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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.

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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 Mentrikoski (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.

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., Paresh, 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/pts.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.