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## TREATMENT

### Peer-supported in vivo exposures may help with treatment retention

Social support is known to be an important predictor of PTSD treatment outcome (see the [April 2010 CTU-Online](#)). A team led by investigators from the University of Texas Health Science Center at Houston examined whether providing support by a peer specialist could improve treatment retention in PE. Participants were 109 Veterans who were currently or recently engaged in  $\leq 7$  sessions of PE, still had PTSD, and had either dropped out or told their provider they were going to drop out of PE (62% women, 48% Black). Veterans were randomized to receive 4 weeks of either peer-provided general emotional support or peer support in attending and completing in vivo exposures. Both groups showed significant improvements on the PCL-5 (a change of 21 points by post-treatment) with no differences between groups in PCL-5 decrease nor in number of sessions completed. However, a relationship was noted such that the number of peer-assisted exposures completed correlated with number of treatment sessions completed. Indeed, 31% of those assigned to peer-supported in vivo exposure did not complete any exposure with peers, but those who completed even one had higher treatment completion rates (87%) compared to those who did not complete any peer-supported in vivo exposure exercises (56%). Future studies may examine who would benefit most from such support, as well as when it should be provided and by whom.

Read the article: <https://doi.org/10.1080/08995605.2024.2352601>

Hernandez-Tejada, M. A., Bruce, M. J., Muzzy, W., Birks, A., Macedo, E. C. G., Hart, S. M., . . . Acierno, R. (2024). Peer support during in vivo exposure homework increases likelihood of prolonged exposure therapy completion. *Military Psychology*. Advance online publication. PTSDpubs ID: 1634063

### VA Whole Health for Veterans with PTSD

VA's Whole Health initiative, including complementary and integrative health, aims to improve care by prioritizing preferences and personal health goals. A team led by investigators from VA Puget Sound examined whether Veterans with PTSD using Whole Health had improvements in pain, functioning, and meaning. Veterans with and without a PTSD diagnosis in the medical record received conventional care only ( $n=1,053$ ) or at least two Whole Health sessions + conventional care ( $n=1,053$ ) and completed surveys by mail at the time of an initial visit and six months later. Veterans with PTSD were more likely than Veterans without PTSD (38% vs 21%) to use Whole Health. Veterans with PTSD reported improvements in pain ( $d_s .08-.09$ ) and physical health functioning ( $d_s 0.09-0.12$ ) regardless of care track. They improved in mental health functioning only in the Whole Health + conventional care track ( $d=.15$  vs  $.04$  in the conventional care only group). There was no change in a global measure of meaning and purpose in either track. Future research could build on these findings by using randomization and characterizing the other treatments received (e.g., PE, CPT). Given that most pre-post effect sizes were small, with questionable clinical significance, it also would be helpful to understand who benefits from this integrative approach to care.

Read the article: <https://doi.org/10.1037/ser0000822>

Reed, D. E., Engel, C. C., DeFaccio, R., Gaj, L., Douglas, J. H., Williams, R. M., . . . Zeliadt, S. B. (2024). Examining the Veterans Health Administration whole health model of care within the context of posttraumatic stress disorder. *Psychological Services*, 21(2), 224-234. PTSDpubs ID: 1628547

## Benefits of service dogs for PTSD remain unclear

Service dogs have been increasingly sought after to aid Veterans with PTSD, but existing research is limited. The one RCT to date that used clinician-rated PTSD assessments did not observe greater improvement with a service dog versus an emotional support dog (see the [August 2023 CTU-Online](#)). A new secondary analysis of a non-randomized study does not offer better evidence. A team led by investigators at the College of Veterinary Medicine at The University of Arizona followed 156 Veterans with PTSD who applied for a PTSD service dog for three months. Veterans who received a service dog ( $n=81$ ) were compared to those on the waitlist ( $n=75$ ). Participants were assigned service dogs by order of application. Veterans who received a service dog were paired during a 3-week, 40 hour-per-week group class, including  $\geq 10$  hours in public settings. By 3-month follow up, Veterans assigned a service dog were more likely to report lower PTSD and depression symptoms and improved quality of life than those on the waitlist; however, 75% still met criteria for PTSD and they reported significantly lower social activity than the waitlist group. Although the study's findings appear positive overall, they do not indicate that service dogs are effective for PTSD given the lack of benefit observed in the prior, methodologically stronger RCT (with randomization and a more rigorous emotional support dog control group).

Read the article: <https://doi.org/10.1001/jamanetworkopen.2024.14686>

Leighton, S. C., Rodriguez, K. E., Jensen, C. L., MacLean, E. L., Davis, L. W., Ashbeck, E. L., . . . O'Haire, M. E. (2024). Service dogs for veterans and military members with posttraumatic stress disorder: A nonrandomized controlled trial. *JAMA Network Open*, 7(6), e2414686. PTSDpubs ID: 1635025

## Gender differences in guideline-discordant prescribing for PTSD

A prior study found that women Veterans with PTSD were more likely than men to be prescribed psychotropic medications, including both medications that are concordant (i.e., SSRIs/SNRIs) and discordant (e.g., benzodiazepines, atypical antipsychotics) with clinical practice guidelines (see the [August 2013 CTU-Online](#)). A team led by investigators at the Iowa City VA Medical Center examined possible reasons for these prescribing practices. The team used VA administrative data to identify 704,699 Veterans who received inpatient or outpatient care for PTSD during 2020 and were prescribed a psychiatric medication. Women were 67% more likely than men to be prescribed medications discordant with the 2017 VA/DoD Clinical Practice Guideline for PTSD (16.9% of women vs. 10.1% of men). Women were more likely than men to be younger, have been prescribed more prior unique psychiatric medications, and have care linked to a bipolar disorder diagnosis. Even after statistically accounting for these three variables, women were still at 22% increased risk of being prescribed guideline-discordant medications. Although national administrative data allow for a large sample that is generalizable, they rely on provider coding for psychiatric diagnoses (which can be inaccurate) and, in 2020, did not yet have wide-scale data collection of self-identified gender identity. Findings suggest that more work is needed to improve adherence to clinical practice guidelines when treating women Veterans.

Read the article: <https://doi.org/10.4088/JCP.23m15174>

Steffensmeier, K. R.S., Hadlandsmyth, K., Bernardy, N., Ball, D., Johnson, N. L., Van Tiem, J., & Lund, B. C. (2024). What's gender got to do with it: accounting for differences in incident guideline discordant prescribing for PTSD among women and men veterans. *Journal of Clinical Psychiatry*, 85(2), Article 23m15174. PTSDpubs ID: 1635002

## Examining durability of PTSD symptom improvement by cluster following VA residential treatment

Previous work has demonstrated the effectiveness of EBPs in VA PTSD residential treatment programs at reducing total symptoms (see the [June 2023 CTU-Online](#)). A team led by investigators at the VA Northeast Program Evaluation Center examined the durability of changes in specific PTSD symptom clusters over time. Participants included 1,648 Veterans (13% women) treated at VA PTSD residential treatment programs between October 2019 and September 2020. Participants must have met criteria for PTSD based on their admission PCL-5 score and completed at least 8 sessions of either CPT or PE. The investigators examined changes in total PCL-5 scores, symptom clusters, and individual symptoms from admission to discharge and at 4-month and 1-year follow-up. Total symptoms improved over treatment ( $r=.76$ ), with medium-to-large effects observed across symptom clusters ( $rs=.62-.74$ ). These generally persisted ( $rs=.39-.63$  at 4 months,  $rs=.56-.76$  at 1 year), with effects on reexperiencing symptoms appearing somewhat less durable than on other clusters. There was substantial loss to follow-up (65% at 4 months, 63% at 1 year). However, those who dropped out were similar to completers except for being roughly 5 years younger ( $p < .001$ ). This increases confidence in the findings on the robustness of treatment effects across time.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1636312.pdf>

Gross, G. M., Spiller, T. R., Ben-Zion, Z., Rubenstein, A., Pietrzak, R. H., Duek, O., . . . Harpaz-Rotem, I. (2024). Unraveling PTSD: Symptom cluster change during and 1 year after veterans' residential PTSD treatment. *Psychological Trauma*. Advance online publication. PTSDpubs ID: 1636312

## Emotion regulation improves following CPT

PTSD is often associated with difficulties in emotion regulation, but few studies have examined the impact of trauma-focused psychotherapies on emotion regulation. Accordingly, investigators from Rush University Medical Center examined the relationship between emotion regulation and CPT treatment outcomes. Data were drawn from 223 men and women Veterans and service members who participated in a 2-week intensive treatment program. Participants received daily individual CPT and adjunctive interventions (e.g., mindfulness, art therapy). Self-reported symptoms of PTSD and emotion dysregulation were assessed with the PCL-5 and Difficulties in Emotion Regulation Scale-Short Form, respectively. Both PTSD ( $d=1.14$ ) and emotion dysregulation ( $d=.38$ ) improved over the course of treatment. Although greater baseline emotion dysregulation was associated with higher PTSD symptom scores across time, baseline emotion dysregulation was not related to *change* in PTSD symptoms throughout treatment.

Additionally, improvements in emotion regulation were associated with improvements in PTSD symptom severity during treatment. Findings suggest that individuals with emotion regulation difficulties can benefit from trauma-focused psychotherapies for PTSD, and that CPT may improve emotion regulation without the addition of interventions specifically targeting emotion dysregulation prior to treatment.

Read the article: <https://doi.org/10.1016/j.jad.2024.06.019>

Tharaud, J. B., Murphy, J., Smith, D. L., Valdespino-Hayden, Z. E., & Held, P. (2024). Changes in emotion regulation difficulties and PTSD symptom severity in an intensive treatment program for PTSD. *Journal of Affective Disorders*, 361, 620-626. PTSDpubs ID: 1636540

## First RCT of Brainspotting

Brainspotting is a psychotherapy that uses eye movements, cognitive processing and mindfulness to treat PTSD and other psychological issues. There are very limited efficacy data. Recently, investigators at Western Kentucky University conducted the first RCT of Brainspotting, comparing it with treatment-as-usual (TAU) in individuals with PTSD seen in a private practice. Participants with PTSD ( $n=63$ ) were randomized to receive 5 sessions of either Brainspotting or TAU (unspecified psychotherapy); it is unclear if a validated measure was used for diagnosis. Only 27 participants (42.8%) completed the study (14 receiving Brainspotting and 13 receiving TAU), including 20 women, 4 men and 3 people who did not specify gender. Symptoms were measured pre-treatment, immediately post-treatment and at 4-6 weeks follow-up using the PTSD Symptom Scale, the Beck Depression Inventory and the Beck Anxiety Inventory. PTSD, depression, and anxiety improved in both groups over time. In completer analyses, there was a significant group by time interaction for both PTSD and depression. The authors did not report statistical tests to describe the interaction, but visual inspection of the data suggests that the Brainspotting group improved at a similar rate but had better outcomes than TAU at follow up. Interpreting the study's results is difficult given the small sample size, high dropout, completer analyses, lack of confirmation of PTSD diagnosis at baseline, and limited definition of the TAU condition. Methodologically stronger studies will be needed to support the use of Brainspotting for the treatment of PTSD.

Read the article: <https://ibpj.org/issues/IBPJ-Volume-22-Number-2-2024.pdf>

Horton, L. M., Schwartzberg, C., Goldberg, C. D., Grieve, F. G., & Brdecka, L. E. (2023). Brainspotting: A treatment for posttraumatic stress disorder. *International Body Psychotherapy Journal*, 22(2), 57-72. PTSDpubs ID: 1636674

## Within-treatment symptom change helps predict dropout

Predicting dropout from PTSD treatment remains vexing for both clinicians and researchers. Most studies have examined baseline predictors, with few variables other than age reliably predicting dropout across studies. A team led by investigators from the National Center for PTSD examined whether within-treatment symptom changes might predict dropout in a VA sample with comorbid PTSD and substance use disorders (SUD). In this secondary analysis of an RCT of 16 sessions of motivational enhancement therapy (MET) and PE, the two treatments were either integrated in each session ( $n=95$ ) or in phased delivery with MET followed by PE ( $n=88$ ). Dropout, defined as ending before session 12, was high in both arms: 76.8% in integrated and 63.6% in phased. Hispanic participants were more likely to drop out from the integrated condition, and Black and younger participants were more likely to drop out of the phased condition. In the phased condition, participants with moderate PCL-IV change were more likely to drop out than those with higher or lower rates of change. And in the integrated condition, participants with either the most consistently high or low substance use were more likely to drop out. Taken together, the findings suggest that patient characteristics differentially predict dropout depending on the treatment. It would be helpful for future work to replicate and extend findings like these to optimize treatment selection for individuals with PTSD.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1634972.pdf>

Alpert, E., Kaplan, A., Nelson, D., Oslin, D. W., Polusny, M. A., Ingram, E. P., & Kehle-Forbes, S. M. (2024). Clusters based on within-treatment symptom trajectories as predictors of dropout in treatment for posttraumatic stress disorder and substance use disorder. *Journal of Dual Diagnosis*. Advance online publication. PTSDpubs ID: 1634972

## A conceptual review of personalized approaches to PTSD treatment manuals

A team led by investigators from the National Center for PTSD describe the theoretical basis for utilizing a case conceptualization approach to implementing manualized treatments for PTSD.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1635979.pdf>

Galovski, T. E., Nixon, R. D. V., & Kehle-Forbes, S. (2024). Walking the line between fidelity and flexibility: A conceptual review of personalized approaches to manualized treatments for posttraumatic stress disorder. *Journal of Traumatic Stress*. Advance online publication. PTSDpubs ID: 1635979

## Take NOTE

### Meta-analysis of predictors of response to trauma-focused psychotherapy on PTSD

A team led by investigators from the University of New South Wales in Sydney, Australia conducted a meta-analysis of 114 studies of a wide range of pre-treatment predictors of treatment outcome in trauma-focused treatment.

Read the article: <https://doi.org/10.1037/bul0000438>

Keyan, D., Garland, N., Choi-Christou, J., Tran, J., O'Donnell, M., & Bryant, R. A. (2024). A systematic review and meta-analysis of predictors of response to trauma-focused psychotherapy for posttraumatic stress disorder. *Psychological Bulletin*, 150(7), 767-797. PTSDpubs ID: 1635421

## An umbrella review of mindfulness-based interventions for PTSD

Investigators from the University of California conducted an umbrella review of existing systematic reviews of mindfulness-based interventions for PTSD, identifying 69 systematic reviews (27 meta-analyses) including 83 primary studies.

Read the article: <https://doi.org/10.1016/j.janxdis.2024.102859>

Jovanovic, B., & Garfin, D. R. (2024). Can mindfulness-based interventions reduce PTSD symptoms? An umbrella review. *Journal of Anxiety Disorders*, 104, Article 102859. PTSDpubs ID: 1634287

## State of the science of telehealth and PTSD-SUD treatment

Two articles recently reviewed the “state of the science” related to PTSD treatment, one regarding the use of telehealth for treating PTSD, and one regarding the treatment of comorbid PTSD and substance use disorders.

Read the articles:

<https://doi.org/10.1002/jts.23074>

Bruce, M. J., Pagán, A. F., & Acierno, R. (2024). State of the science: Evidence-based treatments for posttraumatic stress disorder delivered via telehealth. *Journal of Traumatic Stress*. Advance online publication. PTSDpubs ID: 1636009

<https://www.ptsd.va.gov/professional/articles/article-pdf/id1635224.pdf>

Back, S. E., Jarnecke, A. M., Norman, S. B., Zaur, A. J., & Hien, D. A. (2024). State of the science: Treatment of comorbid posttraumatic stress disorder and substance use disorders. *Journal of Traumatic Stress*. Advance online publication. PTSDpubs ID: 1635224

## Meta-analysis of the effect of PTSD exposure therapy on quality of life

A team led by investigators from the University of Utah conducted a meta-analysis of 20 studies of exposure therapy’s effect on quality of life for patients with PTSD.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1635142.pdf>

Kaur, K., Asnaani, A., Levy, H. C., Miller, M. L., Tolin, D. F., & McLean, C. P. (2024). Moving beyond symptom reduction: A meta-analysis on the effect of exposure therapy for PTSD on quality of life. *Journal of Clinical Psychology*. Advance online publication. PTSDpubs ID: 1635142

## A meta-analysis of EBPs’ effect on PTSD symptom clusters in RCTs

Investigators from the University of Rio de Janeiro conducted a meta-analysis of seven RCTs of the effect of CPT, exposure therapy or EMDR on DSM-5 PTSD symptom clusters.

Read the article: <https://doi.org/10.1097/nmd.0000000000001769>

Melani, M. S., Paiva, J. M., Mendlowicz, M. V., Vilete, L., Luz, M. P., Ventura, P. R., . . . Berger, W. (2024). Are there differences among evidence-based psychotherapies for treating different DSM-5 PTSD symptom clusters? A systematic review and meta-analysis of controlled clinical trials. *Journal of Nervous and Mental Disease*, 212(6), 332-343. PTSDpubs ID: 1634752

## A review of interventions that may address the amygdala in PTSD

Investigators from the Birmingham and Charleston VAs reviewed the role of the amygdala in the development and maintenance of PTSD, as well as how varied therapeutic interventions may impact amygdala functioning.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1635337.pdf>

Davis, L. L., & Hamner, M. B. (2024). Post-traumatic stress disorder: the role of the amygdala and potential therapeutic interventions - a review. *Front Psychiatry*, 15, 1356563. doi:10.3389/fpsy.2024.1356563 PTSDpubs ID: 1635337



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