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TREATMENT

PTSD service dogs not more effective than emotional support dogs

Service dogs for PTSD are of broad popular and scientific interest. Previous work compared Veterans assigned a service dog to waitlist controls (see the [December 2020 CTU-Online](#)). But until recently, there had never been a study of PTSD service dogs that used a more rigorous comparison group, which is important given the novelty of the intervention and anecdotal testimony about their efficacy.

Investigators funded by VA's Cooperative Studies Program examined the effectiveness of service dogs versus emotional support dogs on quality of life, functioning, PTSD symptoms in 181 Veterans with PTSD (mean age = 50.6, 80.1% male, 66.3% White). Veterans were randomized to receive a service dog or an emotional support dog. Service dogs were taught to perform five tasks specific to a handler's PTSD (e.g., to sweep a room perimeter). Emotional support dogs were AKC Canine Good Citizens but not trained on PTSD-specific tasks. The service dog and emotional support dog groups did not differ on any of the three primary outcomes: quality of life and physical and mental functioning. Secondary analyses found that PTSD symptoms decreased in both groups. Although Veterans paired with service dogs improved slightly more (3.7 points on PCL-5), the difference was not clinically meaningful. In the discussion, the authors mention that groups also did not differ in the percentage of participants not meeting PTSD criteria according to the CAPS-5, but did not report these analyses.

Given the lack of differences on the primary outcomes and clinically insignificant differences on the PCL-5 that were not shown on the CAPS-5, the study suggests that service dogs are unlikely to meaningfully benefit Veterans with PTSD.

Read the article: <https://doi.org/10.1176/appi.ps.20220138>

Richerson, J. T., Wagner, T. H., Abrams, T., Skelton, K., Biswas, K., Illarmo, S., . . . Stock, E. M. (2023). Therapeutic and economic benefits of service dogs versus emotional support dogs for veterans with PTSD. *Psychiatric Services*. Advance online publication. PTSDpubs ID: 1615319

RCT of brief mindfulness training in primary care shows promise

In a recent study, investigators from the VA Center for Integrated Healthcare, Syracuse University and the VA Center of Excellence for Suicide Prevention compared Primary Care Brief Mindfulness Training (PCBMT) to psychoeducation for Veterans with PTSD who were treated in a primary care setting. Complementary treatments that promote wellness, such as mindfulness, are popular and often well-suited to primary care delivery.

PCBMT is a manualized intervention adapted from Mindfulness Based Stress Reduction that consists of 4 manualized sessions co-led by a mental health provider and a Veteran peer specialist. Fifty-five Veterans (mean age 55.91, 87.3% male, 85.5% White) with PTSD were randomized to either PCBMT or psychoeducation (also 4 90-minute sessions). PCBMT participants had larger decreases in PCL-5 scores than the psychoeducation group ($d = 0.40$), although the decrease in the PCBMT group was modest (11.55 points) compared to typical decreases in EBPs for PTSD. Interventions did not differ on treatment attendance, completion, satisfaction, or likelihood of initiating additional psychotherapy after treatment completion.

Results suggest brief manualized mindfulness training can be implemented in a primary care setting and may reduce PTSD symptoms. While EBP for PTSD should be considered first, complementary treatments such as PCBT may be useful as introductory or adjunctive treatments, especially in primary care settings.

Read the article: <https://doi.org/10.4088/JCP.22m14510>

Possemato, K., Bergen-Cico, D., Buckheit, K., Ramon, A., McKenzie, S., Smith, A. R., . . . Pigeon, W. R. (2022). Randomized clinical trial of Brief Primary Care-Based Mindfulness Training versus a psychoeducational group for veterans with posttraumatic stress disorder. *Journal of Clinical Psychiatry*, 84(1), Article 22m14510. PTSDpubs ID: 1614949

Capnometry-assisted respiratory training shows naturalistic benefit, but rigorous data of efficacy are lacking

Capnometry-assisted respiratory training (CART) uses a device to provide real-time feedback on respiratory rate and exhaled carbon dioxide levels. CART has shown benefit for panic disorder and has been proposed as an intervention for PTSD. Investigators from a company that markets Capnometry Guided Respiratory Intervention (CGRI), a form of CART, compiled naturalistic data on patients receiving the intervention for either panic disorder or PTSD.

Patients with panic disorder ($n = 1610$) or PTSD ($n = 246$) received CGRI for 28 days. Patients with PTSD (73.0% women) completed an average of 42 sessions (of 56 recommended) and 11% completed fewer than 6 treatments. Patients with PTSD reported a 14.1-point mean decrease in PCL-5 scores from baseline ($d = .78$) in intent-to-treat analyses. These findings are consistent with positive results of a smaller open trial of CGRI for PTSD (see [October 2021 CTU-Online](#)). However, the uncontrolled design of both studies prevents definitive conclusions about the efficacy of CGRI for PTSD. An RCT with a sham-control group would be a helpful next step.

Read the article: <https://doi.org/10.3389/fdgth.2022.976001>

Cuyler, R. N., Katdare, R., Thomas, S., & Telch, M. J. (2022). Real-world outcomes of an innovative digital therapeutic for treatment of panic disorder and PTSD: A 1,500 patient effectiveness study. *Frontiers in Digital Health*, 4, Article 976001. PTSDpubs ID: 1614031

Three-week massed and intensive outpatient delivery of Prolonged Exposure both shown to be effective for combat PTSD

Massed delivery of PE is effective in military personnel (see the [February 2018 CTU-Online](#)), but adaptations may be needed to improve treatment outcomes. Investigators from the Consortium to Alleviate PTSD developed an augmented massed PE treatment delivered in an intensive outpatient setting (IOP-PE) and compared its efficacy to standard massed PE.

Participants were 234 service members and Veterans (77.8% men, 43.6% White) randomized to receive IOP-PE or massed-PE. Both arms included 15 90-minute PE sessions over 3 weeks. The IOP-PE arm added 8 augmentations (e.g., homework completion in clinic,

focus on worst three traumas) resulting in 15 full days of treatment. Both groups showed significant reductions in PTSD symptoms on the CAPS-5 (d 's = -1.62 massed-PE; -1.65 IOP-PE). There were no differences on rates of diagnostic remission or reliable change at any timepoint, although the massed-PE group showed slight PTSD symptom worsening between 1- and 6- months post-treatment. There were no differences between groups over time on the PCL-5. The lack of differences between treatments does not definitively indicate that IOP-PE and massed-PE are equivalent. However, the very large and almost identical pre-post effect sizes suggest that both formats lead to comparable benefits. While IOP-PE outperformed massed-PE at 6-month follow-up, both were found to be effective, and clinicians and programs should consider implementation time and cost when making clinical and programmatic decisions.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1614713.pdf>

Peterson, A. L., Blount, T. H., Foa, E. B., Brown, L. A., McLean, C. P., Mintz, J., . . . Keane, T. M. (2023). Massed vs intensive outpatient prolonged exposure for combat-related posttraumatic stress disorder: A randomized clinical trial. *JAMA Network Open*, 6(1), Article e2249422. PTSDpubs ID: 1614713

PTSD remission leads to broad, consistent quality of life improvement in treatment

Two prior studies in Veterans found that reductions in PTSD symptoms during treatment led to some quality of life (QOL) improvement, but that loss of diagnosis or remission was needed for good endpoint QOL (see [April 2016](#) and [February 2021 CTU-Online](#)). Investigators at the National Center for PTSD and Milwaukee VA examined whether these findings would generalize to civilians.

This secondary analysis of two randomized controlled trials of CPT included 115 civilians with PTSD related to a sexual or physical assault (83.5% women, 47.0% African American) and measures of both PTSD symptoms (CAPS-IV) and QOL. PTSD symptom improvement was classified as no response, response (decrease of ≤ 10 points), loss of diagnosis (decrease of ≤ 10 points, post-treatment score < 45 , and no longer meeting criteria), or remission (post-treatment score < 20). QOL response was classified into clinically meaningful improvement (or not) and achieving good post-treatment functioning (or not). Logistic regressions examined whether PTSD symptom improvement category predicted QOL improvement categories. Loss of diagnosis and remission both predicted clinically meaningful change across all measures of QOL. However, only remission predicted good endpoint across all QOL measures.

Along with prior studies in Veterans, this study indicates that optimal treatment outcomes may require more than just PTSD symptom "response," and shows that successful PTSD treatment can lead to meaningful differences in QOL.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1613397.pdf>

Hamrick, L., Larsen, S. E., Sippel, L. M., Sherman, K., Resick, P., & Galovski, T. (2023). Benchmarking quality of life to posttraumatic stress disorder symptom changes in cognitive processing therapy. *Journal of Anxiety Disorders*, 93, Article 102647. PTSDpubs ID: 1613397

RCT of PTSD Family Coach shows room for improvement

Apps and other digital tools have the potential to expand access to evidence-based information and interventions for patients and family members. Investigators at the National Center for PTSD examined the use and efficacy of PTSD Family Coach, a mobile app for PTSD patients' loved ones that includes tools for assessing and managing stress and promotes social support, compared to a psychoeducation-only app.

Investigators randomized 200 participants (96.5% female) who were living with a Veteran with PTSD to self-guided use of PTSD Family Coach ($n = 104$) or a psychoeducation app ($n = 94$). They assessed individual- and relationship-related outcomes at pre- and post-treatment. About half (50.5%) of all participants used the app to which they were randomized. The PTSD Family Coach group, on average, opened the app 4 times over the four-week study period. The low use may explain why the groups did not differ on any outcomes (e.g., caregiver burden, stress, relationship functioning) at posttreatment. Users within both groups, when data were pooled, reported reduced stress whereas non-users did not. The authors describe making updates to the app based on feedback from participants, which could increase use. Digital mental health tools are promising but understudied, and these results underscore the need for scientific investigation of efficacy and engagement.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1615067.pdf>

van Stolk-Cooke, K., Wielgosz, J., Hallenbeck, H. W., Chang, A., Rosen, C., Owen, J., & Kuhn, E. (2023). The PTSD Family Coach app in veteran family members: Pilot randomized controlled trial. *JMIR Formative Research*, 7, Article e42053. PTSDpubs ID: 1615067

Proof-of-principle study suggests deep brain stimulation for PTSD warrants further study

Deep brain stimulation (DBS) is a surgical intervention used to treat several treatment-refractory neuropsychiatric conditions including Parkinson Disease, essential tremor, dystonia, and OCD. As the neural circuitry of PTSD becomes better understood, DBS of various brain regions has been proposed as a potential intervention. Investigators at the Sunnybrook Research Institute in Toronto, ON conducted a proof-of-principle pilot study of DBS of the subgenual cingulum in patients with severe, treatment-refractory PTSD.

Based on findings using a rodent model of PTSD-like behaviors, DBS was used to target the subgenual cingulum. Four women with PTSD (mean CAPS-5 = 77.5; history of failing six adequate treatments for PTSD on average) received chronic DBS with weekly programming adjustments for three months. Mean CAPS-5 score

decreased by 55% after six months. Two patients were deemed responders (average CAPS-5 decrease of 87.5%), one was considered a partial responder (35% decrease) and one was a nonresponder (12% decrease). No serious adverse events were associated with the surgery or chronic DBS. Functional neuroimaging showed changes in the amygdala and cingulum, though the very small sample size limits interpretation of these results. Although these findings are highly preliminary, they suggest that further study is warranted for patients with severe, highly treatment-resistant PTSD.

Read the article: <https://doi.org/10.1126/sciadv.adc9970>

Hamani, C., Davidson, B., Corchs, F., Abrahao, A., Nestor, S. M., Rabin, J. S., . . . Lipsman, N. (2022). Deep brain stimulation of the subgenual cingulum and uncinata fasciculus for the treatment of posttraumatic stress disorder. *Science Advances*, 8(48), Article eadc9970. PTSDpubs ID: 1613766

Testing single-focus treatments for comorbid PTSD and alcohol use disorder

Prior work emphasizes the benefit of jointly treating comorbid PTSD and alcohol use disorder (AUD) (see the [June 2019 CTU-Online](#)). However, individuals with PTSD/AUD may present to clinics where PTSD care is not available. A team led by investigators at VA Puget Sound and the University of Washington examined the effect of single-focus treatments on AUD and PTSD symptoms.

Participants with PTSD and AUD (29% Veterans) were randomized to either CPT ($n = 38$), relapse prevention (RP; targeting AUD symptoms, $n = 41$) or an assessment-only control condition ($n = 22$). Those in the control condition were re-randomized to an active treatment after six weeks. Relative to the control condition, CPT led to a significant reduction in PTSD symptoms ($d = 1.22$) and a 49% reduction in heavy drinking. RP led to a 66% reduction in heavy drinking days but had no effect on PTSD symptoms. In secondary analyses including those re-randomized to an active treatment, PTSD symptom reduction did not differ between CPT and RP. Heavy drinking days were lower in RP. The Results of the primary analyses suggest that RP is not a promising initial strategy for improving both PTSD and AUD, despite the data including rerandomized controls. The low baseline PTSD severity and mostly civilian sample may limit generalizability to Veterans, however. Integrated PTSD/AUD care should be used when feasible.

Read the article: <https://doi.org/10.1371/journal.pone.0276111>

Simpson, T. L., Kaysen, D. L., Fleming, C. B., Rhew, I. C., Jaffe, A. E., Desai, S., . . . Resick, P. A. (2022). Cognitive processing therapy or relapse prevention for comorbid posttraumatic stress disorder and alcohol use disorder: A randomized clinical trial. *PLoS One*, 17(11), Article e0276111. PTSDpubs ID: 1613818

Take NOTE

Effective treatments for comorbid PTSD and SUD

A meta-analysis combined individual patient data from 36 studies to compare behavioral and pharmacotherapies for adults with co-occurring PTSD and SUD.

Read the article: <https://doi.org/10.1176/appi.ajp.22010071>

Hien, D. A., Morgan-López, A. A., Saavedra, L. M., Ruglass, L. M., Ye, A., López-Castro, T., . . . Back, S. E. (2023). Project Harmony: A meta-analysis with individual patient data on behavioral and pharmacologic trials for comorbid posttraumatic stress and alcohol or other drug use disorders. *American Journal of Psychiatry*, 180(2), 155-166. PTSDpubs ID: 1613996

Addressing clinician concerns about CPT

Authors present common clinical concerns about CPT and discuss the evidence base for each concern.

Read the article: <https://doi.org/10.1016/j.cbpra.2022.08.005>

LoSavio, S. T., Holder, N., Wells, S. Y., & Resick, P. A. (2022). Clinician concerns about cognitive processing therapy: A review of the evidence. *Cognitive and Behavioral Practice*. Advance online publication. PTSDpubs ID: 1613388

Physical exercise as a PTSD treatment

A systematic review and meta-analysis examining the efficacy of physical exercise for PTSD.

Read the article: <https://doi.org/10.1093/milmed/usab497>

Björkman, F., & Ekblom, Ö. (2022). Physical exercise as treatment for PTSD: A systematic review and meta-analysis. *Military Medicine*, 187(9-10), e1103-e1113. PTSDpubs ID: 1584576

Interpersonal functioning after trauma-focused psychotherapy

A systematic review and meta-analysis examines the effectiveness of trauma-focused psychotherapy for improving interpersonal functioning in patients with PTSD.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1614639.pdf>

Swerdlow, B. A., Baker, S. N., Leifker, F. R., Straud, C. L., Rozek, D. C., & Sippel, L. M. (2023). The impact of trauma-focused psychotherapy for posttraumatic stress disorder on interpersonal functioning: A systematic review and meta-analysis of randomized clinical trials. *Journal of Traumatic Stress*. Advance online publication. PTSDpubs ID: 1614639



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