CLINICIAN'S TRAUMA UPDATE

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TREATMENT

Evaluation of measurement-based care in VA

VA is in its second year of an initiative to implement measurement-based care (MBC) across the healthcare system. MBC entails the systematic use of measurement in clinical decision-making and treatment planning, which can help both patients and providers. In two studies, one quantitative and one qualitative, investigators examined the effectiveness of VA's MBC implementation plan. Investigators at the Edward Hines Jr. VAMC in Chicago, which served as one of the MBC pilot sites, evaluated the implementation of MBC in their large primary care-mental health integration program. The authors describe the implementation plan and how it was modified to fit their setting. Strategies included education about benefits of MBC, providing support and facilitation of MBC, providing feedback to providers, and efforts to normalize the use of measurement in clinical practice. A total of 24 staff members and 21 trainees received training in MBC. Changes in providers' behavior over 18 months were assessed using clinic data and self-report data from providers. Providers administered more symptom measures per encounter and per patient, relative to measurement prior to the pilot. Providers also were more likely to share data with patients. Clinician attitudes toward MBC, collected via qualitative interviews, were positive overall.

A team led by investigators at RAND Corporation also explored provider attitudes by interviewing 20 MBC site champions and 60 staff members from 25 VA Medical Centers. They examined barriers and facilitators of 3 aspects of MBC implementation: preparation for implementation, administration of measures, and using and sharing data with patients. Staff members described the importance of training and staff buy-in when preparing to use MBC and the need for streamlining of data collection and display for patients via technology. Consistent with the goals of MBC and consistent with the findings of the investigators at Hines, providers reported using MBC data to monitor symptom change, provide feedback to patients, and engage patients in shared decision-making—although they also indicated that time limitations interfered with their ability to implement MBC. Future research can examine whether addressing the barriers identified by these providers facilitates the utilization of MBC, and if effects are stronger when the unique needs of clinical settings are taken into account.

Read the articles:

https://www.ptsd.va.gov/professional/articles/article-pdf/id1516899.pdf

Brooks Holliday, S., Hepner, K. A., Farmer, C. M., Ivany, C., Iyiewuare, P., McGee-Vincent, P., . . . Rosen, C. S. (2019). A qualitative evaluation of Veterans Health Administration's implementation of measurement-based care in behavioral health. *Psychological Services*. Advance online publication. PTSDpubs ID: 1516899

https://doi.org/10.1037/ser0000370

Goldstein, D. A., Meyers, K., Endsley, M., & Zerth, E. O. (2019). Measurement-based care implementation in a Veterans Affairs primary care-mental health integration program. *Psychological Services*. Advance online publication. PTSDpubs ID: 1516905

Take NOTE

Review of the development of the ISTSS treatment guideline for PTSD

Members of the ISTSS Guidelines Committee published a description of the methodology behind the development of the ISTSS Guidelines for the Prevention and Treatment of PTSD, which was released in 2018.

Read the article: https://www.ptsd.va.gov/professional/articles/article-pdf/id52226.pdf

Bisson, J. I., Berliner, L., Cloitre, M., Forbes, D., Jensen, T. K., Lewis, C., . . . Shapiro, F. (2019). The International Society for Traumatic Stress Studies new guidelines for the prevention and treatment of posttraumatic stress disorder: methodology and development process. *Journal of Traumatic Stress, 32*, 475-483. PTSDpubs ID: 52226

Systematic review of cannabinoids for PTSD

A team led by investigators at University College London reviewed studies in which individuals with PTSD used cannabinoids for the purpose of reducing PTSD symptoms. Only 1 of the 10 studies was an RCT. The authors concluded that the current evidence base is too limited for clinical recommendations about cannabinoids for PTSD.

Read the article: https://doi.org/10.1080/15504263.2019.1652380

Hindocha, C., Cousijn, J., Rall, M., & Bloomfield, M. A. P. (2019). The effectiveness of cannabinoids in the treatment of posttraumatic stress disorder (PTSD): A systematic review. *Journal of Dual Diagnosis*. Advance online publication. PTSDpubs ID: 1516907

Systematic review and meta-analysis of internet-based CBT for PTSD

Investigators at Cardiff University conducted a systematic review and meta-analysis of 10 studies of internet-based CBT (i-CBT) for PTSD. The results suggested that i-CBT is more effective than waitlist, but the authors qualified that the studies had many limitations, including lack of follow-up data in 7 of the 10 studies.

Read the article: https://doi.org/10.1111/acps.13079

Lewis, C., Roberts, N. P., Simon, N., Bethell, A., & Bisson, J. I. (2019). Internet-based cognitive behavioural therapy (i-CBT) for post-traumatic stress disorder (PTSD): systematic review and meta-analysis. *Acta Psychiatrica Scandinavica*. Advance online publication. PTSDpubs ID: 52286

Virtual reality for PTSD

In a systematic review and meta-analysis of 18 studies of virtual reality exposure therapy for PTSD, investigators at Chaohu Clinical Medical College in China found a moderate effect size for virtual reality compared to control conditions, with a stronger effect observed in studies comparing virtual reality to inactive controls (g = 0.017) than active controls (g = 0.327).

Read the article: https://doi.org/10.1016/j.jad.2019.07.086

Deng, W., Hu, D., Xu, S., Liu, X., Zhao, J., Chen, Q., . . . Li, X. (2019). The efficacy of virtual reality exposure therapy for PTSD symptoms: a systematic review and meta-analysis. *Journal of Affective Disorders, 257*, 698-709. PTSDpubs ID: 52283

Meta-analysis of predictors of response to first-line psychotherapies for PTSD

A team led by investigators at the University of Texas Health Science Center conducted a meta-analysis of predictors of response in 28 clinical trials of PE, CPT, and EMDR, with a focus on effects of different trauma types and populations (i.e., military vs. non-military).

Read the article: https://doi.org/10.1016/j.janxdis.2019.102133

Straud, C. L., Siev, J., Messer, S., & Zalta, A. K. (2019). Examining military population and trauma type as moderators of treatment outcome for first-line psychotherapies for PTSD: A meta-analysis. *Journal of Anxiety Disorders, 67*. PTSDpubs ID: 1516912

Systematic review of studies of mental and physical health comorbidities in women Veterans

Investigators at the VISN 17 Center of Excellence for Returning War Veterans reviewed 21 studies of comorbid mental health (e.g., PTSD, depression) and physical health conditions (e.g., cardiovascular disease, diabetes) and associated health behaviors in women Veterans.

Read the article: https://doi.org/10.1080/08964289.2019.1644283

Creech, S. K., Pulverman, C. S., Crawford, J. N., Holliday, R., Monteith, L. L., Lehavot, K., . . . Kelly, U. A. (2019). Clinical complexity in women veterans: A systematic review of the recent evidence on mental health and physical health comorbidities. *Behavioral Medicine*. Advance online publication. PTSDpubs ID: 1516902

More evidence that initial response to PE and CPT predicts overall benefit

A full course of evidence-based psychotherapy for PTSD is typically 10-12 sessions. But what if a provider could know earlier in treatment if a patient were more or less likely to benefit? A team led by investigators at VA Ann Arbor used national VA data to examine predictors of early response (within 8 sessions), late response (after 8 sessions), and non-response. The investigators studied a cohort of 2,285 VA patients with a PTSD diagnosis who received at least 8 sessions of either PE or CPT within 6 months of FY 2016-2017 and completed at least 2 PCL-5s within 2 weeks of the baseline and 8th session. A total of 24% of Veterans achieved meaningful change, defined as 50% reduction in PCL-5 score—14% within 8 sessions and 10% after 8 sessions. The strongest predictor of overall change was improvement within the first 8 sessions; Veterans who had 20% symptom reduction by session 8 were twice as likely to achieve meaningful change when compared to all patients who persisted past 8 sessions. Results were similar for Veterans engaged in PE vs. CPT. Findings are in line with previous work showing that initial response to PE predicted benefit from subsequent sessions (see the December 2018 *CTU-Online*). Veterans who do not show adequate improvement within the first 8 sessions may benefit from changing treatment course.

Read the article: https://doi.org/10.1016/j.beth.2019.05.003

Sripada, R. K., Ready, D. J., Ganoczy, D., Astin, M. C., & Rauch, S. A. M. (2019). When to change the treatment plan: An analysis of diminishing returns in VA patients undergoing prolonged exposure and cognitive processing therapy. *Behavior Therapy*. Advance online publication. PTSDpubs ID: 1516911

New studies explore dropout from evidence-based treatments for PTSD in Veterans

Despite the efficacy of trauma-focused treatments for PTSD, many patients do not complete a full course of therapy. Understanding the reasons why patients drop out of treatment could inform strategies to improve treatment completion. Three recent studies in Veteran samples examined predictors of dropout from evidence-based treatment for PTSD.

One study explored non-attendance in CPT and VA usual care. Investigators from VA Puget Sound Healthcare System examined baseline and 6-monh follow-up data from a pragmatic randomized effectiveness trial of a collaborative care telemedicine intervention in 11 VA community-based clinics. Veterans (N = 265) were classified into categories related to attendance: Completed, Still Attending, Inconsistent Attendance (attending <75% of sessions), Stopped Attending, or Did Not Attend. Self-reported treatment completion was higher for Veterans receiving CPT (25%) than those attending non-evidence-based PTSD-focused individual (4.4%) and group therapy (15.5%). However, inconsistent attendance (13%) and early discontinuation (18%) were also more common among Veterans attending CPT compared with other forms of therapy (inconsistent attendance—individual: 2.2%, group: 6.9%; early discontinuation—individual: 14.6%; group: 10.3%). The authors suggest this is likely due to the more frequent scheduling of CPT sessions relative to other forms of treatment. Veterans who did not attend, stopped treatment, or had inconsistent attendance were asked about their reasons for non-attendance from a list of possible options. Although 26% of non-attenders scheduled for CPT reported thinking that treatment would not help, across all therapies, logistical issues such as scheduling conflicts and transportation were the most cited reasons for non-attendance.

Read the article: https://doi.org/10.1037/ser0000375

Another study used a large VA dataset to determine predictors of dropout from PE. Investigators from the National Center for PTSD examined data from 2,606 Veterans treated by providers undergoing training in the national VA PE Training Program. Potential predictors of dropout included Veterans' demographic characteristics, PTSD and depression symptoms at intake, lifetime trauma types, and type of traumatic event serving as the index trauma for treatment. Seventy percent of the sample completed 8 or more sessions of PE. Of the potential demographic factors, only younger age predicted higher risk of dropout (OR = 0.97 per year, p <.001). Baseline self-reported PTSD and depression symptoms did not predict dropout, nor did type of lifetime trauma exposure. An index event of childhood trauma predicted less likelihood of treatment dropout. Dropout was unrelated to trajectory of symptom change. Although clinicians reported that 45% of dropouts were due to not tolerating PE (i.e., increased distress: 36%, treatment avoidance: 9%), symptom worsening between sessions was not associated with subsequent dropout.

Read the article: https://www.ptsd.va.gov/professional/articles/article-pdf/id1516904.pdf

A study led by investigators from the VA North Texas Healthcare System examined psychosocial predictors of dropout in a sample of 56 female Veterans who received CPT for military sexual trauma-related PTSD as part of a randomized clinical trial. Dropout was defined both continuously (number of sessions attended) and dichotomously (attending less than 6 sessions). No sociodemographic factors nor baseline symptoms predicted treatment dropout. More positive treatment expectancy, lower trauma-related negative cognitions about others and the world, and higher levels of negative cognitions about self-blame predicted greater number of sessions attended. When defined dichotomously, greater negative cognitions about self-blame and lesser negative cognitions about the self-predicted session attendance. The authors suggest that because CPT targets self-blame cognitions, Veterans endorsing high levels of these beliefs may be more likely to remain in treatment. Additionally, findings indicate that those with higher levels of self-efficacy may also be more likely to complete.

Read the article: https://doi.org/10.1016/j.psychres.2019.04.022

Across studies, variations in study populations and definitions of treatment dropout make generalization of the results difficult.

However, the lack of definitive findings regarding the role of patient symptoms or trauma history on dropout suggests that these factors should not be used to determine who is offered an evidence-based treatment for PTSD. Instead, addressing logistical barriers and beliefs about treatment, as well as improving Veterans' perceptions of self-efficacy, may help improve engagement and treatment completion.

Browne, K. C., Chen, J. A., Hundt, N. E., Hudson, T. J., Grubbs, K. M., & Fortney, J. C. (2019). Veterans self-reported reasons for non-attendance in psychotherapy for posttraumatic stress disorder. *Psychological Services*. Advance online publication. PTSDpubs ID: 1516900

Eftekhari, A., Crowley, J. J., Mackintosh, M. A., & Rosen, C. S. (2019). Predicting treatment dropout among veterans receiving prolonged exposure therapy. *Psychological Trauma*. Advance online publication. PTSDpubs ID: 1516904

Holder, N., Holliday, R., Wiblin, J., LePage, J. P., & Suris, A. (2019). Predictors of dropout from a randomized clinical trial of cognitive processing therapy for female veterans with military sexual trauma-related PTSD. *Psychiatry Research, 276*, 87-93. PTSDpubs ID: 52240

An examination of guilt in PTSD treatment among active duty Servicemembers

Some providers think that PE does not adequately treat guilt, and may even be contraindicated for patients with high levels of guilt. A team led by investigators at the National Center for PTSD was the first to examine this issue among active duty Servicemembers. The investigators analyzed data from an RCT of PE delivered in 2 different formats (spaced PE: 10 sessions over 8 weeks vs. massed PE: 10 sessions over 2 weeks) compared to present-centered therapy (PCT) and a minimal contact control group (MCC). Participants included 331 Servicemembers with PTSD who served in Iraq or Afghanistan. Baseline guilt did not predict PTSD outcomes in spaced PE or PCT; massed PE was not included in this analysis. In the comparison of massed PE and MCC, all three guilt subscales decreased in both conditions, but did not differ between groups (*d*'s = .14, .16, and -.01). The same pattern emerged in the comparison of spaced PE and PCT (*d*'s = 0.03 and 0.08), except for a greater reduction in the "lack of justification" subscale of the guilt measure at posttreatment in spaced PE than PCT (*d* = -.15). The authors attributed this effect to baseline differences. It is hard to make conclusions about the effects of PE on guilt given that baseline guilt was lower in this sample than in previous studies. The authors provide thoughtful discussion how this issue may have affected their findings.

Read the article: https://www.ptsd.va.gov/professional/articles/article-pdf/id52268.pdf

McLean, C. P., Zandberg, L., Brown, L., Zang, Y., Benhamou, K., Dondanville, K. A., . . . STRONG STAR Consortium. (2019). Guilt in the treatment of posttraumatic stress disorder among active duty military personnel. *Journal of Traumatic Stress, 32*, 616-624. PTSDpubs ID: 52268

ASSESSMENT

A brief screen for PTSD based on the PCL-5

Investigators from Harvard Medical School have developed a short form of the PTSD Checklist for DSM-5 for screening in a variety of settings. Screening is an important part of the continuum of care—an efficient way to identify individuals in need of treatment or at risk of worsening health. VA uses the 5-item PC-PTSD-5 to screen for PTSD in primary care. The investigators analyzed data from the Army Study to Assess Risk and Resilience in Service Members, a study of risk and protective factors in OEF/OIF soldiers. They performed advanced statistical tests to determine the items that corresponded optimally to probable diagnoses based on the full PCL-5 when scored in 4 ways, ranging from lenient to stringent. There were over 8,000 service members and recent Veterans in the training sample and almost 12,000 in the validation sample. The optimal scale had 4 items, one from each of the B-E diagnostic criteria from DSM-5, and because PCL-5 items are scored 0-4, the short form scale could range from 0-16. The investigators do not recommend a diagnostic cutpoint, saying that this could be tailored to a setting. As next steps, it would be helpful to study the scale among Veterans from other branches of service and eras and among non-Veterans, establish psychometric properties using a clinician-administered scale like the CAPS-5, and compare the scale with screens such as the PC-PTSD-5.

Read the article: https://www.ptsd.va.gov/professional/articles/article-pdf/id52290.pdf

Zuromski, K. L., Ustun, B., Hwang, I., Keane, T. M., Marx, B. P., Stein, M. B., . . . Kessler, R. C. (2019). Developing an optimal short-form of the PTSD Checklist for DSM-5 (PCL-5). *Depression and Anxiety, 36*, 790-800. PTSDpubs ID: 52290

Biomarkers for PTSD

A new study by researchers with the PTSD Systems Biology Consortium reports on biomarkers of PTSD in Veterans. Having accurate and reliable biological markers for PTSD could improve diagnosis, prognosis, and treatment selection. The investigators recruited 165 combat Veterans and performed diagnostic and physiological assessments at baseline and after three years (when 68 Veterans returned). From over one million potential biomarkers, 343 markers were selected, including genetic, transcription, molecular, and protein-based factors, as well as physiological markers such as heart rate. Sophisticated data reduction analyses led to a set of 28 biomarkers that optimally predicted which Veterans had PTSD at either baseline or follow-up. The 28 biomarkers identified in the initial cohort were subsequently tested in a new cohort of 58 Veterans and showed 81% accuracy (85% sensitivity, 77% specificity) in predicting PTSD–much better than what would be expected by chance

alone. Additionally, the 28 biomarkers also predicted PTSD severity and were more accurate in predicting PTSD among Veterans with comorbid depression than among those with PTSD alone. This study represents an important step in identifying biomarkers of PTSD. However, the diagnostic accuracy of the 28 biomarkers is not better than currently available questionnaires, such as the PCL-5. Further research will be needed to develop a more robust biological marker of PTSD and identify markers that better predict risk, trajectory of illness and individualized treatment response.

Read the article: https://doi.org/10.1038/s41380-019-0496-z

Dean, K. R., Hammamieh, R., Mellon, S. H., Abu-Amara, D., Flory, J. D., Guffanti, G., . . . Marmar, C. (2019). Multi-omic biomarker identification and validation for diagnosing warzone-related post-traumatic stress disorder. *Molecular Psychiatry*. Advance online publication. PTSDpubs ID: 1516903

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