CLINICIAN'S TRAUMA UPDATE

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TREATMENT

Can brief written exposure treatment be as effective as CPT?

The most recent VA/DoD clinical practice guideline for PTSD recommends written narrative exposure as a type of trauma-focused psychotherapy (see the June 2017 *CTU-Online*). Written Exposure Therapy (WET), a five-session treatment, had not yet been compared to a first-line PTSD treatment. Investigators from the National Center for PTSD used a noninferiority design to compare WET with standard CPT. One hundred twenty-six patients with PTSD were randomized to receive WET or CPT. In WET patients are instructed to write about their index traumatic event for 30 minutes at five weekly sessions. The CPT condition included 12 weekly sessions with the written trauma account and practice assignments between sessions. The investigators compared the effectiveness of WET and CPT using 10 points on the Clinician-Administered PTSD Scale for DSM-5 as the noninferiority margin. PTSD symptoms improved over time in both conditions, with large effects for both WET (d = .82-1.08) and CPT (d = 1.13-1.25) from the 12-week through 36-week posttreatment assessments. Differences between the treatments did not exceed 10 points at any timepoint, indicating that WET was noninferior to CPT. Dropout in the first five sessions was higher for CPT (31.7%) than for WET (6.3%), although there were no differences in treatment expectations or satisfaction. Results provide support for the recommendation of written narrative exposure for treating PTSD, which, in this brief form, may be preferable to some patients.

Read the article: https://doi.org/10.1001/jamapsychiatry.2017.4249

Sloan, D. M., Marx, B. P., Lee, D. J., & Resick, P. A. (2018). A brief exposure-based treatment vs Cognitive Processing Therapy for posttraumatic stress disorder: A randomized noninferiority clinical trial. *JAMA Psychiatry*. PILOTS ID: 49592

Surprising results for prazosin

Findings that prazosin, a medication used for high blood pressure, reduced PTSD-related nightmares has led to widespread use in PTSD patients. A team led by investigators at the VA Northwest Network MIRECC conducted a VA Cooperative Study testing the effects of prazosin on nightmares and sleep quality with the largest sample and longest duration of treatment and follow-up to date. Veterans recruited from 13 VA facilities were randomized to 26 weeks of prazosin (n = 152) or placebo (n = 152). Primary outcomes were trauma-related nightmares, sleep quality, and overall clinical improvement. Prazosin and placebo did not differ at 10-week and 26-week assessments on these outcomes or on secondary outcomes such as overall PTSD symptoms. In discussing their results, the investigators noted that Veterans with current life crises were excluded to reduce risk of suicidal or violent behavior, rendering this sample more generally stable than patients in previous studies. Participants also had lower blood pressure, lower alcohol consumption, and fewer prescriptions for benzodiazepines than is typical for Veterans with PTSD. Prazosin may be more effective among more severely ill patients. This study's findings informed the suggestion in the 2017 VA/DoD Clinical Practice Guideline that prazosin not be prescribed for PTSD symptoms (see the June 2017 *CTU-Online*), and the conclusion that the evidence for PTSD-associated nightmares is insufficient. Future studies and secondary analyses of these data may reveal that prazosin is helpful for specific subsets of patients with PTSD.

Read the article: https://doi.org/10.1056/NEJMoa1507598

Raskind, M. A., Peskind, E. R., Chow, B., Harris, C., Davis-Karim, A., Holmes, H. A., … Huang, G. D. (2018). Trial of prazosin for post-traumatic stress disorder in military veterans. *New England Journal of Medicine, 378*, 507–517. PILOTS ID: 49659

Two weeks of Prolonged Exposure shown to be effective for Army Soldiers

Increasing the efficiency of treatment delivery is a promising area of research. Although there is evidence for intensive cognitive therapy for PTSD (delivered over 2 weeks; see the February 2014 *CTU-Online*), intensive Prolonged Exposure had not been examined—until a recent study by the STRONG STAR Consortium that compared PE delivered over two weeks with standard PE. Participants were 370 Army Soldiers (12% women) randomized to one of four conditions: PE administered according to an intensive schedule, referred to as "massed therapy" (10 sessions over two weeks; *n*=110) or standard ("spaced") therapy (10 sessions over eight weeks; *n*=109); Present-Centered Therapy (PCT, 10 sessions over eight weeks; *n*=107); or minimal contact control (weekly phone calls from therapists for four weeks; *n*=40). At two-weeks posttreatment, massed PE had greater decreases than minimal contact in PTSD symptoms on the PTSD Symptom Scale-Interview (PSS-I; *d*=.56) and PTSD Checklist (*d*=.89), and lower

Take NOTE

Quality of VA mental health services for OEF/OIF/OND Veterans

A report from the National Academies of Sciences, Engineering, and Medicine provides information about the quality of mental health care services for Veterans who served in Iraq and Afghanistan, as well as assessment of access to services and barriers to utilization of services. Analysis revealed that VA mental health services are superior or comparable to those in non-VA settings.

Read the report: http://doi.org/10.17226/24915

National Academies of Sciences, Engineering, and Medicine (2018). *Evaluation of the Department of Veterans Affairs Mental Health Services*. Washington, DC: The National Academies Press. PILOTS ID: 88411

Meta-analysis of efficacy and acceptability of pharmacotherapies for PTSD

A team led by investigators at the University of Oxford conducted a network meta-analysis of double-blind randomized controlled trials comparing pharmacological interventions to placebo. Results suggest small effects for seven select drugs over placebo, with the strongest effects for phenelzine.

Read the article: https://doi.org/10.1017/S003329171700349X

Cipriani, A., Williams, T., Nikolakopoulou, A., Salanti, G., Chaimani, A., Ipser, J., … Stein, D. J. (2017). Comparative efficacy and acceptability of pharmacological treatments for post-traumatic stress disorder in adults: A network meta-analysis. *Psychological Medicine*, 1–10. PILOTS ID: 49594

Meta-analysis of long-term effects of psychotherapy for PTSD

Investigators at Case Western Reserve University conducted a meta-analysis of 32 randomized controlled trials of psychotherapy for PTSD that included at least six-month follow-up. Results revealed that all treatments were associated with improvement, with exposure therapies showing the largest effects in the post-treatment to long-term follow-up period.

Read the article: https://doi.org/10.1016/j.cpr.2017.10.009

Kline, A. C., Cooper, A. A., Rytwinksi, N. K., & Feeny, N. C. (2018). Long-term efficacy of psychotherapy for posttraumatic stress disorder: A meta-analysis of randomized controlled trials. *Clinical Psychology Review*, *59*, 30–40. PILOTS ID: 49533

Meta-analysis of topiramate as monotherapy or adjunctive treatment for PTSD

Investigators at the University of Maryland School of Medicine conducted a meta-analysis of randomized clinical trials of topiramate, which is not recommended for PTSD in the most recent VA/DoD Clinical Practice Guideline (see the June 2017 *CTU-Online*). Results suggest that topiramate has moderate success in treating PTSD, with strongest effects on hyperarousal symptoms.

Read the article: https://doi.org/10.1002/jts.22251

Varma, A., Moore, M. B., Miller, C. W. T., & Himelhoch, S. (2018). Topiramate as monotherapy or adjunctive treatment for posttraumatic stress disorder: A meta-analysis. *Journal of Traumatic Stress*. PILOTS ID: 49660

Review of aripiprazole for PTSD

In a review of six studies of aripiprazole for PTSD, including one placebo-controlled trial, investigators at the Durham VA Medical Center showed that aripiprazole was associated with improvements in PTSD. Aripiprazole is an atypical antipsychotic medication that is not recommended as monotherapy for PTSD in the VA/DoD Clinical Practice Guideline (see the June 2017 *CTU-Online*).

Read the article: http://doi.org/10.1097/WNF.0000000000000251

Britnell, S. R., Jackson, A. D., Brown, J. N., & Capehart, B. P. (2017). Aripiprazole for posttraumatic stress disorder: A systematic review. *Clinical Neuropharmacology, 40*, 273-278. PILOTS ID: 49486

prevalence of PTSD diagnosis (55% vs. 77%). Massed PE was non-inferior to spaced PE for PTSD symptoms and diagnosis at 2- and 12-weeks posttreatment, which suggest that intensive PE is effective for treating PTSD. Findings also lend additional support for PCT given that standard PE did not differ from PCT in effectiveness. The effect sizes in all active conditions were modest but comparable to other studies with Veteran and active duty military samples, suggesting that more work is needed to increase the efficacy of PTSD treatments for these groups.

Read the article: https://doi.org/10.1001/jama.2017.21242

Foa, E. B., McLean, C. P., Zang, Y., Rosenfield, D., Yadin, E., Yarvis, J., . . . for the STRONG STAR Consortium (2018). Effect of Prolonged Exposure therapy delivered over 2 weeks vs 8 weeks vs Present-Centered Therapy on PTSD symptom severity in military personnel: A randomized clinical trial. *JAMA, 319*, 354-364. PILOTS ID: 49595

Predictors of dropout from Prolonged Exposure

Dropout from treatment is a problem across psychological disorders, including PTSD. Investigators at the Ralph H. Johnson VA Medical Center reanalyzed data from a trial of Prolonged Exposure delivered via telehealth versus in-person to identify reasons for treatment discontinuation. Participants were 150 combat Veterans with PTSD who were randomly assigned to PE delivered either in-person or via home-based telehealth. Of the 132 Veterans who attended the first PE session, the 29% who subsequently dropped out (discontinued before completing eight sessions) were more likely to have been assigned to the telehealth condition (odds ratio = 1.97), and to have higher PTSD severity at the last observed measurement (odds ratio = 1.04). Treatment completers were less likely to have a VA service-connected disability (odds ratio = 0.36). The telehealth finding was surprising since the main study showed that the delivery modalities had equally good clinical outcomes and Veteran-rated satisfaction (see the February 2017 *CTU-Online*). The authors suggest that telehealth may be more highly valued by Veterans in underserved, rural communities than by Veterans who live close to a VA facility, which many of these participants did. The service connection result should be interpreted with caution, as it was unclear whether service-connected Veterans had more severe PTSD or if the treatment groups differed with respect to service connection. While telehealth delivery is intended to reduce barriers to receiving care, it may prove to be more useful for some Veterans than others.

Read the article: https://doi.org/10.1017/S135246581700039X

Gros, D. F., Allan, N. P., Lancaster, C. L., Szafranski, D. D., & Acierno, R. (2018). Predictors of treatment discontinuation during Prolonged Exposure for PTSD. *Behavioural and Cognitive Psychotherapy, 46*, 35–49. PILOTS ID: 48473

Providers with certification in delivering Prolonged Exposure have better outcomes

Most studies examining predictors of treatment outcome focus on patient factors without considering therapist characteristics (see the December 2017 *CTU-Online*). Investigators at the VA Medical Center in Philadelphia tested whether response to PE was associated with providers' experience with PE, as well as Veterans' service-connected disability, history of traumatic brain injury, and benzodiazepine prescriptions. The investigators recruited 287 Veterans who received PE in an urban VA facility or surrounding outpatient clinic. Pre- and post-treatment assessments of PTSD, depression, and quality of life were collected as part of routine clinical care and program evaluation. All other data were collected from the Veterans' medical records. Overall, Veterans reported large improvements in PTSD, depression, and quality of life (*d*'s =.9 - 1.3). Veterans who completed at least eight sessions of PE were more likely to have been treated by a PE-certified provider (78.9%) than those who did not complete (53.5%). Regression analyses revealed that PE certification was associated with larger treatment gains while service-connected disability for a mental health condition predicted smaller but still clinically meaningful treatment gains. Benzodiazepine prescriptions and TBI were not associated with PE response, although conclusions are limited by the lack of information about actual benzodiazepine use and severity of TBI. Encouraging providers to complete certification in delivering PE may be an important strategy for maximizing patient outcomes.

Read the article: https://doi.org/10.1037/tra0000260

Goodson, J. T., Helstrom, A. W., Marino, E. J., & Smith, R. V. (2017). The impact of service-connected disability and therapist experience on outcomes from prolonged exposure therapy with veterans. *Psychological Trauma: Theory, Research, Practice, and Policy, 9*, 647–654. PILOTS ID: 46842

Brief treatment for PTSD delivered in primary care shows promise for active duty military

Treating mental health in a primary care setting may increase access to care for those who are reluctant or unable to engage in specialty care. Evidence-based treatments for PTSD, however, are not feasible to deliver in primary care. In a new randomized clinical trial, investigators from the STRONG STAR Consortium tested a brief Prolonged Exposure for Primary Care (PE-PC) treatment for PTSD. Participants were 67 active duty Servicemembers (50 men, 17 women) with PTSD (63%) or subsyndromal PTSD (37%) randomized to receive PC-PE (four 30-minute appointments over four to six weeks) or a minimal contact control. Participants assigned to minimal contact received weekly phone calls to monitor their status for six weeks and then were offered PE-PC. At post-treatment, Servicemembers who received PE-PC had improved more than those who received minimal contact in self-reported PTSD symptoms (*d* = .55) and general distress (*d* = .43). Improvements were maintained at six-month follow-up. Additionally, the proportion of participants with a PTSD diagnosis following treatment was lower in the PE-PC condition (37%) than in MCC (63%). Notably, 82% of participants assigned to receive PE-PC attended all four sessions of treatment. These findings provide initial support for PE-PC as a brief, effective treatment for PTSD delivered in a primary care setting that has the potential to increase the reach of evidence-based PTSD treatment.

Read the article: https://doi.org/10.1037/fsh0000315

Cigrang, J. A., Rauch, S. A., Mintz, J., Brundige, A. R., Mitchell, J. A., Najera, E., . . . for the STRONG STAR Consortium. (2017). Moving effective treatment for posttraumatic stress disorder to primary care: A randomized controlled trial with active duty military. *Families, Systems, & Health, 35*, 450–462. PILOTS ID: 49593

Veterans identify barriers to engaging in trauma-focused psychotherapies within VA

Prolonged Exposure and Cognitive Processing Therapy are increasingly available across VA facilities, but some Veterans decline these treatments. Why? To address this question, investigators at the Michael E. DeBakey VA Medical Center asked Veterans to identify what hindered them from engaging in these effective treatments. Qualitative interviews were conducted with 24 Veterans with PTSD who agreed to a CPT or PE referral in a VA PTSD clinic but did not attend any therapy sessions within the subsequent year. Veterans reported an average of 4.2 barriers (range 1-9), including knowledge barriers (e.g., no recollection of learning about treatments); practical barriers (e.g., employment/college); emotional barriers (e.g., avoidance); and therapy-related barriers (e.g., lack of buy-in). The highest percentage of Veterans (67%) reported VA-system-related barriers, which included general issues like "red tape" (50%) and negative experiences with VA providers (21%). Many of these concerns were not directly related to the VA PTSD clinic or with trauma-focused psychotherapy, and some are not unique to VA mental health treatment settings. In fact, 79% of Veterans reported being satisfied with their involvement in treatment choices and 83% had positive experiences with providers in the PTSD clinic. Findings suggest that strategies targeting overall VA system issues in addition to mental health- or PE/CPT-specific concerns, such as helping Veterans overcome avoidance after referral to PE or CPT, may improve uptake of these treatments.

Read the article: https://doi.org/10.1037/ser0000212

Hundt, N. E., Helm, A., Smith, T. L., Lamkin, J., Cully, J. A., & Stanley, M. A. (2017). Failure to engage: A qualitative study of veterans who decline evidence-based psychotherapies for PTSD. *Psychological Services*. PILOTS ID: 49529

Service dogs added to usual care associated with clinical improvement

Scientific evidence for the utility of service dogs for PTSD is lacking in spite of increasing stakeholder demand and media attention. Investigators at Purdue University used a nonrandomized design to test whether the addition of service dogs to usual care was associated with greater reductions in PTSD symptoms. Servicemembers and Veterans, approximately half of whom were receiving PTSD treatment, had all been approved to receive a service dog and were either on a waiting list (n = 66) or had received a dog between one month and four years before the study (n = 75). Dogs were trained to help participants avert panic attacks, wake from nightmares, create personal space, take medications, and maintain physical stabilization. The primary outcome was change in self-reported PTSD symptom severity measured with the PTSD Checklist-Military version since applying for the service dog. Participants with service dogs had greater reductions in PTSD symptoms than participants on the waitlist (d = -.66). However, on average, participants with service dogs continued to report a level of PTSD symptom severity above a diagnostic threshold. While results are consistent with anecdotal reports, they do not indicate that adding service dogs to usual care is adequate for patients to reach remission. Replication with a randomized clinical trial with standardized assessment timepoints and addition of service dogs to evidence-based treatment is needed.

Read the article: http://doi.org/10.1037/ccp0000267

O'Haire, M. E., & Rodriguez, K. E. (2018). Preliminary efficacy of service dogs as a complementary treatment for posttraumatic stress disorder in military members and veterans. *Journal of Consulting and Clinical Psychology, 86*, 179-188. PILOTS ID: 49597

Propanolol may potentiate trauma memory reactivation treatment

The beta-blocker propranolol has been shown to reduce emotional and physiological responses to traumatic memories, potentially by disrupting memory reconsolidation. Investigators at McGill University tested whether delivering propranolol, versus placebo, before trauma memory reactivation treatment sessions led to greater reductions in PTSD symptoms. Participants (n = 61) with PTSD were enrolled into a randomized, double-blind, placebo-controlled trial that included a six-week treatment phase with propranolol or placebo administered 90 minutes prior to weekly memory reactivation sessions. Sessions included writing and revising a one-page trauma narrative focused on the most distressing aspects of the traumatic event, then reading it aloud and processing with the therapist for 20 minutes. The group receiving propranolol reported greater improvements in PTSD symptoms relative to the placebo group (d = 1.76 and 1.25 respectively) in the intent-to-treat sample with similar results in the completer sample. These effect sizes are promising and support the idea that propranolol could be used to enhance response to exposure-based treatment for PTSD. Future studies can more directly evaluate whether the drug enhances trauma recovery by the hypothesized mechanism: disrupting memory reconsolidation following memory reactivation.

Read the article: https://doi.org/10.1176/appi.ajp.2017.17050481

Brunet, A., Saumier, D., Liu, A., Streiner, D. L., Tremblay, J., & Pitman, R. K. (2018). Reduction of PTSD symptoms with pre-reactivation propranolol therapy: A randomized controlled trial. *American Journal of Psychiatry*. PILOTS ID: 49661

New self-report scales for moral injury

Moral injury has received considerable attention in the past decade, often in the context of stress-related psychopathology in military Servicemembers and Veterans. Although measures of moral injury exist, these either combine both morally injurious events and related symptoms and thus are not ideal for tracking change, do not comprehensively evaluate symptoms such as religious-based concerns, or do not have a military and Veteran focus. To meet the need for a symptom measure for use with Servicemembers and Veterans , two teams of investigators developed questionnaires, each taking an approach that was intended for different applications. Investigators at the University of South Alabama constructed the 17 items comprising the Expressions of Moral Injury-Military Version (EMIS-M) to serve as a screen for "warning signs" of moral injury, with specific emphasis on how it is expressed in military populations. The EMIS-M asks about moral injury in two domains: self-directed (e.g., feeling ashamed, guilty, or viewing oneself as unforgivable because of things done/seen during military service) and other-directed (e.g., lack of trust, feeling betrayed, loss of faith in high power or goodness of humanity). In contrast, investigators at Duke University combined items from other scales to construct the Moral Injury Symptom Scale-Military Version (MISS-M), intended to be a comprehensive, multi-dimensional measure of moral injury that evaluates changes in symptoms over time. Exploratory and confirmatory factor analyses of the 45-item MISS-M revealed a 10-subscale measure including betrayal, guilt, shame, religious issues, loss of faith/hope, moral concern, loss of meaning/purpose, forgiveness, and self-condemnation. Both measures demonstrated strong psychometric properties. Future studies using these scales can advance our knowledge of how moral injury in Servicemembers and Veterans can be more effectively identified and treated.

Read the article: https://doi.org/10.1002/cpp.2170

Currier, J. M., Farnsworth, J. K., Drescher, K. D., McDermott, R. C., Sims, B. M., & Albright, D. L. (2017). Development and evaluation of the Expressions of Moral Injury Scale-Military Version. *Clinical Psychology & Psychotherapy*. PILOTS ID: 49578

Read the article: https://doi.org/10.1007/s10943-017-0531-9

Koenig, H. G., Ames, D., Youssef, N. A., Oliver, J. P., Volk, F., Teng, E. J., . . . Pearce, M. (2018). The Moral Injury Symptom Scale-Military Version. *Journal of Religion and Health, 57*, 249–265. PILOTS ID: 49596

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