

ISSUE 16(3)

DECEMBER 2022

CTU-Online contains summaries of clinically relevant research articles.

Articles authored by staff of the National Center for PTSD are available in full text; just click the link. For other articles we provide a link to where you might be able to view or download the full text and a PTSDpubs ID for easy access. ([What is PTSDpubs?](#))

If you have trouble accessing the full article, see the box at the bottom of the last page for help.

We welcome feedback from readers about content and format. Please email us at ncptsd@va.gov.

[Subscribe to CTU-Online](#)

[Search past issues in PTSDpubs](#)

[Visit www.ptsd.va.gov](http://www.ptsd.va.gov)

Editor

Paula P. Schnurr, PhD

Senior Associate Editor

Kristina L. Caudle, PhD

Associate Editors

Paul E. Holtzheimer, MD

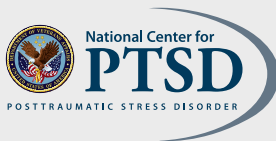
Sadie E. Larsen, PhD

Erika M. Roberge, PhD

Lauren M. Sippel, PhD

Jennifer S. Wachen, PhD

Rachel Zerkowicz, PhD



CTU-Online is published 6 times per year by the National Center for PTSD, Executive Division.

TREATMENT

Aerobic exercise may help sustain benefits of exposure therapy

Exposure therapies for PTSD are hypothesized to rely on extinction of fear learning as a mechanism of action. A primary question is whether augmenting exposure therapy by promoting extinction learning improves treatment outcomes. Aerobic exercise has been shown to improve extinction learning in animals and humans.

One hundred thirty individuals with PTSD were randomly assigned to exposure therapy plus aerobic exercise or exposure therapy plus passive stretching. Both aerobic exercise and stretching took place after exposure to trauma memories. After 9 weeks of treatment, participants in both groups reported equivalent clinically significant reductions in PTSD (average CAPS-2 reductions > 31) and depression symptoms. At the 6-month follow up, the aerobic exercise group reported better sustained symptom relief than the stretching group ($es = 0.6$). Because both groups reported significant benefit from treatment, and differences between aerobic exercise and stretching groups did not emerge until six months posttreatment, the mechanism by which aerobic exercise may augment exposure therapy is unclear. While these findings appear promising, more work is needed to establish efficacy and to increase feasibility, clinical utility, and accessibility.

Read the article: [https://doi.org/10.1016/s2215-0366\(22\)00368-6](https://doi.org/10.1016/s2215-0366(22)00368-6)

Bryant, R. A., Dawson, K. S., Azevedo, S., Yadav, S., Cahill, C., Kenny, L., . . . Keyan, D. (2022). Augmenting trauma-focused psychotherapy for post-traumatic stress disorder with brief aerobic exercise in Australia: A randomised clinical trial. *Lancet Psychiatry*. Advance online publication. PTSDpubs ID:1609320

Strong perceived working alliance is associated with improved outcomes in intensive CPT

A strong patient-therapist working alliance is associated with better treatment outcomes, but whether this relationship holds in intensive settings with shorter courses of treatment is unknown. Investigators from Rush University Medical Center explored this question by examining the role of working alliance in intensive PTSD treatment for Veterans.

Data were drawn from 2-week ($n = 128$) and 3-week ($n = 73$) intensive programs that included daily group and individual CPT as well as adjunctive programming (e.g., psychoeducation, mindfulness). The Working Alliance Inventory (WAI-SR) was used weekly during treatment to assess the Veteran's perception of the bond with their individual CPT therapist, agreement on goals, and agreement on tasks. Mean working alliance in both programs increased over time. Higher working alliance scores predicted significant reductions in both the 2-week and 3-week programs for self-reported PTSD, depression, and negative posttraumatic cognitions. Of the WAI-SR subscales, agreement on task was the strongest predictor of outcomes. Results suggest that meaningful working alliances can be formed in brief treatment settings, and that attuning to agreement on tasks during treatment could promote optimal symptom reduction.

Read the article: <https://doi.org/10.1037/pst0000447>

Held, P., Meade, E. A., Kovacevic, M., Smith, D. L., Pridgen, S., Coleman, J. A., & Klassen, B. J. (2022). Building strong therapeutic relationships quickly: The effect of the perceived working alliance on veterans' intensive PTSD treatment outcomes. *Psychotherapy*, 59(3), 470-480. PTSDpubs ID: 1594881

Pilot RCT of Acceptance and Commitment Therapy to improve social support for Veterans with PTSD

Few treatments target the interpersonal problems and poor social support experienced by many individuals with PTSD. Investigators from the Bedford VA conducted a small RCT of Acceptance and Commitment Therapy to Improve Social Support (ACT-SS) compared to Person-Centered Therapy.

Veterans with PTSD and clinically significant interpersonal difficulties were randomized to 12 sessions of ACT-SS ($n = 21$) or Person-Centered Therapy, a non-directive psychotherapy ($n = 19$). ACT-SS includes ACT interventions to address interpersonal problems (e.g., mindfulness exercises about feared interpersonal situations, committed action exercises intended to increase social interaction) and new content focused on social skill-building, anger management, and trust. Data are difficult to interpret because the investigators reported only within-group analysis of change in each condition rather than between-group comparisons. Veterans in the ACT-SS group showed improvement in quality of relationships, engagement in social and leisure activities, and PTSD, whereas Veterans who received Person-Centered Therapy did not. Social support did not improve in either condition. The modest change in PTSD (8.8 points on the PCL-5), coupled with a prior RCT showing that ACT did not outperform Present-Centered Therapy for improving PTSD (see the [August 2016 CTU-Online](#)), suggests that ACT may have limited utility for treating PTSD—but could perhaps be a viable approach for those seeking help with interpersonal relationships.

Read the article: <https://doi.org/10.3390/jcm11123482>

Kelly, M. M., Reilly, E. D., Ameral, V., Richter, S., & Fukuda, S. (2022). A randomized pilot study of acceptance and commitment therapy to improve social support for veterans with PTSD. *Journal of Clinical Medicine*, 11(12), Article 3482. PTSDpubs ID: 1595304

60-minute PE sessions are not less effective than 90-minute

PE traditionally utilizes 90-minute sessions, which can be challenging to schedule in some clinical settings. A team led by investigators at the University of Pennsylvania recently conducted an RCT to compare 60-minute PE sessions with 90-minute sessions. Knowing that shorter sessions compared favorably with longer sessions could enhance use of PE.

60-minute sessions in this study had all the same elements as 90-minute sessions, except that psychoeducation in sessions 1 and 2 was abbreviated, and imaginal exposure was reduced from 40 to 20 minutes. The study included 160 active-duty military personnel randomized to 60- versus 90-minute PE sessions (71.9% men, 54.4% white). Using noninferiority analysis, the investigators found that improvement in 60-minute sessions was not less than improvement in 90-minute sessions at posttreatment and at 3- and 6-months posttreatment. Likewise, session-by-session PCL-5 score decreases were also non-inferior in 60-minute PE. This is the first adequately powered study to test the effectiveness of shorter PE sessions. These findings suggest that clinicians could consider using

60-minute PE sessions, although investigators note that clinicians must be well-trained in PE to effectively deliver PE in a shorter session format.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1595676.pdf>

Foa, E. B., Bredemeier, K., Acierno, R., Rosenfield, D., Muzzy, W., Tuerk, P. W., . . . McLean, C. P. (2022). The efficacy of 90-min versus 60-min sessions of prolonged exposure for PTSD: A randomized controlled trial in active-duty military personnel. *Journal of Consulting and Clinical Psychology*, 90(6), 503-512. PTSDpubs ID: 1595676

PE intensive outpatient program is effective a year posttreatment

A growing literature supports the effectiveness of intensive outpatient programs (IOPs) for EBPs for PTSD (see [April 2022 CTU-Online](#) for several recent papers). Previous work (see [December 2020 CTU-Online](#)) showed gains maintained 12 months after treatment in an IOP that offered CPT, but until this study there were no data on the longer-term effectiveness of IOPs that offer PE.

Researchers from Emory University examined clinic data from 376 post-9/11 Veterans and service members (average age = 41.2, 35.9% women, 57.7% White, 30.3% Black) who received PE in a two-week IOP. Treatment included nine 90-minute individual PE sessions and nine 120-minute group in vivo exposure sessions. Ninety one percent of patients completed treatment. Mean baseline PCL-5 scores decreased at posttreatment ($es = 1.3$) and those gains were largely maintained at 12 months posttreatment. A similar pattern was seen for depression symptoms. These results suggests that gains realized in an intensive PE program are maintained well beyond the end of treatment. Future research can directly compare intensive vs. traditionally delivered EBPs for PTSD on long-term effectiveness. In addition, more data are needed on the very long-term effectiveness (> one year) of PTSD treatments in both traditional and intensive formats.

Read the article: <https://doi.org/10.1016/j.jpsychires.2022.06.029>

Yasinski, C. W., Watkins, L. E., Maples-Keller, J. L., Ragsdale, K. A., Sherrill, A. M., Burton, M. S., . . . Rothbaum, B. O. (2022). Long-term effectiveness of a prolonged exposure-based intensive outpatient program for veterans with posttraumatic stress disorder. *Journal of Psychiatric Research*, 152, 313-320. PTSDpubs ID: 1595631

More evidence that manner of asking about military sexual trauma matters

Surveys often find higher rates of exposure to military sexual trauma (MST) than are identified via mandatory VHA screening (see the [August 2019 CTU-Online](#)). A team led by University of California San Francisco investigators compared disclosure of MST during screening versus an anonymous survey to identify patient characteristics that might be linked to underreporting.

Participants included 202 cisgender women, ages 45-64, who were enrolled in VHA care in northern California between 2019 and 2020. They answered questions about demographic characteristics, mental health, and the VHA MST screen as part of

a larger study of women Veterans' health in midlife. This data was compared to the MST screen in their medical record. Of the 121 Veterans who had negative MST screens in their medical record, 72 (60%) reported MST on the survey. No demographic characteristics distinguished Veterans with discordant responses. Having a PTSD diagnosis was linked to more consistent responses across surveys and charts. Findings support previous work that suggest how Veterans are asked about MST influences their response. The results also suggest the importance of identifying barriers and facilitators of MST disclosure during screening for different subgroups of women Veterans to maximize the impact of the VHA MST screening program.

Read the article: <https://doi.org/10.1016/j.whi.2022.06.002>

Hargrave, A. S., Maguen, S., Inslicht, S. S., Byers, A. L., Seal, K. H., Huang, A. J., & Gibson, C. J. (2022). Veterans Health Administration screening for military sexual trauma may not capture over half of cases among midlife women veterans. *Women's Health Issues, 32*(5), 509-516. PTSDpubs ID: 1603006

Individualized treatment planning promotes EBP completion

The VA/DoD clinical practice guideline for PTSD recommends individual trauma-focused psychotherapy as first-line PTSD treatment, although delivery of these treatments varies across VA clinics. Authors from the Hines VAMC and National Center for PTSD evaluated three models of clinic design in a large outpatient VA PTSD specialty clinic to understand the role of clinic design on treatment initiation and completion.

This was a retrospective observational study over three timepoints at a single VA PTSD specialty clinic that employed three methods of EBP enrollment: Group intake sessions (2012-2014), group intake with individual evaluation (2014-2018) and individual intakes with shared decision making (2018-2020). Clinic patients were predominantly male and White, although the number women and post-9/11 Veterans increased over time, reflecting national VA trends. Group intake with or without individual evaluation led to higher clinic enrollment (90.4% and 81.2%, respectively) compared with individual intake (67.8%). However, individual intakes led to the greatest proportion of Veterans completing an EBP (48.9%, vs. 36.5% and 36.3% for group intake with or without individual evaluation). While this investigation was retrospective and descriptive, it suggests that individualized treatment planning and shared

decision making may promote completion of EBPs for PTSD. Authors identified other programmatic changes (expanded clinic hours and telehealth options) that may support EBPs as well. Randomization to various clinic designs and inclusion of treatment outcome data will strengthen future research.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1599626.pdf>

Hessinger, J. D., Etingen, B., Larsen, S. E., Hunley, H. A., Goldstein, D. A., Day, A. M., . . . Maieritsch, K. P. (2022). Improving engagement and retention to treatment within VHA PTSD specialty care: Evolution of an outpatient program design. *Psychological Services*. Advance online publication. PTSDpubs ID: 1599626

Combined stellate ganglion block and PE shows benefit in uncontrolled trial

There is strong interest in finding ways to enhance the benefits of effective treatments to promote greater recovery among individuals with PTSD. Investigators at the University of Texas Health Science Center at San Antonio recently reported an uncontrolled study combining stellate ganglion block (SGB) with massed PE in active-duty and retired service members with PTSD. SGB is being investigated as a treatment for PTSD and has shown promise in one RCT (see [December 2019 CTU-Online](#)).

Twelve participants received 10 PE sessions over two weeks with SGB between sessions 1 and 2. Participants were evaluated at baseline, after two weeks of treatment and one and three months posttreatment. Eleven participants (92%) completed the protocol, and the intervention was well tolerated. There were very large decreases in PTSD symptoms from baseline to follow-up on the CAPS-5 ($g = 2.22$) and PCL-5 ($g = 1.89$), but adverse events were common. All participants experienced an adverse event and there were 33 events related to SGB reported at session 2. This study was open-label, uncontrolled and included relatively few participants, which limits interpretation and ability to generalize. However, these preliminary findings suggest the combination of SGB with PE warrants further study of both efficacy and safety.

Read the article: <https://doi.org/10.1002/jts.22873>

Peterson, A. L., Straud, C. L., Young-McCaughan, S., McCallin, J. P., Hoch, M., Roux, N. P., . . . Blount, T. H. (2022). Combining a stellate ganglion block with prolonged exposure therapy for posttraumatic stress disorder: A nonrandomized clinical trial. *Journal of Traumatic Stress, 35*(6), 1801-1809. PTSDpubs ID: 1598896

Take NOTE

Real world effectiveness of PTSD treatment

A paper from investigators at Tel Aviv University examines the real-world effectiveness of PTSD treatment. An accompanying commentary from an investigator at VA Boston on Levi et al. (2022)

contextualizes the findings and summarizes evidence on the effectiveness of evidence-based psychotherapy for PTSD.

Read the article: <https://doi.org/10.1177/21677026211051314>

Levi, O., Ben Yehuda, A., Pine, D. S., & Bar-Haim, Y. (2022). A sobering look at treatment effectiveness of military-related posttraumatic stress disorder. *Clinical Psychological Science*, 10(4), 690-699. PTSDpubs ID: 1597744

Read the commentary: <https://doi.org/10.1177/2167702621101068>

Litz, B. T. (2022) It is time to flip the script and leverage the point of care to discover ways of improving treatment outcomes for posttraumatic stress disorder: Commentary on "A sobering look at treatment effectiveness of military-related posttraumatic stress disorder" (Levi et al., 2021). *Clinical Psychological Science*. Advance online publication. PTSDpubs ID: 1609321

MDMA-assisted psychotherapy

Researchers at the University of Melbourne, Australia published a review of studies investigating MDMA-assisted psychotherapy for PTSD.

Read the article: <https://doi.org/10.1177/00048674221127186>

Bedi, G., Cotton, S. M., Guerin, A. A., & Jackson, H. J. (2022). MDMA-assisted psychotherapy for post-traumatic stress disorder: The devil is in the detail. *Australian & New Zealand Journal of Psychiatry*. Advance online publication. PTSDpubs ID:1602463

Do race and ethnicity impact treatment outcomes?

Researchers at Florida State University and Medical University of South Carolina reviewed meta-analyses examining whether race and ethnicity impact treatment outcomes for psychotherapy for psychiatric disorders.

Read the article: <https://doi.org/10.1016/j.cpr.2022.102192>

Cogle, J. R., & Grubaugh, A. L. (2022). Do psychosocial treatment outcomes vary by race or ethnicity? A review of meta-analyses. *Clinical Psychology Review*, 96, Article 102192. PTSDpubs ID: 1597758

Sleep management during PTSD treatment

A RAND report summarizes the evidence on the impact of PTSD treatments on sleep outcomes.

Read the article: <https://doi.org/10.7249/RR4471>

Ruelaz Maher, A., Apaydin, E., Hilton, L., Chen, C., Troxel, W. M., Hall, O., . . . Hempel, S. (2021). *Sleep management in posttraumatic stress disorder (PTSD): A systematic review*. (RR-4471-OSD) Santa Monica, CA: RAND Corporation. PTSDpubs ID: 1609319



Veterans Health
Administration

Trouble Getting the Full Text of an Article?

Articles authored by National Center for PTSD staff are available in full text. For other articles we provide a link to where you might be able to view or download the full text. VA clinicians might have privileges through their VA library or university affiliation; however, VA firewalls sometimes block permissions to access reference materials. If you cannot access the full text of any of these articles, we advise that you contact your local librarian or web/internet technical person.