Data came from two sources: a population-based cohort of 45,462 soldiers who completed the Post-Deployment Health Assessment and a cross-sectional survey of 2,420 infantry soldiers after returning from Afghanistan (75% response rate). **Results:** Of 4,674 cohort soldiers referred to mental health care at a military treatment facility, 75% followed up with this referral. However, of 2,230 soldiers who received a PTSD diagnosis within 90 days of return from Afghanistan, 22% had only one mental health care visit and 41% received minimally adequate care (eight or more encounters in 12 months). Of 229 surveyed soldiers who screened positive for PTSD (PTSD Checklist score ≥ 50), 48% reported receiving mental health treatment in the prior six months at any health care facility. Of those receiving treatment, the median number of visits in six months was four; 22% had only one visit, 52% received minimally adequate care (four or more visits in six months), and 24% dropped out of care. Reported reasons for dropout included soldiers feeling they could handle problems on their own, work interference, insufficient time with the mental health professional, stigma, treatment ineffectiveness, confidentiality concerns, or discomfort with how the professional interacted. **Conclusions:** Treatment reach for PTSD after deployment remains low to moderate, with a high percentage of soldiers not accessing care or not receiving adequate treatment. This study represents a call to action to validate interventions to improve treatment engagement and retention.

Holdsworth, E., Bowen, E., Brown, S., & Howat, D. (2014). **Client engagement in psychotherapeutic treatment and associations with client characteristics, therapist characteristics, and treatment factors.** *Clinical Psychology Review, 34*, 428-450. doi:10.1016/j.cpr.2014.06.004 Client engagement has been associated with positive psychotherapeutic outcomes, yet it is relatively under-theorized. The aims of this review were to establish how client engagement with psychotherapeutic interventions targeting psychological or behavioral change has been operationally defined and assessed, and the associated client characteristics, therapist

characteristic, and treatment factors. Seventy-nine studies were selected for review, revealing inconsistent definitions and assessments of engagement and a broad array of client characteristics and treatment factors investigated. Attendance was frequently used as a proxy for engagement, but may not be reliable. Participation or involvement in conjunction with homework compliance which reflects clients' efforts within and between sessions may more reliably reflect engagement. The findings of associations between client characteristics and engagement variables were equivocal, although clients' capacities to address their problems tended to be positively associated with engagement. Nearly all therapist characteristics, particularly therapists' interpersonal skills, and most treatment factors, particularly strengths-based approaches and the therapeutic relationship, were positively associated with engagement. A theory of engagement that characterizes the function and inter-relations of variables across different psychotherapeutic settings is needed.

Jakupcak, M., Hoerster, K. D., Blais, R. K., Malte, C. A., Hunt, S., & Seal, K. (2013). **Readiness for change predicts VA mental healthcare utilization among Iraq and Afghanistan war veterans.** *Journal of Traumatic Stress, 26*, 165-168. doi:10.1002/jts.21768

Many veterans present to Veteran Affairs (VA) care intending to seek mental health treatment for symptoms of posttraumatic stress disorder (PTSD), depression, and/or alcohol misuse, yet most subsequently underutilize mental health care. This study examined the association of readiness for change with outpatient VA mental health care utilization in 104 treatment-seeking Iraq and Afghanistan war veterans who screened positive for PTSD, depression, and/or alcohol misuse at intake. Multivariate analyses demonstrated that readiness for change assessed at intake was positively associated (Incident Rate Ratio [IRR] = 1.22) with prospective outpatient mental health care utilization with demographic factors, military characteristics, and mental health burden in the model. Results suggest that interventions that target readiness to change, such as motivational interviewing, may improve treatment utilization in veterans presenting for mental health care.

Kehle-Forbes, S. M., Meis, L. A., Spont, M. R., & Polusny, M. A. (2016). **Treatment initiation and dropout from prolonged exposure and cognitive processing therapy in a VA outpatient clinic.**

Psychological Trauma: Theory, Research, Practice, and Policy, 8, 107-114. doi:10.1037/tra0000065 Emerging data suggest that few veterans are initiating prolonged exposure (PE) and cognitive processing therapy (CPT) and dropout levels are high among those who do start the therapies. The goal of this study was to use a large sample of veterans seen in routine clinical care to 1) report the percent of eligible and referred veterans who (a) initiated PE/CPT, (b) dropped out of PE/CPT, (c) were early PE/CPT dropouts, 2) examine predictors of PE/CPT initiation, and 3) examine predictors of early and late PE/CPT dropout. We extracted data from the medical records of 427 veterans who were offered PE/CPT following an intake at a Veterans Health Administration (VHA) PTSD Clinical Team. Eighty-two percent ($n = 351$) of veterans initiated treatment by attending Session 1 of PE/CPT; among those veterans, 38.5% ($n = 135$) dropped out of treatment. About one quarter of veterans who dropped out were categorized as early dropouts (dropout before Session 3). No significant predictors of initiation were identified. Age was a significant predictor of treatment dropout; younger veterans were more likely to drop out of treatment than older veterans. Therapy type was also a significant predictor of dropout; veterans receiving PE were more likely to drop out late than

veterans receiving CPT. Findings demonstrate that dropout from PE/CPT is a serious problem and highlight the need for additional research that can guide the development of interventions to improve PE/CPT engagement and adherence.

Mittler, J. N., Martsof, G. R., Telenko, S. J., & Scanlon, D. P. (2013). **Making sense of "consumer engagement" initiatives to improve health and health care: A conceptual framework to guide policy and practice.** *Milbank Quarterly, 91*, 37-77. doi:10.1111/milq.12002

Context: Policymakers and practitioners continue to pursue initiatives designed to engage individuals in their health and health care despite discordant views and mixed evidence regarding the ability to cultivate greater individual engagement that improves Americans' health and well-being and helps manage health care costs. There is limited and mixed evidence regarding the value of different interventions. *Methods:* Based on our involvement in evaluating various community-based consumer engagement initiatives and a targeted literature review of models of behavior change, we identified the need for a framework to classify the universe of consumer engagement initiatives toward advancing policymakers' and practitioners' knowledge of their value and fit in various contexts. We developed a framework that expanded our conceptualization of consumer engagement, building on elements of two common models, the individually focused transtheoretical model of behavior and the broader, multilevel social ecological model. Finally, we applied this framework to one community's existing consumer engagement program. *Findings:* Consumer engagement in health and health care refers to the performance of specific behaviors ("engaged behaviors") and/or an individual's capacity and motivation to perform these behaviors ("activation"). These two dimensions are related but distinct and thus should be differentiated. The framework creates four classification schemas, by (1) targeted behavior types (self-management, health care encounter, shopping, and health behaviors) and by (2) individual, (3) group, and (4) community dimensions. Our example illustrates that the framework can systematically classify a variety of consumer engagement programs, and that this exercise and resulting characterization can provide a structured way to consider the program and how its components fit program goals both individually and collectively. *Conclusions:* Applying the framework could help advance the field by making policymakers and practitioners aware of the wide range of approaches, providing a structured way to organize and characterize interventions retrospectively, and helping them consider how they can meet the program's goals both individually and collectively.

Mott, J. M., Mondragon, S., Hundt, N. E., Beason-Smith, M., Grady, R. H., & Teng, E. J. (2014). **Characteristics of U.S. veterans who begin and complete prolonged exposure and cognitive processing therapy for PTSD.** *Journal of Traumatic Stress, 27*, 265-273.

doi:10.1002/jts.21927 This retrospective chart-review study examined patient-level correlates of initiation and completion of evidence-based psychotherapy (EBP) for posttraumatic stress disorder (PTSD) among treatment-seeking U.S. veterans. We identified all patients ($N = 796$) in a large Veterans Affairs PTSD and anxiety clinic who attended at least 1 individual psychotherapy appointment with 1 of 8 providers trained in EBP. Within this group, 91 patients (11.4%) began EBP (either Cognitive Processing Therapy or Prolonged Exposure) and 59 patients (7.9%) completed EBP. The medical records of all EBP patients ($n = 91$) and a provider-matched sample of patients who received another form of individual psychotherapy ($n = 66$) were

reviewed by 4 independent raters. Logistic regression analyses revealed that Iraq and Afghanistan veterans were less likely to begin EBP than veterans from other service eras, $OR = 0.48$, 95% $CI = [0.24, 0.94]$, and veterans who were service connected for PTSD were more likely than veterans without service connection to begin EBP, $OR = 2.33$, 95% $CI = [1.09, 5.03]$. Among those who began EBP, Iraq and Afghanistan veteran status, $OR = 0.09$, 95% $CI = [0.03, 0.30]$, and a history of psychiatric inpatient hospitalization, $OR = 0.13$, 95% $CI = [0.03, 0.54]$, were associated with decreased likelihood of EBP completion.

Mott, J. M., Stanley, M. A., Street, R. L., Grady, R. H., & Teng, E. J. (2014). **Increasing engagement in evidence-based PTSD treatment through shared decision-making: A pilot study.** *Military Medicine*, 179, 143-149. doi:10.7205/MILMED-D-13-00363 Within the Veterans Health Administration, post-traumatic stress disorder (PTSD) treatment decisions are left to the patient and provider, allowing substantial variability in the way treatment decisions are made. Theorized to increase treatment engagement, shared decision-making interventions provide a standardized framework for treatment decisions. This study sought to develop (phase 1) and pilot test the feasibility and potential effectiveness (phase 2) of a brief shared decision-making intervention to promote engagement in evidence-based PTSD treatment. An initial version of the intervention was developed and then modified according to stakeholder feedback. Participants in the pilot trial were 27 Iraq and Afghanistan Veterans recruited during an intake assessment at a Veterans Affairs PTSD clinic. Participants randomized to the intervention condition ($n = 13$) participated in a 30-minute shared decision-making session, whereas patients randomized to the usual care condition ($n = 14$) completed treatment planning during their intake appointment, per usual clinic procedures. Among the 20 study completers, a greater proportion of participants in the intervention condition preferred an evidence-based treatment and received an adequate (≥ 9 sessions) dose of psychotherapy. Results provide preliminary support for the feasibility and potential effectiveness of the intervention and suggest that larger-scale trials are warranted.

Murphy, R. T., Thompson, K. E., Murray, M., Rainey, Q., & Uddo, M. M. (2009). **Effect of a motivation enhancement intervention on veterans' engagement in PTSD treatment.** *Psychological Services*, 6, 264-278. doi:10.1037/a0017577 This study is the first randomized controlled trial of the posttraumatic stress disorder (PTSD) motivation enhancement (PME) Group, a brief intervention based on Motivational Interviewing and designed to enhance combat veterans' engagement in PTSD treatment by increasing awareness of the need to change PTSD-related problems. Outpatients in a year-long, group- and cognitive-behavioral therapy (CBT)-oriented Veterans Affairs PTSD treatment program were randomly assigned to 4 sessions of the PME Group ($n = 60$) or a Psychoeducation Group ($n = 54$) in the 2nd month of treatment. Hypotheses about the proposed impact of the PME Group on PTSD treatment engagement (i.e., readiness to change, perceived treatment relevance, and PTSD program attendance) were all supported, although predicted differences were not found on all measures. These results support the need to address readiness to change in combat-related PTSD treatment.

Reger, G. M., Hoffman, J., Riggs, D., Rothbaum, B. O., Ruzek, J., Holloway, K. M., & Kuhn, E. (2013). **The "PE coach" smartphone application: An innovative approach to improving implementation, fidelity, and homework adherence during prolonged exposure.** *Psychological Services*, 10, 342-349. doi:10.1037/a0032774

Prolonged exposure (PE) is an empirically supported treatment that is being disseminated broadly to providers in the Department of Veterans Affairs and Department of Defense. Innovative methods are needed to support the implementation, dissemination, and patient and provider adherence to PE. The PE Coach is a smartphone application (app) designed to mitigate barriers to PE implementation. PE Coach is installed on the patient's phone and includes a range of capabilities for use during the PE session and after each session to support the treatment. Functions include the ability to audio record treatment sessions onto the patient's device, to construct the in vivo hierarchy on the device, to record completed homework exercises, to review homework adherence, and to track symptom severity over time. The app also allows sessions and homework to be scheduled directly in the app, populating the device calendar with patient reminder notifications. In the final session, a visual display of symptom improvement and habituation to items on the in vivo hierarchy is presented. These capabilities may significantly improve convenience, provider implementation and adherence, and patient compliance with treatment. Future research is needed to test whether PE Coach is useful and effective.

Rosen, C. S., Azevedo, K. J., Tiet, Q. Q., Greene, C. J., Wood, A. E., Calhoun, P., . . . & Schnurr, P. P. (2017). **An RCT of effects of telephone care management on treatment adherence and clinical outcomes among veterans with PTSD.** *Psychiatric Services*, 68, 151-158. doi:10.1176/appi.ps.201600069 **Objective:** This study assessed whether adding telephone care management to usual outpatient mental health care improved treatment attendance, medication compliance, and clinical outcomes of veterans with posttraumatic stress disorder (PTSD). **Methods:** In a multisite randomized controlled trial, 358 veterans were assigned to either usual outpatient mental health treatment ($N=165$) or usual care plus twice-a-month telephone care management (TCM) and support in the first three months of treatment ($N=193$). Treatment utilization and medication refills were determined from U.S. Department of Veterans Affairs administrative data. PTSD, depression, quality of life, aggressive behavior, and substance use were assessed with self-report questionnaires at intake, four months, and 12 months. **Results:** Telephone care managers reached 95% of TCM participants ($N=182$), completing an average 5.1 of 6.0 planned telephone calls. During the three-month intervention period, TCM participants completed 43% more mental health visits ($M \pm SD = 5.9 \pm 6.8$) than did those in usual care (4.1 ± 4.2) (incident rate ratio = 1.36, $\chi^2 = 6.56$, $df = 1$, $p < .01$). Treatment visits in the nine-month follow-up period and medication refills did not differ by condition. Only 9% of participants were scheduled to receive evidence-based psychotherapy. Slopes of improvement in PTSD, depression, alcohol misuse, drug problems, aggressive behavior, and quality of life did not differ by condition or treatment attendance. **Conclusions:** TCM improved PTSD patients' treatment attendance but not their outcomes. TCM can enhance treatment engagement, but outcomes depend on the effectiveness of the treatments that patients receive.

Seal, K. H., Abadjian, L., McCamish, N., Shi, Y., Tarasovsky, G., & Weingardt, K. (2012). **A randomized controlled trial of telephone motivational interviewing to enhance mental health treatment engagement in Iraq and Afghanistan veterans.** *General Hospital Psychiatry*, 34, 450-459. doi:10.1016/j.genhosppsych.2012.04.007 **Objective:** To test the efficacy of telephone-administered motivational interviewing (MI) to enhance treatment engagement in Iraq and

Afghanistan veterans with mental health (MH) problems. *Method:* Between April 23, 2008, and February 25, 2011, 73 Iraq and Afghanistan veterans who screened positive for ≥ 1 MH problem(s) on telephone-administered psychometric assessment, but were not engaged in treatment, were randomized to either personalized referral for MH services and four sessions of telephone MI or standard referral and four neutral telephone check-in sessions (control) at baseline, 2, 4 and 8 weeks. Blinded assessment occurred at 8 and 16 weeks. *Results:* In intent-to-treat analyses, 62% assigned to telephone MI engaged in MH treatment compared to 26% of controls [relative risk (RR)=2.41, 95% confidence interval (CI)=1.33–4.37, $P=.004$], which represented a large effect size (Cohen's $h=0.74$). Participants in the MI group also demonstrated significantly greater retention in MH treatment than controls [MI mean visits (S.D.)=1.68 (2.73) and control mean visits (S.D.)=0.38 (0.81), incidence rate ratio (IRR)=4.36, 95% CI=1.96–9.68, $P<.001$], as well as significant reductions in stigma and marijuana use at 8 weeks ($P<.05$). *Conclusions:* Telephone MI enhances MH treatment engagement in Iraq and Afghanistan veterans with MH problems.

Spoont, M. R., Nelson, D. B., Murdoch, M., Rector, T., Sayer, N. A., Nugent, S., & Westermeyer, J. (2014). **Impact of treatment beliefs and social network encouragement on initiation of care by VA service users with PTSD.** *Psychiatric Services*, 65, 654–662. doi:10.1176/appi.ps.201200324 *Objectives:* Despite the U.S. Department of Veterans Affairs' (VA) expansion of mental health services to treat VA service users with posttraumatic stress disorder (PTSD), many with PTSD do not engage in treatment. Numerous studies suggest that beliefs about treatment and social network factors, such as encouragement to seek treatment by others, affect engagement; however, prospective studies examining these factors are largely absent in this population. This study sought to understand social and attitudinal factors influencing treatment initiation, which may help to inform outreach interventions for VA service users with PTSD. *Methods:* A prospective, national cohort study of mental health care use among veterans recently diagnosed as having PTSD ($N=7,645$) was undertaken. Data from self-administered surveys and administrative databases were analyzed to assess contributions of treatment-related beliefs and social network encouragement to subsequent mental health care use, after facility, demographic, need, and access factors were controlled. *Results:* After the analysis controlled for treatment need and accessibility, the odds of initiating mental health care were greater for veterans who believed that they needed help for PTSD or other emotional problems and those who were encouraged to seek help by friends and family. Beliefs about the effectiveness of PTSD treatments were associated with the type of treatment received. Negative illness identity was not a barrier to treatment initiation. *Conclusions:* VA service users' social networks, veterans' perceptions of their need for mental health care, and their beliefs about PTSD treatment effectiveness may be fruitful targets for future treatment engagement interventions.

Spoont, M. R., Nelson, D. B., Murdoch, M., Sayer, N. A., Nugent, S., Rector, T., & Westermeyer, J. (2015). **Are there racial/ethnic disparities in VA PTSD treatment retention?** *Depression and Anxiety*, 32, 415–425. doi:10.1002/da.22295 *Background:* Chronic posttraumatic stress disorder (PTSD) can result in significant social and physical impairments. Despite the Department of Veterans Affairs' (VA) expansion of mental health services into primary care clinics to

reach larger numbers of Veterans with PTSD, many do not receive sufficient treatment to clinically benefit. This study explored whether the odds of premature mental health treatment termination varies by patient race/ethnicity and, if so, whether such variation is associated with differential access to services or beliefs about mental health treatments. *Methods:* Prospective national cohort study of VA patients who were recently diagnosed with PTSD ($n=6,788$). Self-administered surveys and electronic VA databases were utilized to examine mental health treatment retention across racial/ethnic groups in the 6 months following the PTSD diagnosis controlling for treatment need, access factors, age, gender, treatment beliefs, and facility factors. *Results:* African American and Latino Veterans were less likely to receive a minimal trial of pharmacotherapy and African American Veterans were less likely to receive a minimal trial of any treatment in the 6 months after being diagnosed with PTSD. Controlling for beliefs about mental health treatments diminished the lower odds of pharmacotherapy retention among Latino but not African American Veterans. Access factors did not contribute to treatment retention disparities. *Conclusions:* Even in safety-net healthcare systems like VA, racial and ethnic disparities in mental health treatment occur. To improve treatment equity, clinicians may need to more directly address patients' treatment beliefs. More understanding is needed to address the treatment disparity for African American Veterans.

Yehuda, R., Bierer, L. M., Pratchett, L. C., Lehrner, A., Koch, E. C., Van Manen, J. A., . . . & Hildebrandt, T. (2015). **Cortisol augmentation of a psychological treatment for warfighters with posttraumatic stress disorder: Randomized trial showing improved treatment retention and outcome.** *Psychoneuroendocrinology*, 51, 589–597. doi:10.1016/j.psyneuen.2014.08.004 *Background:* Prolonged exposure (PE) therapy for post-traumatic stress disorder (PTSD) in military veterans has established efficacy, but is ineffective for a substantial number of patients. PE is also associated with high dropout rates. We hypothesized that hydrocortisone augmentation would enhance symptom improvement and reduce drop-out rates by diminishing the distressing effects of traumatic memories retrieved during imaginal exposure. We also hypothesized that in responders, hydrocortisone augmentation would be more effective in reversing glucocorticoid indices associated with PTSD than placebo augmentation. *Method:* Twenty-four veterans were randomized to receive either 30 mg oral hydrocortisone or placebo prior to PE sessions 3–10 in a double-blind protocol. Glucocorticoid receptorsensitivity was assessed in cultured peripheral blood mononuclear cells (PBMC) using the *in vitro* lysozyme inhibition test and was determined before and after treatment. Intent-to-treat analysis was performed using latent growth curve modeling of treatment effects on change in PTSD severity over time. Veterans who no longer met diagnostic criteria for PTSD at post-treatment were designated as responders. *Results:* Veterans randomized to hydrocortisone or placebo augmentation did not differ significantly in clinical severity or glucocorticoid sensitivity at pre-treatment. Hydrocortisone augmentation was associated with greater reduction in total PTSD symptoms compared to placebo, a finding that was explained by significantly greater patient retention in the hydrocortisone augmentation condition. A significant treatment condition by responder status interaction for glucocorticoid sensitivity indicated that responders to hydrocortisone augmentation had the highest pre-treatment glucocorticoid sensitivity (lowest lysozyme IC_{50-DEX}) that diminished over the course of treatment. There was a significant association

FEATURED ARTICLES *continued*

between decline in glucocorticoid responsiveness and improvement in PTSD symptoms among hydrocortisone recipients. **Conclusions:** The results of this pilot study suggest that hydrocortisone augmentation of PE may result in greater retention in treatment and thereby promote PTSD symptom improvement. Further, the results suggest that particularly elevated glucocorticoid responsiveness at pre-treatment may identify veterans likely to respond to PE combined with an intervention that targets glucocorticoid sensitivity. Confirmation of these findings will suggest that pharmacologic interventions that target PTSD-associated glucocorticoid dysregulation may be particularly helpful in promoting a positive clinical response to PTSD psychotherapy.

ADDITIONAL CITATIONS

Bryant, R. A., Moulds, M. L., Mastrodomenico, J., Hopwood, S., Felmingham, K., & Nixon, R. D. V. (2007). **Who drops out of treatment for post-traumatic stress disorder?** *Clinical Psychologist*, 11, 13-15. doi:10.1080/13284200601178128 This study examined pretreatment characteristics of civilian trauma survivors who remained in and dropped out of either cognitive behavioral therapy or supportive counseling for PTSD. Consistent with the authors' hypotheses, participants who reported more avoidance and catastrophic cognitions were more likely to drop out of treatment.

Carman, K. L., Dardess, P., Maurer, M., Sofaer, S., Adams, K., Bechtel, C., & Sweeney, J. (2013). **Patient and family engagement: A framework for understanding the elements and developing interventions and policies.** *Health Affairs*, 32, 223-231. doi:10.1377/hlthaff.2012.1133 The authors proposed a framework of patient engagement that considered a continuum of health and healthcare related engagement behaviors ranging from consultation to partnership, and a variety of levels of engagement across the healthcare system (direct care, organizational design and governance, and policy making). They present patient, organizational, and societal factors that may influence engagement.

Ehlers, A., Grey, N., Wild, J., Stott, R., Liness, S., Deale, A., . . . & Clark, D. M. (2013). **Implementation of cognitive therapy for PTSD in routine clinical care: Effectiveness and moderators of outcome in a consecutive sample.** *Behaviour Research and Therapy*, 51, 742-752. doi:10.1016/j.brat.2013.08.006 Through examining pre-and post-treatment symptomology for 330 consecutive patients, this study investigated whether Cognitive Therapy for PTSD (CT-PTSD) can be effectively implemented into a UK National Health Service Outpatient Clinic. CT-PTSD led to very large improvement in PTSD symptoms, depression and anxiety. Therapists who were inexperienced in CT-PTSD had more dropouts than those with greater experience.

Eliacin, J., Rollins, A. L., Burgess, D. J., Salyers, M. P., & Matthias, M. S. (2016). **Engaging African-American veterans in mental health care: Patients' perspectives.** *The Journal of Nervous and Mental Disease*, 204, 254-260. doi:10.1097/NMD.0000000000000479 This qualitative study explored African American Veterans with mental illness's perspectives of facilitators and barriers to engaging in outpatient mental health services. Participants reported that the patient factors of self-awareness, assertiveness, willingness to seek help, and leadership skills facilitated engagement. They also noted the importance of forming a human connection with their therapist.

ADDITIONAL CITATIONS *continued*

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.** *Professional Psychology: Research and Practice*, 46, 90-96. doi:10.1037/a0038535 In their examination of the implementation of PE and CPT in VA outpatient clinics, the authors discovered that participation in PE and CPT was preceded by a preparatory group in nearly all programs. Clinic directors perceived that the groups improved readiness for the treatments, helped Veterans make informed decisions about their treatment plans, improved coping skills and symptom management, and decreased the likelihood of PE and CPT no-shows. Despite a lack of evidence regarding the association between readiness and EBP engagement or data demonstrating the effectiveness of preparatory groups, the concept of readiness guided program development and flow through the programs.

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, 974-979. doi:10.1037/a0020758 During a 10-week RCT examining the efficacy of PE and sertraline in the treatment of PTSD, early therapeutic alliance was associated with PE adherence and overall treatment completion. Trauma-related social support, but not a history of childhood sexual abuse, was associated with early therapeutic alliance.

Norman, S. B., Wilkins, K. C., Tapert, S. F., Lang, A. J., & Najavits, L. M. (2010). **A pilot study of Seeking Safety therapy with OEF/OIF veterans.** *Journal of Psychoactive Drugs*, 42, 83-87. doi:10.1080/02791072.2010.10399788 This study reported outcomes for fourteen OEF/OIF Veterans with comorbid PTSD and substance use disorders who initiated a truncated version of Seeking Safety, a cognitive-behavioral psychotherapy for co-occurring PTSD and substance use disorder. The authors noted that the case management component of Seeking Safety may have increased Veterans' willingness to participate in EBPs for PTSD.

Spoont, M. R., Hodges, J., Murdoch, M., & Nugent, S. (2009). **Race and ethnicity as factors in mental health service use among veterans with PTSD.** *Journal of Traumatic Stress*, 22, 648-653. doi:10.1002/jts.20470 The authors conducted a retrospective cohort study using VA administrative data to determine rates of mental health care use and to examine whether the odds of service use varied by race or ethnicity among all Veterans with a new diagnosis of PTSD. Veteran race, but not Hispanic ethnicity, was associated with decreases in some measures of pharmacotherapy engagement and increases in some measures of psychotherapy engagement.

Spoont, M. R., Murdoch, M., Hodges, J., & Nugent, S. (2010). **Treatment receipt by veterans after a PTSD diagnosis in PTSD, mental health, or general medical clinics.** *Psychiatric Services*, 61, 58-63. doi:10.1176/ps.2010.61.1.58 This study examined outpatient treatment participation among Veterans with a recent PTSD diagnosis. Within six months of diagnosis, approximately two-thirds of the sample initiated PTSD treatment; 33% of the sample received a minimally adequate dose of either pharmacotherapy (at least four 30-day supplies) or counseling (at least eight visits). Those diagnosed in PTSD specialty programs were more likely to initiate and be retained in treatment than those diagnosed in a general medical clinic.

ADDITIONAL CITATIONS *continued*

Tetley, A., Jinks, M., Huband, N., & Howells, K. (2011). **A systematic review of measures of therapeutic engagement in psychosocial and psychological treatment.** *Journal of Clinical Psychology*, 67, 927-941. doi:10.1002/jclp.20811 The authors conducted a systematic review of engagement measures for psychosocial therapy. The findings suggested that although therapeutic engagement appears to be considered an important construct to assess, there is substantial variability in the definition of engagement across studies and additional work is needed to develop adequate measures of therapeutic engagement.

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Group Treatment for PTSD

Despite the rich history of group treatments for PTSD, there is a surprising lack of methodologically rigorous studies in this domain. We know that at one point, “rap groups” were seen to be the treatment of choice for Vietnam Veterans (Foy et al., 2000) and support groups still play a significant role in many agencies that serve trauma survivors, including Department of Veterans Affairs (VA) settings (Hundt, Robinson, Arney, Stanley, & Cully, 2015). Despite the popularity of support groups for trauma survivors, the group treatment research literature is characterized by open trial (e.g., Ready et al., 2008) or non-randomized designs (e.g., Resick & Schnicke, 1992), which are helpful in the beginning stages of treatment development. However, the number of randomized clinical trials (RCT) is limited. Consequently, there are currently no group treatments for PTSD recognized as evidence-based (e.g., VA & Department of Defense [DoD], 2010). In this article, we will summarize the current knowledge about group treatments for PTSD and highlight areas that deserve greater empirical focus.

Sloan, Feinstein, Gallagher, Beck, and Keane (2013) conducted a meta-analysis of RCTs of group treatment studies for PTSD. Studies were excluded if individual and group components were mixed within a protocol, resulting in 16 studies, with a total of 1,686 participants. Most of these treatments were cognitive behavioral, however, the content of these protocols varied considerably. Group treatment was found to have superior treatment outcome effects relative to wait list (WL). However, no significant differences were observed for cognitive behavioral group interventions relative to other active treatments (e.g., present centered treatment). Moderator analyses revealed smaller effect sizes for males relative to females and military-related and childhood trauma relative to mixed trauma samples. These findings should be interpreted with caution, given the small number of studies. Another important observation is that each of the 16 studies examined a different group treatment.

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Since this meta-analysis was published, only a handful of additional RCT group trials for PTSD have been published (e.g., Bass et al., 2013; Castillo et al., 2016; Morland et al., 2014; Resick et al., 2015). Clearly, this is an area ripe for needed study.

Trauma-focused Group Treatment for PTSD

Although the advancement of group treatment for PTSD has been limited by the lack of RCTs, there are a number of protocols that have promise and deserve further investigation. Examining group formats of currently available first-line individual PTSD treatment approaches (VA & DoD, 2010), such as Cognitive Processing Therapy (CPT) and Prolonged Exposure (PE), is one obvious path to pursue. In fact, the first efficacy study of Cognitive Processing Therapy (CPT) used a group format of the treatment (Resick & Schnicke, 1992). Several additional studies have been conducted with CPT administered in group format, with variations including a cognitive only version of CPT, referred to as CPT-cognitive only (CPT-C; Morland et al., 2014; Resick et al., 2015), group CPT-C modified for cultural considerations (Bass et al., 2013), and a combined individual and group format of CPT (Chard, 2005). Most recently, Resick and colleagues investigated the CPT-C group format relative to group present centered therapy (PCT) with a cohort of active duty service men and women diagnosed with military-related PTSD. Both group treatments consisted of 12, 90 minute sessions. Findings indicated significant reductions in PTSD severity for both conditions. A significant reduction was also observed for depression in the CPT-C only. Without inclusion of a no-treatment comparison, it is unknown whether significant reductions in PTSD are the result of treatment or other factors such as the passage of time or nonspecific group support.

Continued on page 2

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It should be noted that the group format of PCT has been found to be a moderately efficacious treatment in several group trial studies (Classen et al., 2011; Schnurr et al., 2003) and superior to a no treatment comparison condition (Classen et al., 2011). Thus, the limited number of studies using group formats of the first line PTSD treatments, combined with a lack of a no treatment comparison, limits interpretation of the Resick et al. (2015) findings.

Chard (2005) used a different approach to delivering CPT in a group format. In a study of women survivors of childhood sexual assault, Chard adapted the CPT protocol to include 27 sessions of group (17) and individual (9) sessions. Individual sessions were devoted to specifics of the individual event, including the trauma impact statement and trauma narratives. Group sessions were used to reinforce skills and concepts introduced in the individual sessions and to foster social bonds with other group members. Findings indicated significantly greater reductions of PTSD symptoms for the adapted CPT condition relative to a minimal attention (MA) comparison condition. Moreover, treatment gains for the adapted CPT condition were maintained at a one year follow-up. Given the various formats of group CPT that have been investigated, it is unclear at this time which format is the best to pursue for additional development.

Although there is a large literature demonstrating the efficacy and effectiveness of Prolonged Exposure (PE) therapy, there are no current studies investigating a group format of PE. Exposure is thought to be a critical component to effective PTSD treatment (e.g., Institute of Medicine, 2008), so inclusion of exposure within group treatment for PTSD is important. There is debate, however, about whether conducting trauma exposure within the group setting (rather than individually) is problematic, owing to vicarious traumatization of other members. There have been a number of group protocols that have used various approaches to conducting imaginal and/or *in vivo* exposures in the context of treatment. For example, Schnurr et al. (2003) examined the efficacy of a trauma-focused group treatment (TFGT) compared to group PCT for military-related PTSD. Both treatment conditions involved 30 weekly sessions lasting 90 minutes, although sessions that included exposure lasted two hours. Imaginal exposure was conducted within the group by Veterans taking turns recounting their trauma event while other members listened. Each Veteran had two sessions devoted to recounting their trauma event, with imaginal exposure sessions starting in session 9 through session 22. *In vivo* exposure was not included in the protocol. The time needed to conduct imaginal exposure within the group for each group member was extensive and may reduce the potential cost-effectiveness of the group format. Schnurr et al. attempted to make up for the limited time for in-session exposure through daily homework utilizing audiotapes. Findings indicated both groups had significant reductions in PTSD symptoms, with no between treatment differences. Significant between treatment differences were only observed for participants who completed treatment, with significantly greater reductions in TFGT relative to group PCT. Notably, treatment dropout was substantially higher in the TFGT (23%) relative to group PCT (9%). Although information was not collected regarding reasons for dropout, participants may have found exposures conducted in-session difficult to tolerate.

Ready and colleagues (2008) also conducted exposure in-session by adapting the approach used by Schnurr et al. (2003). In an open trial, these investigators examined the efficacy of group based exposure

therapy (GBET) among 102 Veterans. The group protocol consisted of 3 hours of treatment twice a week for 16-18 weeks. A minimum of 60 hours of exposure was included (3 hours of within group exposure per Veteran, 30 hours of listening to recordings of imaginal exposure, and 27 hours of hearing other Veterans' trauma accounts). Significant reductions in PTSD severity were observed. Notably, only three people dropped out of the group prematurely suggesting that the in-session exposures were well tolerated. It should be stated that the protocol included group members having lunch together, which likely facilitated group cohesion.

Castillo et al. (2016) used a similar approach to conducting imaginal exposure. In this study, group treatment consisted of 90 minute, 16 weekly sessions with only three women Veterans per group. Participants first completed a trauma narrative as homework. Each Veteran received four sessions of imaginal exposure, in which they read their narrative out loud in the group session. The protocol also included cognitive and skills components. The group size was limited to three members to permit the increased dose of imaginal exposure conducted in session. Relative to a WL comparison, participants in the trauma-focused group had significant reductions in PTSD severity at post-treatment, with treatment gains maintained at 6 month follow-up. This protocol differs from Schnurr et al. (2003) and Ready et al. (2008) with a less time treatment protocol. Treatment dropout rate was 24%.

Beck, Coffey, Foy, Keane, and Blanchard (2009) used a different approach to conducting exposure treatment in the group context. Rather than have group members recount their trauma accounts out loud in-session, group members are instructed to write their trauma narrative during session. The trauma narratives are conducted in two sessions. This approach has the advantage of efficient use of time as all group members are conducting imaginal exposure simultaneously. The approach also reduces the risk of triggering responses among fellow group members. In addition, the protocol, referred to as group cognitive behavioral treatment (GCBT), includes *in vivo* exposures conducted between sessions as homework. The protocol consists of 14, 2-hour sessions. Beck et al. found significant reductions in PTSD severity for GCBT relative to WL with a sample of adults who had motor vehicle-related PTSD. Treatment dropout rate was 27%. A study is currently underway to investigate the efficacy of GCBT relative to group PCT in a sample of Veterans diagnosed with PTSD (Sloan, Unger, & Beck, 2016).

Taking a similar approach to Chard (2005), Beidel, Frueh, Uhde, Wong, and Mentrakoski (2011) used a combination of group and individual treatment. This protocol, referred to as Trauma Management Therapy (TMT), combines exposure therapy and social emotional rehabilitation. The exposure component is conducted in the individual sessions, whereas the social emotional rehabilitation is conducted using the group format. TMT is based on strong empirical evidence favoring exposure therapy delivered individually, which it combines with group treatment to address social functioning, thereby providing a more comprehensive approach. In a sample of 35 Veterans who were randomly assigned to TMT or exposure therapy without group treatment, both conditions displayed significant reductions in PTSD with no between-group differences. As anticipated, the TMT condition had greater improvements in social functioning relative to exposure only. Treatment dropout for TMT was 22% relative to 6% in exposure only.

The higher dropout rate in TMT may be due to the greater time commitment involved in this treatment relative to the exposure only condition. Although replication is needed, this approach may be particularly appealing to trauma survivors who have deficits in social functioning.

To summarize, protocols for group treatment for PTSD have used different approaches to conduct exposure thought to be critical to successful treatment. Two studies have used a combined group and individual format (Beidel et al., 2011; Chard, 2005), whereas most studies have incorporated exposure-based techniques in the group context. However, the format used for imaginal exposure has varied, with most protocols asking group members to recount their trauma memory out loud while other group members listen. In contrast, Beck and colleagues (2009) had group members write their trauma account during session. Beck et al. and Castillo et al. (2016) also had a lower treatment dose than other treatments (Ready et al., 2008; Schnurr et al., 2003). Despite the dose differences, large within-group effect sizes were observed for PTSD symptom reduction and similar treatment dropout rates were reported across the studies. Thus, no single protocol appears superior to another in terms of outcome effects. The protocols used by Schnurr et al. (2003) and Ready et al. (2008) are fairly time intensive. Similarly, the time required for protocols that use a combination of individual and group formats is greater than the protocols used by Castillo et al. and Beck et al. Given the data reported so far, it may be most cost effective to use a group treatment that involves less time.

Group Protocols that Address Comorbid Conditions

Comorbid psychiatric conditions are common in PTSD, thus a number of group treatments have been developed to target comorbid conditions. One such example is Dunn and colleagues (2007) who tested the efficacy of self-management group treatment among a sample of 101 male Veterans diagnosed with chronic PTSD and depression. Self-management group therapy is designed to target depression and includes self-monitoring of positive activities and daily mood, goal setting and self-reinforcement for gains. Relative to a psychoeducation group treatment, Veterans assigned to self-management therapy showed a small reduction in depression symptoms at post-treatment. However, this reduction was no longer observed at the follow-up assessment. Moreover, no between group treatment differences were observed for PTSD outcome. It should also be noted that 33% of participants assigned to self-management group dropped out prematurely compared with 12% in the psychoeducation group.

Another approach to treating comorbid depression among individuals with PTSD is interpersonal therapy, which has been found to be efficacious in the treatment of depression. In an open trial study, Ray and Webster (2010) found significant reductions in PTSD and depression symptoms as well as improvements in interpersonal functioning following an interpersonal group treatment among a small sample of Vietnam Veterans. The interpersonal group treatment involved assessing dysfunctional relationship patterns, developing new social contacts, and re-establishing lost relationships. The group consisted of eight, 2-hour sessions. Cloitre and Koenen (2001) also found significant improvements in PTSD and depression symptoms for women who completed a 12-week interpersonal process group. However, no treatment gains were observed when groups included one or more members who had a diagnosis of borderline personality disorder.

Despite these promising findings for interpersonal therapy, there have been no additional studies of the efficacy of interpersonal group therapy for PTSD. Further investigation should be pursued in which a treatment comparison condition is included.

Seeking Safety (SS) is a well-known group treatment that targets a common comorbid condition in PTSD, substance use disorder. This treatment is a present-focused, coping skills approach that includes skills in distress tolerance and affect management. SS is frequently used in VA healthcare settings, yet efficacy findings for this treatment have been mixed. Early studies consisted of either an open trial design or a no treatment comparison condition. Findings from these studies demonstrated that SS reduces PTSD symptoms as well as substance use (for a review see, Najavits & Hein, 2013). However, more recent RCTs that have included an active treatment comparison condition (e.g., psychoeducation or treatment as usual), find significant within group effects for all treatment groups but no significant between group effects (Hien et al., 2009; Zlotnick, Johnson, & Najavits, 2009). It should also be noted that across studies, the effect sizes for PTSD symptom reduction tend to be larger than what has been observed for substance use, which may indicate that substance use is more difficult to treat (Najavits & Hien, 2013). Taken together, the findings to date do not indicate that SS is superior to other active group treatments, including psychoeducation. The continued popularity of SS may reflect the need for a treatment protocol that addresses PTSD and comorbid substance use combined as well as the limited availability of such protocols.

Human immunodeficiency virus (HIV) is another important comorbid condition among trauma survivors for which group treatment protocols have been developed. The rate of PTSD among individuals who are HIV positive is significantly higher than among the general population and those with PTSD tend to be less adherent to antiretroviral regimes, which can have fatal consequences (Beckerman & Auerbach, 2010). Thus, treatment of PTSD among HIV positive individuals is an important area to address. Sikkema et al. (2007) investigated the efficacy of a group treatment protocol designed to address trauma symptoms stemming from childhood sexual abuse among 202 HIV positive adults. The 15-session treatment uses a cognitive-behavioral model to address coping strategies for both sexual trauma and HIV infection. Significant reductions in PTSD symptoms were observed for the trauma and HIV coping treatment relative to a support group and a WL comparison conditions. No group differences were observed between the support group and the WL condition.

In light of considerable comorbidity, efforts to address PTSD in a group treatment setting are wise to incorporate therapeutic components that also focus on co-occurring psychiatric and physical health problems. As noted, the literature on group treatments targeting two conditions simultaneously is in its infancy. It is possible that as this literature grows, we will have a clearer idea of whether treatments that address comorbid conditions are more efficacious, relative to interventions that target PTSD alone. While efficacy may be equal between these two types of group treatments, one can wonder whether other dimensions of difference may appear. For instance, patients may prefer group treatments that target both PTSD and a co-occurring issue such as depression, as this type of approach may better address their concerns. Similarly, patients may be less likely to drop out of treatment that they believe is addressing their needs.

Limitations of the Literature and Future Directions

As noted, a number of limitations exist in the literature on group PTSD treatment. It is salient that many forms of group PTSD treatment have been developed, each with one, perhaps two, supportive studies. This diversity in treatment protocols and relative lack of supportive data from independent replications of these studies limits knowledge that can be gained and has led to the lack of an evidence-based group treatment approach for PTSD (Institute of Medicine, 2008; VA & DoD, 2010). Moreover, many extant studies are under-powered and fail to consider dependencies among participants. As discussed by Baldwin, Murray, and Shadish (2005), when treatments are conducted in a group, participants within each group share the specific group environment, leading to a lack of independence of observations. Analytic approaches need to account for the group clustering effect, a feature largely missing from the literature (Sloan et al., 2013). Exceptions are clearly present. For example, Schnurr et al. (2003) did their analyses by regarding the group as the unit rather than each patient as the unit. However, this methodological feature is unusual in this literature, at present. Clearly, the literature on group treatment of PTSD has room for growth, building on the most promising treatment approaches. As this literature evolves, greater attention is needed to methodological sophistication. Determination of cost-effectiveness and patient acceptability of group treatment would be a welcomed addition, particularly in comparison to individual approaches. With increased treatment demands and greater attention to patient-centered services, group treatments for PTSD need a more solid empirical foundation.

References

Department of Veterans Affairs & Department of Defense. (2010). *VA/DoD clinical practice guideline for management of post-traumatic stress*. Retrieved from <http://www.healthquality.va.gov/guidelines/MH/ptsd/cpgPTSDFULL201011612c.pdf>

Institute of Medicine. (2008). *Treatment of posttraumatic stress disorder: An assessment of the evidence*. Washington, DC: National Academies Press.

FEATURED ARTICLES

Baldwin, S. A., Murray, D. M., & Shadish, W. R. (2005). **Empirically supported treatments or Type I errors? Problems with the analysis of data from group-administered treatments.** *Journal of Consulting and Clinical Psychology, 73*, 924-935. doi:10.1037/0022-006X.73.5.924 When treatments are administered in groups, clients interact in ways that lead to violations of a key assumption of most statistical analyses—the assumption of independence of observations. The resulting dependencies, when not properly accounted for, can increase Type I errors dramatically. Of the 33 studies of group-administered treatment on the empirically supported treatments list, none appropriately analyzed their data. The current authors provide corrections that can be applied to improper analyses. After the corrections, only 12.4% to 68.2% of tests that were originally reported as significant remained significant, depending on what assumptions were made about how large the dependencies among observations really are.

FEATURED ARTICLES *continued*

Of the 33 studies, 6–19 studies no longer had any significant results after correction. The authors end by providing recommendations for researchers planning group-administered treatment research.

Bass, J. K., Annan, J., Mclvor Murry, S., Kaysen, D., Griffiths, S., Cetinoglu, T., . . . Bolton, P. A. (2013). **Controlled trial of psychotherapy for Congolese survivors of sexual violence.** *New England Journal of Medicine, 368*, 2182-2191. doi:10.1056/NEJMoa1211853 *Background:* Survivors of sexual violence have high rates of depression, anxiety, and post-traumatic stress disorder (PTSD). Although treatment for symptoms related to sexual violence has been shown to be effective in high-income countries, evidence is lacking in low-income, conflict-affected countries. *Methods:* In this trial in the Democratic Republic of Congo, we randomly assigned 16 villages to provide cognitive processing therapy (1 individual session and 11 group sessions) or individual support to female sexual-violence survivors with high levels of PTSD symptoms and combined depression and anxiety symptoms. One village was excluded owing to concern about the competency of the psychosocial assistant, resulting in 7 villages that provided therapy (157 women) and 8 villages that provided individual support (248 women). Assessments of combined depression and anxiety symptoms (average score on the Hopkins Symptom Checklist [range, 0 to 3, with higher scores indicating worse symptoms]), PTSD symptoms (average score on the Harvard Trauma Questionnaire [range, 0 to 3, with higher scores indicating worse symptoms]), and functional impairment (average score across 20 tasks [range, 0 to 4, with higher scores indicating greater impairment]) were performed at baseline, at the end of treatment, and 6 months after treatment ended. *Results:* A total of 65% of participants in the therapy group and 52% of participants in the individual- support group completed all three assessments. Mean scores for combined depression and anxiety improved in the individual-support group (2.2 at baseline, 1.7 at the end of treatment, and 1.5 at 6 months after treatment), but improvements were significantly greater in the therapy group (2.0 at baseline, 0.8 at the end of treatment, and 0.7 at 6 months after treatment) ($P < 0.001$ for all comparisons). Similar patterns were observed for PTSD and functional impairment. At 6 months after treatment, 9% of participants in the therapy group and 42% of participants in the individual-support group met criteria for probable depression or anxiety ($P < 0.001$), with similar results for PTSD. *Conclusions:* In this study of sexual-violence survivors in a low-income, conflict-affected country, group psychotherapy reduced PTSD symptoms and combined depression and anxiety symptoms and improved functioning.

Beck, J. G., Coffey, S. F., Foy, D. W., Keane, T. M., & Blanchard, E. B. (2009). **Group cognitive behavior therapy for chronic posttraumatic stress disorder: An initial randomized pilot study.** *Behavior Therapy, 40*, 82-92. doi:10.1016/j.beth.2008.01.003 Individuals with posttraumatic stress disorder (PTSD) related to a serious motor vehicle accident were randomly assigned to either group cognitive behavioral treatment (GCBT) or a minimum contact comparison group (MCC). Compared to the MCC participants ($n = 16$), individuals who completed GCBT ($n = 17$) showed significant reductions in PTSD symptoms, whether assessed using clinical interview or a self-report measure. Among treatment completers, 88.3% of GCBT participants did not satisfy criteria for PTSD at posttreatment assessment, relative to 31.3% of the MCC participants. Examination of anxiety, depression, and pain measures did not show a unique advantage of GCBT. Treatment-related gains were maintained over a 3-month

follow-up interval. Patients reported satisfaction with GCBT, and attrition from this treatment was comparable with individually administered CBTs. Results are discussed in light of modifications necessitated by the group treatment format, with suggestions for future study of this group intervention.

Beckerman, N. L., & Auerbach, C. (2010). **Post-traumatic stress disorder and HIV: A snapshot of co-occurrence.** *Social Work in Health Care, 49*, 687-702. doi:10.1080/00981389.2010.485089

Although the medical advances in the area of human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) have undoubtedly improved the length and quality of life for those who are HIV-affected and medication adherent, there are still many psychosocial obstacles to effective HIV/AIDS medication adherence. Recent research has focused on one such obstacle. The significant link between post-traumatic stress disorder (PTSD) and HIV. This article reports on the nature of this relationship with a cross-sectional study of active clients ($n = 186$) who were receiving HIV services from community-based settings in the New York City area. With the use of the PTSD Checklist (PCL), this study determined that more than half of the sample tested positively for PTSD. Policy and clinical implications of this and other findings are discussed.

Beidel, D. C., Frueh, B. C., Uhde, T. W., Wong, N., & MENTRIKOSKI, J. M. (2011). **Multicomponent behavioral treatment for chronic combat-related posttraumatic stress disorder: A randomized controlled trial.** *Journal of Anxiety Disorders, 25*, 224-231. doi:10.1016/j.janxdis.2010.09.006

This study examined the efficacy of a multicomponent cognitive-behavioral therapy, Trauma Management Therapy, which combines exposure therapy and social emotional rehabilitation, to exposure therapy only in a group of male combat veterans with chronic posttraumatic stress disorder (PTSD). Thirty-five male Vietnam veterans with PTSD were randomly assigned to receive either Trauma Management Therapy (TMT) or Exposure Therapy Only (EXP). Participants were assessed at pre-treatment, mid-treatment, and post-treatment. Primary clinical outcomes were reduction of PTSD symptoms and improved social emotional functioning. Results indicated that veterans in both conditions showed statistically significant and clinically meaningful reductions in PTSD symptoms from pre- to post-treatment, though consistent with a priori hypotheses there were no group differences on PTSD variables. However, compared to the EXP group, participants in the TMT group showed increased frequency in social activities and greater time spent in social activities. These changes occurred from mid-treatment (after completion of exposure therapy) to post-treatment (after completion of the social emotional rehabilitation component); supporting the hypothesis that TMT alone would result in improved social functioning. Although the TMT group also had a significant decrease in episodes of physical rage, that change occurred prior to introduction of the social emotional component of TMT. This study demonstrates efficacy of exposure therapy for treating the core symptoms of PTSD among combat veterans with a severe and chronic form of this disorder. Moreover, multi-component CBT shows promise for improving social functioning beyond that provided by exposure therapy alone, particularly by increasing social engagement/interpersonal functioning in a cohort of veterans with severe and chronic PTSD.

Castillo, D. T., Chee, C. L., Nason, E., Keller, J., C'de Baca, J., Qualls, C., ... Keane, T. M. (2016). **Group-delivered cognitive/exposure therapy for PTSD in women veterans: A randomized controlled trial.** *Psychological Trauma: Theory, Research, Practice, and Policy, 8*, 404-412. doi:10.1037/tra0000111 *Objective:* Group delivery of posttraumatic stress disorder (PTSD) treatment has several advantages, however group research is not comparable to individual trials. This study extends the group literature by improving methodology in examining the efficacy of a 3-module (cognitive, exposure, skills) group treatment for PTSD, establishes a format for the delivery of group exposure therapy, and compares 3 treatment modules within the group. *Method:* Eighty-six Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF) women veterans were randomized to a 16-week, 3-member group treatment (Tx) or a waitlist (WL) condition. The primary (Clinician Administered PTSD Scale [CAPS]) and secondary (Medical Outcomes Study Short Form-36 [SF-36], Quality of Life Inventory [QOLI], and PTSD Checklist [PCL]) outcome measures were administered at baseline, post Tx/WL, and at 3- and 6-months post Tx (PCL additionally at pre/post for each treatment module). *Results:* PTSD symptoms significantly improved in Tx arm participants ($p < .001$, ES = 1.72; unit of analysis group: $n = 14$), as did mental and physical life functioning (SF-36; $p < .001$), and quality of life (QOLI; $p < .001$). The WL significantly improved on the SF-36 (mental; $p = .04$) and QOLI ($p = .02$). Clinical improvement (CAPS) in the Tx arm reflected a treatment response (≥ 10 -point decrease) in 77% and loss of PTSD diagnosis (< 45) in 52% of participants, comparable to individual prolonged exposure (PE) treatment. Finally, PCL scores significantly lowered in exposure and cognitive modules. *Conclusions:* This study supports the use of group format for PTSD with 3 modules using improved methodology, with a novel, 3-member group which allows repeated in-session weekly imaginal exposures. The results suggest future examination of group delivered PE.

Chard, K. M. (2005). **An evaluation of cognitive processing therapy for the treatment of posttraumatic stress disorder related to childhood sexual abuse.** *Journal of Consulting and Clinical Psychology, 73*, 965-971. doi:10.1037/0022-006X.73.5.965 This study compared the effectiveness of cognitive processing therapy for sexual abuse survivors (CPT-SA) with that of the minimal attention (MA) given to a wait-listed control group. Seventy-one women were randomly assigned to 1 of the 2 groups. Participants were assessed at pretreatment and 3 times during posttreatment: immediately after treatment and at 3-month and 1-year follow-up, using the Clinician-Administered posttraumatic stress disorder (PTSD) Scale (D. Blake et al., 1995), the Beck Depression Inventory (A. T. Beck, R. A. Steer, & G. K. Brown, 1996), the Structured Clinical Interview for the DSM-IV (R. L. Spitzer, J. B. W. Williams, & M. Gibbon, 1995; M. B. First et al., 1995), the Dissociative Experiences Scale-II (E. M. Bernstein & F. W. Putnam, 1986), and the Modified PTSD Symptom Scale (S. A. Falsetti, H. S. Resnick, P. A. Resick, & D. G. Kilpatrick, 1993). Analyses suggested that CPT-SA is more effective for reducing trauma-related symptoms than is MA, and the results were maintained for at least 1 year.

Classen, C. C., Palesh, O. G., Cavanaugh, C. E., Koopman, C., Kaupp, J. W., Kraemer, H. C., . . . Spiegel, D. (2011). **A comparison of trauma-focused and present-focused group therapy for survivors of childhood sexual abuse: A randomized controlled trial.** *Psychological Trauma: Theory, Research, Practice, and Policy*, 3, 84-93. doi:10.1037/a0020096 This randomized controlled trial compared trauma-focused group psychotherapy (TFGT) with present-focused group psychotherapy (PFGT) and a waitlist condition for 166 survivors of childhood sexual abuse who were at risk for HIV infection. Primary outcomes included risk for HIV infection (based on sexual revictimization, drug and alcohol use, and risky sex) and posttraumatic stress disorder (PTSD) symptoms. It was hypothesized that TFGT would be superior to the PFGT and waitlist conditions and that receiving either treatment (combining both TFGT and PFGT) would be superior to no treatment (waitlist condition). Intention-to-treat analyses for HIV risk found that all conditions reduced risk; however, there was no effect for condition on HIV risk. Intention-to-treat analyses for PTSD symptoms found a reduction for all conditions. There was no advantage for either TFGT or PFGT in reducing PTSD symptoms; however, there was an effect for treatment compared with the waitlist condition. On secondary outcomes, there was a greater reduction in anger for TFGT compared with PFGT, and when comparing treatment with the waitlist condition, there was a greater reduction in hyperarousal, reexperiencing, anger, and impaired self-reference for the treatment condition. Adequate dose analyses generally confirmed the intention-to-treat findings and additionally found that treatment led to reductions in depression, dissociation, and sexual concerns.

Cloitre, M., & Koenen, K. C. (2001). **The impact of borderline personality disorder on process group outcome among women with posttraumatic stress disorder related to childhood abuse.** *International Journal of Group Psychotherapy*, 51, 379-398. doi:10.1521/ijgp.51.3.379.49886 The outcome of a 12-week interpersonal process group therapy for women with posttraumatic stress disorder (PTSD) related to childhood sexual abuse with and without borderline personality disorder (BPD) was assessed by comparing three naturally occurring treatment conditions: groups that did not have any members with borderline personality disorder (BPD-) ($n = 18$), groups in which at least one member carried the diagnosis (BPD+)($n = 16$), and a 12-week waitlist (WL) ($n = 15$). PTSD, anger, depression, and other symptoms were significantly reduced in the BPD- groups. However, the BPD+ and WL conditions did not show any pre- to posttreatment improvements. Furthermore, the BPD+ condition showed a significant worsening on measures of anger. Analyses within the BPD+ condition indicated that women with and without the diagnosis experienced equal posttreatment increases in anger problems. These latter results suggest the presence of an anger "contagion" effect. That is, women without BPD did well in the BPD- groups but showed increased anger similar to the BPD+ women when treated in groups with them. Implications for client-treatment matching considerations in PTSD group therapy are discussed.

Dunn, N. J., Rehm, L. P., Schillaci, J., Soucek, J., Mehta, P., Ashton, C. M., . . . & Hamilton, J. D. (2007). **A randomized trial of self-management and psychoeducational group therapies for comorbid chronic posttraumatic stress disorder and depressive disorder.** *Journal of Traumatic Stress*, 20, 221-237. doi:10.1002/jts.20214 The authors randomized 101 male veterans with chronic combat-related posttraumatic stress disorder (PTSD) and depressive disorder to an evidence-based depression treatment (self-management therapy; $n = 51$) or active-control therapy ($n = 50$). Main outcome measures for efficacy, using intention-to-treat analyses, were subjective and objective PTSD and depression scales at pretest, posttest, and 3-, 6-, and 12-month follow-up. Other measures included treatment compliance, satisfaction, treatment-targeted constructs, functioning, service utilization, and costs. Self-management therapy's modestly greater improvement on depression symptoms at treatment completion disappeared on follow-up. No other differences on symptoms or functioning appeared, although psychiatric outpatient utilization and overall outpatient costs were lower with self-management therapy. Despite success in other depressed populations, self-management therapy produced no clinically significant effect in depression with chronic PTSD.

Foy, D. W., Glynn S. M., Schnurr, P. P., Jankowski, M. K., Wattenberg, M. S., Weiss, D. S., . . . Gusman, F. D. (2000). Group therapy. In E. Foa, T. Keane, & M. Friedman (Eds.), *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (pp. 155-175). New York: Guilford Press. Group therapy for posttraumatic stress disorder (PTSD) offers cohesion, encouragement, and support from other members in either "covering" or "uncovering" formats, referring to whether or not traumatic experiences are addressed directly. Representative of the covering format is supportive group therapy, and of uncovering format are psychodynamic groups and cognitive-behavioral therapy. Group treatment for PTSD is recommended as potentially effective based upon consistent positive evidence from 14 recent studies. The course of treatment involving group therapy is described, as well as clinical recommendations.

Hien, D. A., Wells, E. A., Jiang, H., Suarez-Morales, L., Campbell, A. N. C., Cohen, L. R., . . . Nunes, E. V. (2009). **Multisite randomized trial of behavioral interventions for women with co-occurring PTSD and substance use disorders.** *Journal of Consulting and Clinical Psychology*, 77, 607-619. doi:10.1037/a0016227 The authors compared the effectiveness of the Seeking Safety group, cognitive-behavioral treatment for substance use disorder and posttraumatic stress disorder (PTSD), to an active comparison health education group (Women's Health Education [WHE]) within the National Institute on Drug Abuse's Clinical Trials Network. The authors randomized 353 women to receive 12 sessions of Seeking Safety ($M = 6.2$ sessions) or WHE ($M = 6.0$ sessions) with follow-up assessment 1 week and 3, 6, and 12 months posttreatment. Primary outcomes were the Clinician Administered PTSD Scale (CAPS), the PTSD Symptom Scale-Self Report (PSS-SR), and a substance use inventory (self-reported abstinence and percentage of days of use over 7 days). Intention-to-treat analysis showed large, clinically significant reductions in CAPS and PSS-SR symptoms ($d = 1.94$ and 1.12 , respectively) but no reliable difference between conditions. Substance use outcomes were not significantly different over time between the two treatments and at follow-up showed no significant

change from baseline. Study results do not favor Seeking Safety over WHE as an adjunct to substance use disorder treatment for women with PTSD and reflect considerable opportunity to improve clinical outcomes in community-based treatments for these co-occurring conditions.

Hundt, N. E., Robinson, A., Arney, J., Stanley, M. A., & Cully, J. A. (2015). **Veterans' perspectives on benefits and drawbacks of peer support for posttraumatic stress disorder.** *Military Medicine*, 180, 851-856. doi:10.7205/MILMED-D-14-00536 Peer support has been increasingly utilized within the Department of Veterans Affairs and offers an opportunity to augment existing care for posttraumatic stress disorder (PTSD). The current study sought to examine veterans' perspectives on the potential benefits and drawbacks of peer support for PTSD. A sample of 23 veterans with substantial treatment experience completed one-time qualitative interviews that were transcribed and coded for thematic content using grounded theory methodology. Results indicated that veterans identified numerous potential benefits to a peer support program, including social support, purpose and meaning, normalization of symptoms and hope, and therapeutic benefits. Veterans also identified ways that peer support could complement psychotherapy for PTSD by increasing initiation and adherence to treatment and supporting continued use of skills after termination. Results also indicated that veterans may prefer peer support groups that are separated according to trauma type, gender, and era of service. Other findings highlighted the importance of the leadership and interpersonal skills of a peer support group leader. Overall, veterans found peer support to be a highly acceptable complement to existing PTSD treatments with few drawbacks.

Morland, L. A., Mackintosh, M. A., Greene, C. J., Rosen, C. S., Chard, K. M., Resick, P., & Frueh, B. C. (2014). **Cognitive processing therapy for posttraumatic stress disorder delivered to rural veterans via telemental health: A randomized noninferiority clinical trial.** *Journal of Clinical Psychiatry*, 75, 470-476. doi:10.4088/JCP.13m08842 **Objective:** To compare clinical and process outcomes of cognitive processing therapy-cognitive only version (CPTC) delivered via videoteleconferencing (VTC) to in-person in a rural, ethnically diverse sample of veterans with posttraumatic stress disorder (PTSD). **Method:** A randomized clinical trial with a noninferiority design was used to determine if providing CPT-C via VTC is effective and "as good as" in-person delivery. The study took place between March 2009 and June 2013. PTSD was diagnosed per *DSM-IV*. Participants received 12 sessions of CPT-C via VTC ($n = 61$) or in-person ($n = 64$). Assessments were administered at baseline, midtreatment, immediately posttreatment, and 3 and 6 months posttreatment. The primary clinical outcome was posttreatment PTSD severity, as measured by the Clinician-Administered PTSD Scale. **Results:** Clinical and process outcomes found VTC to be noninferior to in-person treatment. Significant reductions in PTSD symptoms were identified at posttreatment (Cohen $d = 0.78$, $P < .05$) and maintained at 3- and 6-month follow-up ($d = 0.73$, $P < .05$ and $d = 0.76$, $P < .05$, respectively). High levels of therapeutic alliance, treatment compliance, and satisfaction and moderate levels of treatment expectancies were reported, with no differences between groups (for all comparisons, $F < 1.9$, $P > .17$). **Conclusions:** Providing CPT-C to rural residents with PTSD via VTC produced outcomes that were "as good as" in-person treatment. All participants demonstrated significant reductions in PTSD symptoms

posttreatment and at follow-up. Results indicate that VTC can offer increased access to specialty mental health care for residents of rural or remote areas.

Najavits, L. M., & Hien, D. (2013). **Helping vulnerable populations: A comprehensive review of the treatment outcome literature on substance use disorder and PTSD.** *Journal of Clinical Psychology*, 69, 433-479. doi:10.1002/jclp.21980 We review treatment studies for comorbid substance use disorder (SUD) and posttraumatic stress disorder (PTSD). Results show positive outcomes on multiple domains. Most models had more effect on PTSD than SUD, suggesting SUD is harder to treat. Seeking Safety (SS) is the most studied model. It shows positive outcomes, and is the only treatment outperforming a control on both PTSD and SUD. Partial-dose SS had more mixed results than the full dose. This first-generation of PTSD/SUD research addresses complex samples excluded from "gold standard" PTSD-alone literature. Treatments for PTSD/SUD are generally longer than PTSD-alone treatments and present-focused, emphasizing stabilization and coping. The few models with past-focused (exposure-based) components also incorporated present-focused approaches for these vulnerable clients. We discuss public health perspectives to advance the field.

Ray, R. D., & Webster, R. (2010). **Group interpersonal psychotherapy for veterans with posttraumatic stress disorder: A pilot study.** *International Journal of Group Psychotherapy*, 60, 131-140. doi:10.1521/ijgp.2010.60.1.131 Group-based interpersonal psychotherapy (IPT-G) was provided to nine male Vietnam veterans with posttraumatic stress disorder (PTSD) to reduce interpersonal difficulties. Standardized measures of posttraumatic stress, depression, interpersonal problems, and functioning were administered pre- and posttreatment and at 2- and 4-month follow-ups. Individual (reliable change indices) and group analyses (repeated measures ANOVAs) indicated improvements in interpersonal and global functioning (not maintained at follow-up), as well as for PTSD and depressive symptoms (maintained at follow-up). Qualitative feedback indicated reduced levels of anger and stress as well as improved relationships. IPT-G for Vietnam veterans shows promise in improving interpersonal functioning and reducing psychological distress. However, since not all improvements were maintained over time, future studies may need to explore relapse prevention strategies.

Ready, D. J., Thomas, K. R., Worley, V., Backscheider, A. G., Harvey, L. A. C., Baltzell, D., & Rothbaum, B. O. (2008). **A field test of group based exposure therapy with 102 veterans with war-related posttraumatic stress disorder.** *Journal of Traumatic Stress*, 21, 150-157. doi:10.1002/its.20326 Group-based exposure therapy (GBET) was field-tested with 102 veterans with war-related posttraumatic stress disorder. Nine to 11 patients attended 3 hours of group therapy per day twice weekly for 16-18 weeks. Stress management and a minimum of 60 hours of exposure was included (3 hours of within-group war-trauma presentations per patient, 30 hours of listening to recordings of own war-trauma presentations and 27 hours of hearing other war-trauma presentations). Analysis of assessments conducted by treating clinicians pre-, post- and 6-month posttreatment suggests that GBET produced clinically significant and lasting reductions in PTSD symptoms for most patients on both clinician symptoms ratings (6-month posttreatment effect size $\delta = 1.22$) and self-report measures with only three dropouts.

Resick, P. A., & Schnicke, M. K. (1992). **Cognitive processing therapy for sexual assault victims.** *Journal of Consulting and Clinical Psychology, 60*, 748-756. doi:10.1037/0022-006X.60.5.748

Cognitive processing therapy (CPT) was developed to treat the symptoms of posttraumatic stress disorder (PTSD) in rape victims. CPT is based on an information processing theory of PTSD and includes education, exposure, and cognitive components. Nineteen sexual assault survivors received CPT, which consists of 12 weekly sessions in a group format. They were assessed at pretreatment, posttreatment, and 3- and 6-month follow-up. CPT subjects were compared with a 20-subject comparison sample, drawn from the same pool who waited for group therapy for at least 12 weeks. CPT subjects improved significantly from pre- to posttreatment on both PTSD and depression measures and maintained their improvement for 6 months. The comparison sample did not change from the pre- to the posttreatment assessment sessions.

Resick, P. A., Wachen, J. S., Mintz, J., Young-McCaughan, S., Roache, J. D., Borah, A. M., ... Peterson, A. L. (2015). **A randomized clinical trial of group cognitive processing therapy compared with group present-centered therapy for PTSD among active duty military personnel.** *Journal of Consulting and Clinical Psychology, 83*, 1058-1068. doi:10.1037/ccp0000016 **Objective:** To determine whether group therapy improves symptoms of posttraumatic stress disorder (PTSD), this randomized clinical trial compared efficacy of group cognitive processing therapy (cognitive only version; CPT-C) with group present-centered therapy (PCT) for active duty military personnel. **Method:** Patients attended 90-min groups twice weekly for 6 weeks at Fort Hood, Texas. Independent assessments were administered at baseline, weekly before sessions, and 2 weeks, 6 months, and 12 months posttreatment. A total of 108 service members (100 men, 8 women) were randomized. Inclusion criteria included PTSD following military deployment and medication stability. Exclusion criteria included suicidal/homicidal intent or other severe mental disorders requiring immediate treatment. Follow-up assessments were administered regardless of treatment completion. Primary outcome measures were the PTSD Checklist (Stressor Specific Version; PCL-S) and Beck Depression Inventory-II. The Posttraumatic Stress Symptom Interview (PSS-1) was a secondary measure. **Results:** Both treatments resulted in large reductions in PTSD severity, but improvement was greater in CPT-C. CPT-C also reduced depression, with gains remaining during follow-up. In PCT, depression only improved between baseline and before Session 1. There were few adverse events associated with either treatment. **Conclusions:** Both CPT-C and PCT were tolerated well and reduced PTSD symptoms in group format, but only CPT-C improved depression. This study has public policy implications because of the number of active military needing PTSD treatment, and demonstrates that group format of treatment of PTSD results in significant improvement and is well tolerated. Group therapy may an important format in settings in which therapists are limited.

Schnurr, P. P., Friedman, M. J., Foy, D. W., Shea, M. T., Hsieh, F. Y., Lavori, P. W., ... Bernardy, N. C. (2003). **Randomized trial of trauma-focused group therapy for posttraumatic stress disorder: Results from a Department of Veterans Affairs cooperative study.**

Archives of General Psychiatry, 60, 481-489. doi:10.1001/archpsyc.60.5.481 **Background:** Department of Veterans Affairs Cooperative Study 420 is a randomized clinical trial of 2 methods of group psychotherapy for treating posttraumatic stress disorder (PTSD) in male Vietnam veterans. **Methods:** Vietnam veterans (360 men) were randomly assigned to receive trauma-focused group psychotherapy or a present-centered comparison treatment that avoided trauma focus. Treatment was provided weekly to groups of 6 members for 30 weeks, followed by 5 monthly booster sessions. Severity of PTSD was the primary outcome. Additional measures were other psychiatric symptoms, functional status, quality of life, physical health, and service utilization. Follow-up assessments were conducted at the end of treatment (7 months) and at the end of the booster sessions (12 months); 325 individuals participated in 1 or both assessments. Additional follow-up for PTSD severity was performed in a subset of participants at 18 and 24 months. **Results:** Although posttreatment assessments of PTSD severity and other measures were significantly improved from baseline, intention-to-treat analyses found no overall differences between therapy groups on any outcome. Analyses of data from participants who received an adequate dose of treatment suggested that trauma-focused group therapy reduced avoidance and numbing and, possibly, PTSD symptoms. Dropout from treatment was higher in trauma-focused group treatment. Average improvement was modest in both treatments, although approximately 40% of participants showed clinically significant change. **Conclusions:** This study did not find a treatment effect for trauma-focused group therapy. The difference between the effectiveness and adequate dose findings suggests the possible value of methods to enhance the delivery of cognitive-behavioral treatments in clinical practice settings.

Sikkema, K. J., Hansen, N. B., Kochman, A., Tarakeshwar, N., Neufeld, S., Meade, C. S., & Fox, A. M. (2007). **Outcomes from a group intervention for coping with HIV/AIDS and childhood sexual abuse: reductions in traumatic stress.** *AIDS and Behavior, 11*, 49-60. doi:10.1007/s10461-006-9149-8 Childhood sexual abuse is common among HIV-infected persons, though few empirically supported treatments addressing sexual abuse are available for men and women with HIV/AIDS. This study reports the outcome from a randomized controlled trial of a group intervention for coping with HIV and sexual abuse. A diverse sample of 202 HIV-positive men and women who were sexually abused as children was randomly assigned to one of three conditions: a 15-session HIV and trauma coping group intervention, a 15-session support group comparison condition, or a waitlist control (later randomly assigned to an intervention condition). Traumatic stress symptoms were assessed at baseline and post-intervention, with analysis conducted for the three-condition comparison followed by analysis of the two-condition comparison between the coping and support group interventions. Participants in the coping group intervention exhibited reductions in intrusive traumatic stress symptoms compared to the waitlist condition and in avoidant traumatic stress symptoms compared to the support group condition. No differences were found between the support group intervention and waitlist conditions. Tests of clinical significance documented the meaningfulness of change in symptoms.

Sloan, D. M., Feinstein, B. A., Gallagher, M. W., Beck, J. G., & Keane, T. M. (2013). **Efficacy of group treatment for posttraumatic stress disorder symptoms: A meta-analysis.** *Psychological Trauma: Theory, Research, Practice, and Policy*, 5, 176-183. doi:10.1037/a0026291 This study conducted a meta-analysis of published randomized clinical group trials for adult survivors of trauma to examine the efficacy of the group format. Effect sizes for posttraumatic stress disorder (PTSD) severity outcome were examined. Sixteen studies were included, with a total of 1686 participants. Results of a random effects model meta-analysis indicated that group treatments are associated with significant pre- to posttreatment reduction in PTSD symptom severity (within treatment $d = .71$, 95% CI [.51, .91]), and result in superior treatment effects relative to a wait list comparison condition ($d = .56$, 95% CI [.31, .82]). However, no significant findings were obtained for group interventions relative to active treatment comparison conditions ($d = .09$, 95% CI [-.03, .22]). Moderator analyses also indicated that gender and type of trauma moderated treatment effects for PTSD outcome, with smaller effect sizes associated with males relative to females and combined gender samples, and smaller effect sizes for combat and child sexual assault trauma samples relative to mixed-trauma sample studies. Taken together, group treatment for trauma symptoms is better than no treatment but not better relative to comparison conditions that control for nonspecific benefits of therapy. Additional work is needed to identify effective group treatments for PTSD, especially for patients with repeated or chronic traumatization.

Sloan, D. M., Unger, W., & Beck, J. G. (2016). **Cognitive-behavioral group treatment for veterans diagnosed with PTSD: Design of a hybrid efficacy-effectiveness clinical trial.** *Contemporary Clinical Trials*, 47, 123-130. doi:10.1016/j.cct.2015.12.016 Despite significant advances in individual treatment approaches for PTSD, knowledge of group approaches has lagged behind. Much of the reason knowledge for group treatment for PTSD has been limited is due to the complexity of conducting randomized controlled trials in the group treatment context. This limited empirical knowledge is unfortunate given the frequency with which group treatment for PTSD is used in clinical settings, including the Department of Veteran Affairs. The goal of this study is to examine the efficacy of a group cognitive-behavioral treatment (GCBT) for PTSD relative to group supportive counseling approach (i.e. group present centered treatment; GPCT). The sample will consist of 196 veterans diagnosed with PTSD who will be randomly assigned to either GCBT ($n = 98$) or GPCT ($n = 98$). Both treatments will be administered by two therapists over the course of 14 sessions. Assessments will take place at baseline, mid-treatment, and 1-, 3-, 6-, and 12-months follow-up. The primary outcome measure will be PTSD symptom severity assessed with a semi-structured diagnostic instrument. Given the rise of veterans presenting for PTSD treatment services, identifying efficacious group treatment approaches will be invaluable.

Zlotnick, C., Johnson, J., & Najavits, L. M. (2009). **Randomized controlled pilot study of cognitive-behavioral therapy in a sample of incarcerated women with substance use disorder and PTSD.** *Behavior Therapy*, 40, 325-336. doi:10.1016/j.beth.2008.09.004 This randomized controlled pilot study compared a cognitive-behavioral therapy (Seeking Safety; SS) plus treatment-as-usual (TAU) to TAU-alone in 49 incarcerated women with substance use disorder (SUD) and posttraumatic stress disorder (PTSD); full or subthreshold.

Seeking Safety consisted of a voluntary group treatment during incarceration and individual treatment after prison release. TAU was required in the prison and comprised 180 to 240 hours of individual and group treatment over 6 to 8 weeks. Assessments occurred at intake, 12 weeks after intake, and 3 and 6 months after release from prison. There were no significant differences between conditions on all key domains (PTSD, SUD, psychopathology, and legal problems); but both conditions showed significant improvements from intake to later time points on all of these outcomes across time. Secondary analyses at follow-up found trends for SS participants improving on clinician-rated PTSD symptoms and TAU participants worsening on self-reported PTSD symptoms. Also, SS demonstrated continued improvement on psychopathology at 3 and 6 months, whereas TAU did not. However, alcohol use improved more for TAU during follow-up. Satisfaction with SS was high, and a greater number of SS sessions was associated with greater improvement on PTSD and drug use. Six months after release from prison, 53% of the women in both conditions reported a remission in PTSD. Study limitations include lack of assessment of SS outcomes at end of group treatment; lack of blind assessment; omission of the SS case management component; and possible contamination between the two conditions. The complex needs of this population are discussed.

Kehle-Forbes, S. and Kimerling, R.
Patient Engagement in PTSD Treatment. (2017).
National Center for PTSD. PTSD Research Quarterly, Vol 28, No 3.

Sloan, D. and Beck, J.
Group Treatment for PTSD. (2016).
National Center for PTSD. PTSD Research Quarterly, Vol 27, No 2.

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