

CLINICIAN'S TRAUMA UPDATE

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TREATMENT

Racial and ethnic disparities in clinical outcomes among Veterans with PTSD

Previous work revealed racial and ethnic disparities in Veterans' engagement and retention in evidence-based care for PTSD (see the [December 2014 CTU-Online](#)). New research by investigators at the Center for Care Delivery and Outcomes Research points to disparities in clinical outcomes as well. Data were from a cohort of Veterans diagnosed with PTSD at a VHA outpatient visit between 2008 and 2010 who had not received mental health treatment in the previous year. Analyses were based on treatment initiators--2,992 Veterans (84% male) who self-reported PTSD symptoms and mental health-related quality of life at baseline and six months later and who completed at least one psychotherapy appointment or been prescribed an evidence-based medication for PTSD symptoms during the follow-up period. Participants identified as non-Latinx White (44%), African American (22%), Hispanic/Latinx (21%), Native American (9%), and Asian/Hawaiian/Pacific Islander (5%). Compared with non-Hispanic/Latinx White Veterans, Hispanic/Latinx Veterans were 34% less likely and African American Veterans 25% less likely to report PTSD symptom improvement. African American and Asian/Hawaiian/Pacific Islander Veterans were more likely than non-Hispanic/Latinx White Veterans to report improvements in mental health-related quality of life, however. These findings provide important evidence of racial and ethnic disparities in PTSD outcomes—but better understanding of the reasons for these disparities will be critical for addressing them.

Read the article: <http://www.ptsd.va.gov/professional/articles/article-pdf/id1556107.pdf>

Spoont, M., Nelson, D., Kehle-Forbes, S., Meis, L., Murdoch, M., Rosen, C., & Sayer, N. (2020). Racial and ethnic disparities in clinical outcomes six months after receiving a PTSD diagnosis in Veterans Health Administration. *Psychological Services*. Advance online publication. PTSDpubs ID: 1556107

IQ may predict initial response to CPT

Evidence-based psychotherapies (EBPs) for PTSD typically require patients to use cognitive skills. In a recent study, investigators at the National Center for PTSD examined whether overall intelligence was associated with response to two EBPs for PTSD: CPT and Written Exposure Therapy (WET). Investigators analyzed data from a randomized controlled trial of WET versus CPT for PTSD ($N = 126$). In the primary study, both treatments were effective for PTSD, and WET was noninferior to CPT in efficacy (see the [February 2018 CTU-Online](#)). A brief assessment, the Wechsler Test of Adult Reading, was used to estimate overall IQ. Participants with higher overall estimated IQ (but not education level) responded better to CPT at 24 weeks after baseline. Overall IQ had no effect on the response to WET, and the association between IQ and CPT response was not seen at the final, 60-week timepoint. No other moderating variable was identified for either treatment (age, sex, symptom duration, or comorbidities including depression). These findings suggest that optimal initial response to CPT may require greater use of cognitive skills than those needed to optimally benefit from WET. If validated by future studies, this finding could help identify which treatment may be most likely to benefit a specific patient.

Read the article: <http://www.ptsd.va.gov/professional/articles/article-pdf/id1555967.pdf>

Marx, B. P., Thompson-Hollands, J., Lee, D. J., Resick, P. A., & Sloan, D. M. (2020). Estimated intelligence moderates cognitive processing therapy outcome for posttraumatic stress symptoms. *Behavior Therapy*. Advance online publication. PTSDpubs ID: 1555967

Take NOTE

Development of the PTSD-Repository

The National Center for PTSD partnered with the Agency for Healthcare Research and Quality to create the PTSD Trials Standardized Database Repository (PTSD-Repository), a

large database of 318 PTSD clinical trials (see the [August 2019 CTU-Online](#)). In a new article, the developers describe how they created the PTSD-Repository and discuss how it can be used to advance research and education initiatives.

Read the article: <http://www.ptsd.va.gov/professional/articles/article-pdf/id1556064.pdf>

O'Neil, M. E., Harik, J. M., McDonagh, M. S., Cheney, T. P., Hsu, F. C., Cameron, D. C., . . . Hamblen, J. L. (2020). Development of the PTSD-Repository: A publicly available repository of randomized controlled trials for posttraumatic stress disorder. *Journal of Traumatic Stress*. Advance online publication. PTSDpubs ID: 1556064

For more information and to access the PTSD-Repository: <https://www.ptsd.va.gov/ptsdrepository/index.asp>

Minority participation in RCTs of PE

A team of investigators at the University of Nevada, Reno conducted a systematic review of clinical trials of PE with the goal of examining the inclusion of racial and ethnic minority participants.

Read the article: <https://doi.org/10.1002/jts.22539>

Benuto, L. T., Bennett, N. M., & Casas, J. B. (2020). Minority participation in randomized controlled trials for prolonged exposure therapy: A systematic review of the literature. *Journal of Traumatic Stress*. Advance online publication. PTSDpubs ID:1554387

Defining PTSD treatment response

Investigators at the Phoenix Australia Centre for Posttraumatic Mental Health systematically reviewed criteria used to define treatment response and non-response in RCTs of first-line treatments for PTSD.

Read the article: <https://doi.org/10.1111/cpsp.12355>

Varker, T., Kartal, D., Watson, L., Freijah, I., O'Donnell, M., Forbes, D., . . . Hinton, M. (2020). Defining response and nonresponse to posttraumatic stress disorder treatments: A systematic review. *Clinical Psychology: Science and Practice*. Advance online publication. PTSDpubs ID: 1556449

Read the commentary: <http://www.ptsd.va.gov/professional/articles/article-pdf/id1557279.pdf>

Larsen, S. E., Sippel, L. M. & Schnurr, P. P. (2020), Let's all get on the same page: A commentary on "Defining response and nonresponse to PTSD treatments: A systematic review". *Clinical Psychology: Science and Practice*. Advance online publication. PTSDpubs ID: 1557279

Intensive treatments for PTSD

Investigators at the Michael E. DeBakey VAMC performed a systematic review of studies examining the effectiveness

of intensive, or massed, delivery of evidence-based psychotherapies for PTSD.

Read the article: <https://doi.org/10.1002/jts.22556>

Sciarrino, N. A., Warnecke, A. J., & Teng, E. J. (2020). A systematic review of intensive empirically supported treatments for posttraumatic stress disorder. *Journal of Traumatic Stress*. Advance online publication. PTSDpubs ID: 1555842

Effects of depression and dissociation on outcomes in psychotherapy for PTSD

A team led by investigators at Case Western Reserve University conducted a meta-analysis in which they examined the effect of baseline depressive symptoms on treatment response and dropout in 44 RCTs of trauma-focused psychotherapy.

Read the article: <https://doi.org/10.1016/j.beth.2020.04.015>

Kline, A. C., Cooper, A. A., Rytwinski, N. K., & Feeny, N. C. (2020). The effect of concurrent depression on PTSD outcomes in trauma-focused psychotherapy: A meta-analysis of randomized controlled trials. *Behavior Therapy*. Advance online publication. PTSDpubs ID: 1555737

Investigators at Leiden University in the Netherlands examined the effects of pre-treatment dissociation on outcomes in psychotherapy for PTSD.

Read the article: <https://doi.org/10.1192/bjo.2020.30>

Hoeboer, C. M., De Kleine, R. A., Molendijk, M. L., Schoorl, M., Oprel, D. A. C., Mouthaan, J., . . . Van Minnen, A. (2020). Impact of dissociation on the effectiveness of psychotherapy for post-traumatic stress disorder: meta-analysis. *BJPsych Open*, 6(3), Article e53. PTSDpubs ID: 1553873.

Non-invasive brain stimulation for PTSD

A team of investigators at the Hong Kong Polytechnic University conducted a systematic review and meta-analysis of studies of transcranial magnetic stimulation and transcranial direct current stimulation for PTSD.

Read the article: <https://doi.org/10.1038/s41398-020-0851-5>

Kan, R. L. D., Zhang, B. B. B., Zhang, J. J. Q., & Kranz, G. S. (2020). Non-invasive brain stimulation for posttraumatic stress disorder: A systematic review and meta-analysis. *Translational Psychiatry*, 10, Article 168. PTSDpubs ID: 1553665

Training methods for delivery evidence-based psychotherapies for PTSD

A team led by investigators at the University of Minnesota carried out a systematic review of RCTs that tested strategies for training providers in delivery of EBPs for PTSD.

Read the article: <http://www.ptsd.va.gov/professional/articles/article-pdf/id1553683.pdf>

Valenstein-Mah, H., Greer, N., McKenzie, L., Hansen, L., Strom, T. Q., Wiltsey Stirman, S., . . . Kehle-Forbes, S. M. (2020). Effectiveness of training methods for delivery of evidence-based psychotherapies: a systematic review. *Implementation Science*, 15, Article 40. PTSDpubs ID: 1553683

Systematic review of PTSD symptoms in healthcare workers during coronavirus outbreaks

A team led by investigators at the University of Pisa in Italy reviewed studies of the effects of the SARS 2003 outbreak, MERS 2012

outbreak, and current Covid-19 outbreak on PTSD symptoms among healthcare workers.

Read the article: <https://doi.org/10.1016/j.psychres.2020.113312>

Carmassi, C., Foghi, C., Dell'Oste, V., Cordone, A., Bertelloni, C. A., Bui, E., & Dell'Osso, L. (2020). PTSD symptoms in healthcare workers facing the three coronavirus outbreaks: What can we expect after the COVID-19 pandemic. *Psychiatry Research*, 292, Article 113312. PTSDpubs ID: 1556762

A population-based study of PTSD symptoms during the Covid-19 pandemic in Ireland

Using a nationally representative sample of the general population in Ireland ($N = 1,041$), investigators at Edinburgh Napier University in Scotland examined prevalence of, and risk factors for, Covid-19 related PTSD symptoms.

Read the article: <https://doi.org/10.1002/jts.22565>

Karatzias, T., Shevlin, M., Murphy, J., McBride, O., Ben-Ezra, M., Bentall, R. P., . . . Hyland, P. (2020). Posttraumatic stress symptoms and associated comorbidity during the COVID-19 pandemic in Ireland: A population-based study. *Journal of Traumatic Stress*. Advance online publication. PTSDpubs ID: 1556089

Psychological distress among New York healthcare workers during the Covid-19 pandemic

Investigators at the Columbia University Irving Medical Center disseminated a web-based survey to physicians, nurses, and medical trainees ($N = 657$) to learn about their levels of psychological distress, their coping behaviors, and their preferences for wellness resources.

Read the article: <https://doi.org/10.1016/j.genhosppsych.2020.06.007>

Shechter, A., Diaz, F., Moise, N., Anstey, D. E., Ye, S., Agarwal, S., . . . Abdalla, M. (2020). Psychological distress, coping behaviors, and preferences for support among New York healthcare workers during the COVID-19 pandemic. *General Hospital Psychiatry*, 66, 1-8. PTSDpubs ID: 1556985

Residential PTSD treatment outcomes for Veterans who experienced military sexual trauma

Military sexual trauma (MST) is linked to more severe PTSD and a host of psychiatric and medical comorbidities that may be effectively managed within the intensive milieus of VHA PTSD Residential and Rehabilitation Treatment Programs (RRTPs). A team led by investigators at the Rocky Mountain MIRECC for Suicide Prevention analyzed data from all RRTPs to examine how MST history impacts treatment response. Participants included 7,918 Veterans (12.1% women) who completed an RRTP intake between October 2014 and September 2016. Veterans reported on PTSD symptoms via the PCL-5 at intake, discharge, and four months post-discharge. Only 29% of participants provided data post-discharge. At baseline, the 20% of the sample who reported MST had slightly higher symptoms than Veterans without MST histories ($d = .2$). Mean PCL-5 scores for both groups dropped by more than 10 points and did not differ at discharge (MST $M = 43.9$, Non-MST $M = 44.7$). Both groups reported symptom increases following discharge, but this was somewhat more pronounced for those with MST histories. Findings suggest that Veterans who experienced MST benefit from RRTPs regardless of MST history, but that maintaining gains after discharge may be challenging. However, although the investigators accounted for missing data in their statistical analyses, it is not clear to what extent this finding is generalizable given the low response rate. Further investigation with more complete follow-up and questions about factors related to maintenance of gains would be helpful.

Read the article: <http://www.ptsd.va.gov/professional/articles/article-pdf/id1549479.pdf>

Holliday, R., Smith, N. B., Holder, N., Gross, G. M., Monteith, L. L., Maguen, S., . . . Harpaz-Rotem, I. (2020). Comparing the effectiveness of VA residential PTSD treatment for veterans who do and do not report a history of MST: A national investigation. *Journal of Psychiatric Research*, 122, 42-47. PTSDpubs ID: 1549479

DBT-PTSD and CPT for women who experienced childhood trauma

Childhood trauma can result in PTSD as well as other psychiatric conditions, such as borderline personality disorder (BPD). Dialectical Behavior Therapy (DBT) is an established treatment for BPD. A recent study by investigators at Heidelberg University in Germany compared modified versions of DBT (DBT-PTSD) and CPT in women with childhood trauma-related PTSD and borderline personality symptoms. The study randomized 193 women with PTSD related to childhood trauma and at least three BPD symptoms, including affective instability/emotional dysregulation. Participants received an equal number of sessions of DBT-PTSD or CPT—up to 45 sessions in one year. At the primary endpoint (15 months post-baseline), both treatments showed efficacy as measured by the CAPS. DBT-PTSD had greater efficacy and lower dropout compared with CPT. Although differences were relatively small (e.g., $d = .3$ for PTSD symptom reduction), this study suggests that DBT-PTSD might be especially helpful for this population. However, CPT delivery was overseen by supervisors with limited CPT expertise, while DBT-PTSD delivery was supervised by the developers of the treatment. This could have contributed to the differences seen in this study. Regardless of the reason for the

differences, these findings show that childhood trauma related PTSD can be effectively treated in women with borderline personality symptoms by either DBT-PTSD or CPT.

Read the article: <https://doi.org/10.1001/jamapsychiatry.2020.2148>

Bohus, M., Kleindienst, N., Hahn, C., Müller-Engelmann, M., Ludäscher, P., Steil, R., . . . Priebe, K. (2020). Dialectical behavior therapy for posttraumatic stress disorder (DBT-PTSD) compared with cognitive processing therapy (CPT) in complex presentations of PTSD in women survivors of childhood abuse: A randomized clinical trial. *JAMA Psychiatry*. Advance online publication. PTSDpubs ID: 1556502

Further support for the effectiveness of intensive treatment programs for PTSD

Investigators at the Emory University School of Medicine examined the effects of patient characteristics on treatment outcomes in a PE intensive outpatient program (IOP) for Veterans and Service members. Growing evidence suggests that intensive delivery of trauma-focused psychotherapy is effective for PTSD (see *Take Note* in this issue. Data were obtained from the first 80 Veterans with PTSD enrolled in the Emory Healthcare Veterans Program IOP. In this 2-week program, Veterans received seven daily individual 90-minute PE sessions, nine daily 120-minute in vivo exposure groups, and tailored additional services including case management, relationship skills training, and physical health and wellness interventions. Veterans completed self-report symptom measures at baseline, throughout treatment, and posttreatment. Nearly all (96%) Veterans completed treatment, with pre-post decreases in PTSD ($d = 1.2$) and depression ($d = 1.1$), and an increase in satisfaction with social functioning ($d = .7$) at posttreatment. Black Veterans and those with a primary military sexual trauma had higher PTSD symptoms at baseline but showed similar benefit from the program. No other demographics or baseline symptom levels predicted treatment benefit. Taken together, the lack of many predictors of outcome suggest this intensive treatment approach can be effective for a diverse range of Veterans.

Read the article: <https://doi.org/10.1037/ser0000422>

Rauch, S. A. M., Yasinski, C. W., Post, L. M., Jovanovic, T., Norrholm, S., Sherrill, A. M., . . . Rothbaum, B. O. (2020). An intensive outpatient program with prolonged exposure for veterans with posttraumatic stress disorder: Retention, predictors, and patterns of change. *Psychological Services*. Advance online publication. PTSDpubs ID: 1556108

Sequencing of PE and EMDR sessions within intensive treatment for PTSD

Most intensive treatment programs are based on a single PTSD treatment protocol (see Rauch et al. above and the [June 2020 CTU-Online](#)). Using data from a program that includes both PE and EMDR, investigators at Radboud University Nijmegen in the Netherlands examined whether the sequence of these treatments affected PTSD outcomes. Data came from 117 patients with PTSD who were enrolled in an inten-

sive, 8-day treatment program in the Netherlands in 2017. All patients had two 90-minute therapy sessions per day. Patients treated in January had PE in the morning and EMDR in the afternoon ($n = 44$), whereas those treated in February completed EMDR in the morning and PE in the afternoon ($n = 62$). Although the groups were not randomly assigned to treatment sequence, their baseline characteristics did not differ. PTSD symptoms were measured with the Dutch version of the PTSD Symptom Scale-Self Report. Patients in the morning PE/afternoon EMDR group had a greater decline in PTSD symptoms than the morning EMDR/afternoon PE group ($d = .5$). The investigators explained their findings by proposing that the afternoon EMDR sessions offered opportunities to further process trauma memories elicited during morning PE. Future studies can test whether delivering PE and EMDR simultaneously is more effective than delivering only PE or EMDR

Read the article: <https://doi.org/10.1016/j.psychres.2020.113032>

Van Minnen, A., Voorendonk, E. M., Rozendaal, L., & de Jongh, A. (2020). Sequence matters: Combining prolonged exposure and EMDR therapy for PTSD. *Psychiatry Research*, 290, Article 113032. PTSDpubs ID: 1553695

VA administrative data provide clues about who benefits from PTSD treatment

The VA electronic medical record creates unique opportunities for investigators to probe clinical data to answer empirical questions about PTSD care. A team led by investigators at the San Francisco VA Health Care System used VA data to examine predictors of response to EBPs for PTSD and to identify how many sessions of CPT were needed for clinical improvement.

The samples for both studies were drawn from a cohort of Iraq and Afghanistan War Veterans with PTSD, at least one mental health visit at VHA, and at least two PCL-IV or PCL-5 scores collected between 2001 and 2017. PCL-5 scores were transformed to the PCL-IV scale for analysis since the PCL-IV had been used during most years of data collection. The first analysis included 32,780 Veterans and focused on predictors of clinically meaningful improvement in PE or CPT, defined as a decrease from baseline of at least 10 points. Nearly 33% of these Veterans attained this level of improvement. Higher odds of improvement were observed in Veterans who completed individual PE only ($OR = 2.2$) or individual CPT only ($OR = 1.3$). There were also higher odds of improvement among Veterans who initiated PE or CPT within one year of starting mental health care ($OR = 1.2$), among those who completed 8 or more sessions in 16 weeks ($OR = 1.2$), among women ($OR = 1.2$), and among those with a drug dependence diagnosis ($OR = 1.2$). Decreased odds of improvement were seen in Black Veterans ($OR = .8$) and Veterans with service-connected disabilities ($OR = .6$).

The second analysis focused on the 26,189 Veterans who received CPT. The investigators looked for the median effective dose of CPT, defined as the number of sessions needed for

a 50% probability of clinically meaningful improvement, which occurred in 35.1% of the sample. Veterans had a 50% chance of clinically meaningful improvement at 8 sessions, although fewer sessions were necessary if the Veteran received individual CPT (7 sessions) compared to receiving at least one group CPT session (10 sessions). Veterans with comorbid diagnoses of bipolar disorder or drug abuse had a 50% probability of clinically meaningful improvement about one session sooner than Veterans without those comorbidities. Conversely, Marine Corps Veterans, service-connected Veterans, and Veterans with comorbid pain disorders displayed had this 50% likelihood of improvement about one session later.

Findings are consistent with previous work showing that individual delivery of EBPs is associated with better treatment outcomes than group treatment (see the [December 2016 CTU-Online](#)) and that patients who are most likely to improve do so by 8 sessions (see the [December 2018 CTU-Online](#)). They also provide additional evidence that EBPs for PTSD are appropriate for patients with complex comorbidities.

Read the articles:

<http://www.ptsd.va.gov/professional/articles/article-pdf/id1554631.pdf>

Holder, N., Shiner, B., Li, Y., Madden, E., Neylan, T. C., Seal, K. H., . . . Maguen, S. (2020). Cognitive processing therapy for veterans with posttraumatic stress disorder: What is the median effective dose? *Journal of Affective Disorders, 273*, 425-433. PTSDpubs ID: 1554631

<http://www.ptsd.va.gov/professional/articles/article-pdf/id1553884.pdf>

Maguen, S., Holder, N., Li, Y., Madden, E., Neylan, T. C., Seal, K. H., . . . Shiner, B. (2020). Factors associated with PTSD symptom improvement among Iraq and Afghanistan veterans receiving evidenced-based psychotherapy. *Journal of Affective Disorders, 273*, 1-7. PTSDpubs ID: 1553884



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