

# CLINICIAN'S TRAUMA UPDATE

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ISSUE 14(2)

APRIL 2020

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

## TREATMENT

### New studies reveal mechanisms of action in trauma-focused psychotherapy

Few studies have directly examined how and why effective trauma-focused psychotherapies work. In two new studies, investigators tested proposed mechanisms of change in trauma-focused cognitive therapy and PE.

A team led by investigators at the University of Oxford examined negative appraisals and trauma memory characteristics in relation to sudden gains in 2 samples of patients in trauma-focused cognitive therapy (CT-PTSD) delivered in routine clinical care. Sudden gains are rapid, large decreases in symptoms in between sessions. The two samples ( $n = 248$  and  $n = 234$ ) were composed of patients who provided enough week-to-week data to analyze sudden gains (i.e., at least 2 of 3 scores prior to a potential gain and at least 2 of 3 scores following a potential gain). The investigators compared patients who experienced sudden gains (Sample 1: 30.65%; Sample 2: 37.18%) with a matched control group of patients who did not report sudden gains. Consistent with previous research, patients with sudden gains had better overall outcomes (see the [April 2010 CTU-Online](#) and [June 2013 CTU-Online](#)). Neither patient characteristics nor baseline cognitive factors predicted sudden gains reliably across both samples. Patients who experienced sudden gains reported greater changes in negative appraisals and memory characteristics than patients without sudden gains. Most notably, negative appraisals were reduced in the session *prior* to sudden gains; change in memory characteristics preceded sudden gains in Sample 2 only.

Read the article: <https://doi.org/10.1037/ccp0000488>

A recent review suggested that trauma-related belief change is also a mechanism of PE (see the [August 2017 CTU-Online](#)). A team led by investigators at the University of North Carolina-Asheville proposed that emotional processing of the trauma memory following exposure may drive belief change in PE. To test this hypothesis, the authors developed the PE Therapist Questionnaire, an 8-item clinician-rated scale assessing patient engagement during imaginal exposure and perspective shifts during processing. A total of 17 therapists completed the questionnaire for 151 Veterans in PE in routine care. The authors found that changes in trauma-related beliefs during post-exposure processing predicted lower next-session PTSD severity, even when controlling for current-session PTSD and depression symptoms. The quality of imaginal exposure was not related to next-session PTSD symptom severity.

Read the article: <https://doi.org/10.1002/jts.22493>

These studies offer evidence that changes in cognitive factors, including negative appraisals and beliefs, are central to recovery from PTSD. Interventions that target negative appraisals in particular could promote sudden improvements in PTSD symptoms.

Cox, K. S., Wangelin, B. C., Keller, S. M., Lozano, B. E., Murphy, M. M., Maher, E. K., . . . Tuerk, P. W. (2020). Emotional processing of imaginal exposures predicts symptom improvement: Therapist ratings can assess trajectory in prolonged exposure for posttraumatic stress disorder. *Journal of Traumatic Stress*. Advance online publication. PTSDpubs ID: 1551069

Wiedemann, M., Stott, R., Nickless, A., Beierl, E. T., Wild, J., Warnock-Parkes, E., . . . Ehlers, A. (2020). Cognitive processes associated with sudden gains in cognitive therapy for posttraumatic stress disorder in routine care. *Journal of Consulting and Clinical Psychology*. Advance online publication. PTSDpubs ID: 1550925

## Younger age predicts better outcomes in CPT among active duty Servicemembers

CPT is an effective treatment for PTSD in military samples (see the [December 2016 CTU-Online](#)), but some Servicemembers respond better than others. Investigators from the STRONG STAR Consortium examined factors that predicted response to CPT in an active duty military sample. Identifying predictors of treatment outcome could guide treatment planning. This secondary analysis included data from 165 Soldiers who participated in a randomized clinical trial comparing group and individual CPT. Potential predictors, including demographic, psychological, and military variables, were examined in relation to change in PTSD severity from pre- to post-treatment as measured by the PTSD Symptom Scale-Interview. Younger age was the only variable that was related to symptom improvement. Age also interacted with treatment format. Servicemembers younger than 35 randomized to individual treatment showed twice as much improvement in individual therapy than group therapy, whereas improvements for older participants did not differ by treatment format. These results suggest that younger Servicemembers should be offered individual treatment when possible. Additionally, the lack of association between baseline characteristics and treatment outcome suggests that Servicemembers with comorbid symptomatology should not be ruled out from being offered CPT.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1551073.pdf>

Resick, P. A., LoSavio, S. T., Wachen, J. S., Dillon, K. H., Nason, E. E., Dondanville, K. A., . . . Mintz, J. (2020). Predictors of treatment outcome in group or individual cognitive processing therapy for posttraumatic stress disorder among active duty military. *Cognitive Therapy and Research*. Advance online publication. PTSDpubs ID: 1551073

## Transient symptom increases during CPT are not associated with worse outcomes

Clinicians may avoid using trauma-focused psychotherapies for PTSD due to concern that transitory symptom exacerbation may lead to negative outcomes, including dropout. Results from RCTs do not support this concern, but these data may not generalize to routine clinical care (see the [Feb 2016 CTU-Online](#)). Using data from clinicians delivering CPT as part of routine clinical care, a recent study assessed the effects of PTSD symptom increases during treatment. This study included data from a trial comparing consultation strategies to support clinicians newly trained in CPT (see the [Oct 2018 CTU-Online](#)). Providers with diverse clinical training treated 183 community-based patients with CPT as part of the providers' training in CPT. Patients reported PTSD symptom severity at each visit using the PCL-S. Most patients (67%) experienced increase in at least one PTSD symptom during treatment, higher than rates seen in prior studies. However, these symptoms were generally transient and not associated with greater dropout nor worse overall PTSD outcomes. Also, demographic characteristics and comorbid conditions were not associated with a greater likelihood of symptom increases. These findings further support the conclusion that symptom increases

during trauma-focused PTSD treatment, even if common in routine clinical care, are not associated with increased dropout or worse clinical outcomes overall.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1549791.pdf>

Larsen, S. E., Mackintosh, M. A., La Bash, H., Evans, W. R., Suvak, M. K., Shields, N., . . . Wiltsey Stirman, S. (2020). Temporary PTSD symptom increases among individuals receiving CPT in a hybrid effectiveness-implementation trial: Potential predictors and association with overall symptom change trajectory. *Psychological Trauma*. Advance online publication. PTSDpubs ID: 1549791

## Content from written narratives in CPT predicts risk of treatment dropout

Attending to patient-related factors during treatment is key to engagement and retention. Information collected as part of core interventions in trauma-focused psychotherapy may provide clues about which patients are at risk for dropping out of treatment. A study by the National Center for PTSD examined written narratives from CPT to identify characteristics that may predict dropout. Participants were 51 adults who received CPT and completed at least one written narrative in an RCT comparing CPT (with the trauma account) and Written Exposure Therapy. Initial impact statements and written trauma accounts were coded to quantify trauma-related cognitions, emotions, and physiological experiences expressed in the narratives on a four-point scale from 0 (absent) to 3 (high). More negative emotions during the trauma and ruminative processing in the present predicted lower dropout and overgeneralized thinking predicted higher dropout. Considering only the first impact statement (versus the trauma accounts), more present-day negative emotions predicted lower dropout, while present-day negative physiological experiences predicted higher dropout. Findings suggest that patients willing to engage with negative emotions may be best able to tolerate CPT, if emotions are not over-engaged to the point of physiological hyperarousal. Providers already accustomed to attending to content in patients' written narratives to inform CPT interventions could consider using this information to anticipate risk of dropout and talk with their patients about strategies for staying in treatment.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1550348.pdf>

Alpert, E., Hayes, A. M., Barnes, J. B., & Sloan, D. M. (2019). Predictors of dropout in cognitive processing therapy for PTSD: An examination of trauma narrative content. *Behavior Therapy*. Advance online publication. PTSDpubs ID: 1550348

## Online tools may help increase dissemination of best treatment practices for PTSD

Treatment guidelines are often not followed in US healthcare systems, partly due to lack of knowledge about best practices among clinicians. To address this problem, investigators led by the National Center for PTSD tested whether an online resource could increase providers' familiarity with and perceptions of

## Take NOTE

### Network studies of PTSD

A team led by an investigator at the Norwegian Centre for Violence and Traumatic Stress Studies conducted a systematic review of studies that took a network analysis approach to PTSD. Another team out of University College London completed a systematic review and network meta-analysis of 90 trials of 22 psychological interventions for PTSD.

Read the articles:

<https://doi.org/10.1080/20008198.2019.1700614>

<https://doi.org/10.1017/s0033291720000070>

Birkeland, M. S., Greene, T., & Spiller, T. R. (2020). The network approach to posttraumatic stress disorder: A systematic review. *European Journal of Psychotraumatology*, 11(1). PTSDpubs ID: 1550181

Mavranezouli, I., Megnin-Viggars, O., Daly, C., Dias, S., Welton, N. J., Stockton, S., . . . Pilling, S. (2020). Psychological treatments for post-traumatic stress disorder in adults: A network meta-analysis. *Psychological Medicine*, 50, 542-555. PTSDpubs ID: 1550172

### Systematic review and meta-analysis of prazosin for sleep problems in PTSD

Investigators at Sichuan University in China conducted a systematic review and meta-analysis of RCTs that tested the effect of prazosin on nightmares, sleep quality, or overall PTSD symptoms.

Read the article: <https://doi.org/10.1016/j.sleep.2019.06.010>

Zhang, Y., Ren, R., Sanford, L. D., Yang, L., Ni, Y., Zhou, J., . . . Tang, X. (2019). The effects of prazosin on sleep disturbances in post-traumatic stress disorder: A systematic review and meta-analysis. *Sleep Medicine*, 67, 225-231. PTSDpubs ID: 1549788

### Interpersonal psychotherapy for PTSD

A team led by investigators at Monash University in Australia completed a systematic review and meta-analysis of RCTs that assessed the efficacy of interpersonal psychotherapy for PTSD.

Read the article: <https://doi.org/10.1016/j.jad.2019.12.021>

Althobaiti, S., Kazantzis, N., Ofori-Asenso, R., Romero, L., Fisher, J., Mills, K. E., & Liew, D. (2020). Efficacy of interpersonal psychotherapy for post-traumatic stress disorder: A systematic review and meta-analysis. *Journal of Affective Disorders*, 264, 286-294. PTSDpubs ID: 1550074

### EEG-based neurofeedback for PTSD

Investigators at the Sahlgrenska University Hospital in Sweden conducted a systematic review of EEG-based neurofeedback for PTSD and conducted a meta-analysis on the four existing RCTs.

Read the article: <https://doi.org/10.1192/j.eurpsy.2019.7>

Steingrimsson, S., Bilonic, G., Ekelund, A. C., Larson, T., Stadig, I., Svensson, M., . . . Bernhardsson, S. (2020). Electroencephalography-based neurofeedback as treatment for post-traumatic stress disorder: A systematic review and meta-analysis. *European Psychiatry*, 63(1). PTSDpubs ID: 1551076

### Smartphone apps for PTSD

Two systematic reviews of smartphone apps for PTSD were published. One study from a team led by an investigator at the University of Vienna was a systematic review and meta-analysis of self-management apps for PTSD; the other, by a team at the Albert-Ludwigs-University of Freiburg in Germany, was a systematic review of apps for PTSD that were also rated for quality.

Read the articles:

<https://doi.org/10.3389/fnins.2020.00003>

<https://doi.org/10.1080/20008198.2019.1701788>

Goreis, A., Felnhofner, A., Kafka, J. X., Probst, T., & Kothgassner, O. D. (2020). Efficacy of self-management smartphone-based apps for post-traumatic stress disorder symptoms: a systematic review and meta-analysis. *Frontiers in Neuroscience*, 14. PTSDpubs ID: 1550742

Sander, L. B., Schorndanner, J., Terhorst, Y., Spanhel, K., Pryss, R., Baumeister, H., & Messner, E. M. (2020). 'Help for trauma from the app stores?' A systematic review and standardised rating of apps for post-traumatic stress disorder (PTSD). *European Journal of Psychotraumatology*, 11(1). PTSDpubs ID: 1550180

### Oxytocin as a potential treatment for PTSD

A team led by investigators at the University of Pavia in Italy conducted a systematic review of studies of the effects of intranasal oxytocin on PTSD symptoms, with the goal of informing whether oxytocin could be used to treat PTSD.

Read the article: <https://doi.org/10.1016/j.psyneuen.2020.104605>

Giovanna, G., Damiani, S., Fusar-Poli, L., Rocchetti, M., Brondino, N., de Cagna, F., . . . Politi, P. (2020). Intranasal oxytocin as a potential therapeutic strategy in post-traumatic stress disorder: A systematic review. *Psychoneuroendocrinology*, 115. PTSDpubs ID: 1551071

## The effectiveness of EMDR for psychiatric disorders including PTSD

Investigators at Taipei Medical University completed a meta-analysis of 17 RCTs of EMDR for anxiety, phobias, panic disorder, somatic symptoms, and PTSD.

Read the article: <https://doi.org/10.1016/j.jpsychires.2020.01.005>

Yunitri, N., Kao, C. C., Chu, H., Voss, J., Chiu, H. L., Liu, D., . . . Chou, K. R. (2020). The effectiveness of eye movement desensitization and reprocessing toward anxiety disorder: A meta-analysis of randomized controlled trials. *Journal of Psychiatric Research*, 123, 102-113. PTSDpubs ID: 1550671

benefit of best practices for PTSD treatment. The PTSD Clinicians Exchange website was developed to provide educational materials on best practices, as well as discussion boards, a biweekly email update and a bimonthly newsletter. Across three healthcare systems (active duty, VA, and the private sector), 605 clinicians were randomized to either full access to the Exchange or a bimonthly newsletter-only control group. Primary outcomes assessed at 12 months included familiarity with practices and perceptions of their benefit for PTSD. Providers randomized to the PTSD Clinicians Exchange showed a greater increase in familiarity with PTSD best practices compared to providers in the control group. There was no difference between the groups in change in perceptions of benefit. Also, only 33% of the providers randomized to the Exchange actually accessed the site to view the materials. These results show that online tools can improve the dissemination of information about evidence-based treatments for PTSD, but the low utilization of the web-based platform suggests that tailoring of content or format may be needed to maximize impact.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1551074.pdf>

Ruzek, J. I., Wilk, J., Simon, E., Marceau, L., Trachtenberg, F. L., Magnavita, A. M., . . . Rosen, R. C. (2020). Randomized controlled trial of a web-based intervention to disseminate clinical practice guidelines for posttraumatic stress disorder: The PTSD Clinicians Exchange. *Journal of Traumatic Stress*. Advance online publication. PTSDpubs ID: 1551074

## Perceived effectiveness and fit are key to PTSD treatment preferences

Understanding what patients want for PTSD treatment – and why – is critical for shared decision-making. In a recent study

by the National Center for PTSD, individuals were asked to rank preferences for evidence-based PTSD treatments and describe reasons for their choices. The investigators surveyed participants from a Web-based research panel who screened positive on the Primary Care-PTSD Screen ( $N = 239$ ; 63.9% male, 50.6% Veteran). Participants read descriptions of treatments recommended in the 2010 VA/DOD Clinical Practice Guideline for PTSD: CPT, PE, EMDR, Stress Inoculation Training (SIT), and antidepressant medications. Participants rank-ordered the treatments and wrote about what influenced their top choices. Almost half of participants (44.6%) picked CPT as their first choice, citing perceived effectiveness, clear treatment rationale, and good personal fit as key reasons. The remainder identified SIT (22.5%), antidepressants (18.5%), PE (12.0%) or EMDR (2.4%) as top choices. Perceived effectiveness and personal fit were common themes across these selections. Those who chose antidepressants cited past positive experiences with medications, but many noted that they also wanted psychotherapy. Replicating these findings with treatment-seeking Veterans and using the treatments recommended in the 2017 VA/DoD Clinical Practice Guideline will be important, as SIT is no longer a first-line treatment recommendation. Determining how best to communicate about effectiveness and personal fit could also enhance providers' capacity for shared decision-making.

Read the article: <https://www.ptsd.va.gov/professional/articles/article-pdf/id1551070.pdf>

Etingen, B., Grubbs, K., & Harik, J. (2020). Drivers of preference for evidence-based PTSD treatment: A qualitative assessment. *Military Medicine*, 185, 303-310. PTSDpubs ID: 1551070

### ASSESSMENT

## Analyzing the PCL-5 using item response theory

Debates over PTSD diagnostic criteria have hinged on clarifying which symptoms are most central to the diagnosis (see the

April 2018 *CTU-Online*). A team led by investigators at Loyola University in New Orleans used item response theory (IRT) to explore the performance of individual items on the PCL-5 in two samples. IRT can clarify what responses to specific items

demonstrate about the underlying trait (e.g., PTSD severity). The researchers first explored which items were most “difficult” (i.e., more likely to be endorsed by those with the most severe PTSD symptoms) among 1,213 trauma-exposed undergraduates and 367 community members. Average PCL-5 scores in the samples were 8.9 and 16.7, respectively. A key finding was that the utility of items varied as a function of PTSD severity. Symptoms such as inability to have positive emotions, detachment, loss of interest, and negative emotions had higher utility at moderate PTSD severity levels, whereas amnesia, reckless behavior, startle, and anger had higher utility at more severe PTSD levels. Another

key finding was the importance of dysphoria symptoms such as detachment and loss of interest that have been excluded from the ICD-11 criteria. With data from clinical samples, results could support the development of a shorter version of the PCL-5.

Read the article: <https://doi.org/10.1016/j.janxdis.2020.102190>

Silverstein, M. W., Petri, J. M., Kramer, L. B., & Weathers, F. W. (2020). An item response theory analysis of the PTSD checklist for DSM-5: Implications for DSM-5 and ICD-11. *Journal of Anxiety Disorders, 70*. PTSDpubs ID: 1551075



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