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## Research Update -- July 5, 2018

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- Performance and Symptom Validity Testing as a Function of Medical Board Evaluation in U.S. Military Service Members with a History of Mild Traumatic Brain Injury.
- Links of Interest
- Resource of the Week: VA National Suicide Data Report 2005–2015

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https://jamanetwork.com/journals/jamapsychiatry/article-abstract/2686050

**Effect of Repetitive Transcranial Magnetic Stimulation on Treatment-Resistant Major Depression in US Veterans: A Randomized Clinical Trial.**

Yesavage JA, Fairchild JK, Mi Z, et al.

JAMA Psychiatry
Published online June 27, 2018
doi:10.1001/jamapsychiatry.2018.1483

Key Points

Question
Is repetitive transcranial magnetic stimulation an efficacious treatment for treatment-resistant major depression in patients who are veterans?

Findings
In this randomized clinical trial of 164 US veterans with depression, the overall remission rate was 39%, with no significant difference between the active and sham groups. Patients with comorbid posttraumatic stress disorder showed the least improvement.

Meaning
These findings may reflect the importance of close clinical surveillance, rigorous monitoring of concomitant medication, and regular interaction with clinic staff in bringing about significant improvement in this treatment-resistant population.

Abstract

Importance
Treatment-resistant major depression (TRMD) in veterans is a major clinical challenge given the high risk for suicidality in these patients. Repetitive transcranial magnetic stimulation (rTMS) offers the potential for a novel treatment modality for these veterans.

Objective
To determine the efficacy of rTMS in the treatment of TRMD in veterans.

Design, Setting, and Participants
A double-blind, sham-controlled randomized clinical trial was conducted from September 1, 2012, to December 31, 2016, in 9 Veterans Affairs medical centers. A total of 164 veterans with TRD participated.

Interventions
Participants were randomized to either left prefrontal rTMS treatment (10 Hz, 120% motor threshold, 4000 pulses/session) or to sham (control) rTMS treatment for up to 30 treatment sessions.

Main Outcomes and Measures
The primary dependent measure of the intention-to-treat analysis was remission rate (Hamilton Rating Scale for Depression score ≤10, indicating that depression is in remission and not a clinically significant burden), and secondary analyses were conducted on other indices of posttraumatic stress disorder, depression, hopelessness, suicidality, and quality of life.

Results
The 164 participants had a mean (SD) age of 55.2 (12.4) years, 132 (80.5%) were men, and 126 (76.8%) were of white race. Of these, 81 were randomized to receive active rTMS and 83 to receive sham. For the primary analysis of remission, there was no significant effect of treatment (odds ratio, 1.16; 95% CI, 0.59-2.26; P = .67). At the end of the acute treatment phase, 33 of 81 (40.7%) of those in the active treatment group achieved remission of depressive symptoms compared with 31 of 83 (37.4%) of those in the sham treatment group. Overall, 64 of 164 (39.0%) of the participants achieved remission.

Conclusions and Relevance
A total of 39.0% of the veterans who participated in this trial experienced clinically significant improvement resulting in remission of depressive symptoms; however, there was no evidence of difference in remission rates between the active and sham treatments. These findings may reflect the importance of close clinical surveillance, rigorous monitoring of concomitant medication, and regular interaction with clinic staff in bringing about significant improvement in this treatment-resistant population.

Trial Registration - ClinicalTrials.gov Identifier: NCT01191333

See also -- The Search for Treatments for Veterans With Major Depression: Of Paramount Importance, Yet Still Elusive (editorial)

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22285

**Description and Preliminary Outcomes of an In Vivo Exposure Group Treatment for Posttraumatic Stress Disorder.**

Eliora Porter, Erin G. Romero, Melissa D. Barone

Journal of Traumatic Stress
First published: 20 June 2018
https://doi.org/10.1002/jts.22285

Prolonged exposure (PE) therapy is traditionally delivered individually to patients. To engage more veterans in care, an in vivo exposure group treatment was developed in an urban VA medical center. This treatment represented a modification of the in vivo exposure portion of PE, with the addition of in-session, therapist-assisted in vivo exposures. Here, we describe this 12-week treatment and present preliminary outcome data. Demographics and pre- and posttreatment scores on the PTSD Checklist–Specific (PCL-S) and Beck Depression Inventory–II (BDI-II) were extracted from a program evaluation database. The sample included veterans with a diagnosis of posttraumatic stress disorder (PTSD) who participated in the in vivo exposure group between October 2010 and March 2014 and had available treatment outcome data (N = 43). The majority of participants in the sample were male (n = 41, 95.3%) and Black (n = 34, 79.1%). Participation in the in vivo group was associated with a significant decrease in PCL-S scores, with a medium-large effect size, $t(42) = 5.35$, $p < .001$, $d = 0.73$, and a significant decrease in BDI-II scores, with a small effect size, $t(38) = 2.55$, $p = .015$, $d = 0.23$. Previous participation in an evidenced-based treatment (EBT) was not associated with symptom change following the in vivo group. Findings suggest that in vivo exposure group therapy constitutes a promising intervention for individuals who decline EBTs or remain symptomatic after completing an EBT for PTSD. Further study of this treatment using a randomized controlled trial design is warranted.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22289?campaign=wolearlyview

**Impact of Self-Blame on Cognitive Processing Therapy: A Comparison of Treatment Outcomes.**

Laura E. Stayton, Benjamin D. Dickstein, Kathleen M. Chard

Journal of Traumatic Stress
First published: 20 June 2018
https://doi.org/10.1002/jts.22289

Research suggests that cognitive processing therapy (CPT) may be a particularly well-suited intervention for trauma survivors who endorse self-blame; however, no study has examined the impact of self-blame on response to CPT. Accordingly, the current study compared response to CPT between two groups of veterans seeking residential treatment for posttraumatic stress disorder (PTSD). In one group, participants endorsed low self-blame at pretreatment (n = 133) and in the other group, participants endorsed high self-blame (n = 133). Results from multilevel modeling analysis suggest that both groups experienced significant reductions in PTSD symptoms as measured by the PTSD Checklist, B = −1.58, SE = 0.11; 95% CI [−1.78, −1.37]; t(1654) = −14.97, p < .001. After controlling for pretreatment symptom severity and additional covariates, there was no difference in treatment response between the low- and high-self-blame groups, Time × Self-blame interaction: B = 0.18, SE = 0.12; 95% CI = [−0.06, 0.42]; t(1646) = 1.49, p = .138. This suggests that CPT is an effective treatment for individuals exposed to trauma, regardless of level of self-blame.

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https://www.liebertpub.com/doi/abs/10.1089/neu.2017.5243

**Sleep, sleep disorders, and circadian health following mild traumatic brain injury: Review and research agenda.**

Dr. Emerson Wickwire, Dr. David M. Schnyer, Dr. Anne Germain, Dr. Scott Williams, Dr. Christopher Lettieri, Dr. Ashlee McKeon, Dr. Steven Scharf, Dr. Ryan Stocker, Dr. Jennifer S Albrecht, Dr. Neeraj Badjatia, Ms. Amy Markowitz, and Dr. Geoffrey Manley

Journal of Neurotrauma
Online Ahead of Editing: June 7, 2018
http://doi.org/10.1089/neu.2017.5243

A rapidly expanding scientific literature supports the frequent co-occurrence of sleep and circadian disturbances following mild traumatic brain injury (mTBI). Although many questions remain unanswered, the preponderance of evidence suggests that sleep and

circadian disorders can result from mTBI. Among those with mTBI, sleep disturbances and clinical sleep and circadian disorders contribute to the morbidity and long-term sequelae across domains of functional outcomes and quality of life. Specifically, along with deterioration of neurocognitive performance, insufficient and disturbed sleep can precede, exacerbate, or perpetuate many of the other common sequelae of mTBI, including depression, post-traumatic stress disorder, and chronic pain. Further, sleep and mTBI share neurophysiologic and neuroanatomic mechanisms that likely bear directly on success of rehabilitation following mTBI. For these reasons, focus on disturbed sleep as a modifiable treatment target has high likelihood of improving outcomes in mTBI. Here, we review relevant literature and present a research agenda to 1) advance understanding of the reciprocal relationships between sleep and circadian factors and mTBI sequelae and 2) advance rapidly the development of sleep-related treatments in this population.

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https://link.springer.com/article/10.1007/s12207-018-9322-1

**Impact of Common Mental Health Disorders on Cognition: Depression and Posttraumatic Stress Disorder in Forensic Neuropsychology Context.**

Schultz, I.Z., Sepehry, A.A. & Greer, S.C.

Psychological Injury and Law
First Online: 08 June 2018
https://doi.org/10.1007/s12207-018-9322-1

The assessment and diagnosis of posttraumatic stress disorder (PTSD) and depression in forensic evaluations may lack an acknowledgement of the neurocognitive impact of these disorders and how they interact with other causative factors, such as traumatic brain injury (TBI), pain or fatigue. Both PTSD and depression have a complex, growing and consolidating neuroscientific and neuropsychological evidence base, and both can affect neuropsychological test results. In forensic neuropsychological assessments, they are often considered to be confounding factors in evaluating TBI and neurodegenerative disorders but not a source of cognitive impairment in their own right. Yet, an accurate neuropsychological assessment of both cognition and affect is vital to causality determination, prognosis and treatment planning. To complicate matters, selective brain injuries, contingent on the location of injury, can produce symptoms of depression that also affect the neurocognitive profile. Therefore, behavior can overlap not only due to overlapping or comorbid diagnoses, but also due to similar neuroanatomical correlates

of both conditions. This paper focuses on reviewing and integrating the available empirical evidence from neuroscience and neuropsychology regarding the cognitive impact of PTSD and depression. Our critical review will emphasize the implications of the more recent evidence for forensic assessment determinations regarding causality, diagnosis, and the impact on function, prognosis and treatment. Hence, electronic search engines, PubMed, PsycINFO, and Google Scholar (up to January 2018) were screened and reviewed both for the neuroscience and neuropsychological literature related to depression and PTSD.

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http://psycnet.apa.org/record/2018-26104-003

**Predicting treatment response to cognitive rehabilitation in military service members with mild traumatic brain injury.**

Vanderploeg, R. D., Cooper, D. B., Curtiss, G., Kennedy, J. E., Tate, D. F., & Bowles, A. O.

Rehabilitation Psychology
2018; 63(2), 194-204
http://dx.doi.org/10.1037/rep0000215

Objective:
Determine factors that affect responsiveness to cognitive rehabilitation (CR) interventions in service members (SMs) who sustained mild traumatic brain injury (mTBI).

Method:
126 SMs with a history of mTBI 3 to 24 months postinjury participated in a randomized clinical trial of one of four, 6-week treatment arms: (a) psychoeducation, (b) computer-based CR, (c) therapist-directed manualized CR, and (d) therapist-directed CR integrated with cognitive–behavioral psychotherapy. Practice-adjusted reliable change scores (RCS) were calculated for the three primary outcome measures: Paced Auditory Serial Addition Test (PASAT), Symptom Checklist-90 Revised (SCL-90–R) Global Severity Index (GSI), and Key Behaviors Change Inventory (KBCI). Hierarchical logistic regression was used to predict RCS. Variables considered were: (a) demographic, (b) injury characteristics, (c) comorbid mental health conditions, (d) nonspecific treatment variables (i.e., team vs. no-team milieu), and (e) specific treatment elements.

Results:
No predictor variables were associated with RCS improvements on the PASAT or the SCL-90–R. Comorbid depression (p< .02) and team-treatment milieu (p < .02) were associated with RCS improvement on the KBCI. Specific CR (ps > .65) and psychotherapy treatments (p >.26) were not associated with improvements on any outcome. There was evidence that self-administered computer CR was not only not beneficial, but negatively associated with cognitive and neurobehavioral improvement.

Conclusions:
Although reliable improvements were found on the PASAT and KBCI, no specific treatment intervention effects were found. Rather, comorbid depression and team-milieu treatment environment were associated with improvement, but only on the KBCI. Comorbid depression was associated with higher rates of improvement. 

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https://link.springer.com/article/10.1007/s00127-018-1542-x

**Longitudinal patterns of PTSD symptom classes among US National Guard service members during reintegration.**

Bohnert, K.M., Sripada, R.K., Ganoczy, D. et al.

Social Psychiatry and Psychiatric Epidemiology
First Online: 09 June 2018
https://doi.org/10.1007/s00127-018-1542-x

Purpose
The purpose of this study was to identify posttraumatic stress disorder (PTSD) symptom groups and assess their longitudinal progression during their first year of reintegration among United States (US) National Guard (NG) service members.

Methods
A cohort of NG service members (n = 886) completed surveys at 6 and 12 months following their return from deployment to Iraq or Afghanistan. Latent class analysis (LCA) and latent transition analysis (LTA) were used to empirically derive groups based on their PTSD symptoms and examine their longitudinal course, respectively.

Results
The best fitting model at both assessments was the four-class model, comprising an asymptomatic class (6 months = 54%; 12 months = 55%), a mild symptom class with elevated hyperarousal symptoms (6 months = 22%; 12 months = 17%), a moderate symptom class (6 months = 15%; 12 months = 15%), and a severe symptom class (6 months = 10%; 12 months = 13%). Based on LTA, stability of class membership at the two assessments was 0.797 for the asymptomatic class, 0.453 for the mild class, 0.560 for the moderate class, and 0.580 for the severe class. Estimated transition probabilities were greater with respect to transitioning to less severe, rather than more severe, classes over time.

Conclusions
The four latent PTSD classes were distinguished primarily by severity; however, the mild symptom class was characterized by higher levels of hyperarousal than other symptoms. Although the absolute number of individuals within classes remained fairly constant between 6 and 12 months, there was movement between severity classes. Most NG service members without symptoms continued to do well during the first year, with only an estimated 7% moving to the moderate or severe class.

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https://www.sciencedirect.com/science/article/pii/S0022395618301559

**Neural circuitry changes associated with increasing self-efficacy in Posttraumatic Stress Disorder.**

Roseann F. Titcombe-Parekh, Jingyun Chen, N. Nadia Rahman, Nicole Kouri, ... Adam D. Brown

Journal of Psychiatric Research
Available online 9 June 2018
https://doi.org/10.1016/j.jpsychires.2018.06.009

Cognitive models suggest that posttraumtic stress disorder (PTSD) is maintained, in part, as a result of an individual's maladaptive beliefs about one's ability to cope with current and future stress. These models are consistent with considerable findings showing a link between low levels of self-efficacy and PTSD. A growing body of work has demonstrated that perceptions of self-efficacy can be enhanced experimentally in healthy subjects and participants with PTSD, and increasing levels of self-efficacy improves performance on cognitive, affective, and problem-solving tasks. This study

aimed to determine whether increasing perceptions of self-efficacy in participants with PTSD would be associated with changes in neural processing. Combat veterans (N = 34) with PTSD were randomized to either a high self-efficacy (HSE) induction, in which they were asked to recall memories associated with successful coping, or a control condition before undergoing resting state fMRI scanning. Two global network measures in four neural circuits were examined. Participants in the HSE condition showed greater right-lateralized path length and decreased right-lateralized connectivity in the emotional regulation and executive function circuit. In addition, area under receiver operating characteristics curve (AUC) analyses found that average connectivity (.71) and path length (.70) moderately predicted HSE group membership. These findings provide further support for the importance of enhancing perceived control in PTSD, and doing so may engage neural targets that could guide the development of novel interventions.

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https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-018-1782-z

**Depression and the relationship between sleep disturbances, nightmares, and suicidal ideation in treatment-seeking Canadian Armed Forces members and veterans.**

J. Don Richardson, , Lisa King, Kate St. Cyr, Philippe Shnaider, Maya L. Roth, Felicia Ketcheson, Ken Balderson and Jon D. Elhai

BMC Psychiatry
2018 18:204
https://doi.org/10.1186/s12888-018-1782-z

Background
Research on the relationship between insomnia and nightmares, and suicidal ideation (SI) has produced variable findings, especially with regard to military samples. This study investigates whether depression mediated the relationship between: 1) sleep disturbances and SI, and 2) trauma-related nightmares and SI, in a sample of treatment-seeking Canadian Armed Forces (CAF) personnel and veterans (N = 663).

Method
Regression analyses were used to investigate associations between sleep disturbances or trauma-related nightmares and SI while controlling for depressive symptom severity, posttraumatic stress disorder (PTSD) symptom severity, anxiety symptom severity, and

alcohol use severity. Bootstrapped resampling analyses were used to investigate the mediating effect of depression.

Results
Approximately two-thirds of the sample (68%; N = 400) endorsed sleep disturbances and 88% (N = 516) reported experiencing trauma-related nightmares. Although sleep disturbances and trauma-related nightmares were both significantly associated with SI on their own, these relationships were no longer significant when other psychiatric conditions were included in the models. Instead, depressive symptom severity emerged as the only variable significantly associated with SI in both equations. Bootstrap resampling analyses confirmed a significant mediating role of depression for sleep disturbances.

Conclusions
The findings suggest that sleep disturbances and trauma-related nightmares are associated with SI as a function of depressive symptoms in treatment-seeking CAF personnel and veterans. Treating depression in patients who present with sleep difficulties may subsequently help mitigate suicide risk.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jclp.22651

**Examining the effectiveness of an intensive, 2-week treatment program for military personnel and veterans with PTSD: Results of a pilot, open-label, prospective cohort trial.**

Craig J. Bryan  Feea R. Leifker  David C. Rozek  AnnaBelle O. Bryan  Mira L. Reynolds  D. Nicolas Oakey  Erika Roberge

Journal of Clinical Psychology
First published: 19 June 2018
https://doi.org/10.1002/jclp.22651

Objective
This study aimed to examine the effectiveness of cognitive processing therapy (CPT) for posttraumatic stress disorder (PTSD) when administered on a daily basis during a 2-week period of time.

Method
In an open-label, prospective cohort pilot trial, 20 U.S. military personnel and veterans diagnosed with PTSD or subthreshold PTSD participated in 12 daily sessions of CPT. Primary outcomes included Clinician Administered PTSD Scale for DSM-5 and PTSD Checklist for DSM-5 scores. Secondary outcomes included Patient Health Questionnaire-8 and Beck Scale for Suicide Ideation (BSSI) scores. Interviews and self-report scales were completed at pretreatment, posttreatment, and 6 months after the treatment.

Results
Relative to baseline, PTSD symptom severity and rates of PTSD diagnosis were significantly reduced at posttreatment and 6-month follow-up. Depression symptom severity did not significantly improve, but suicide ideation significantly decreased at 6-month follow-up.

Conclusions
Daily administration of CPT is associated with significant reductions in PTSD and suicide ideation.

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https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-018-5700-6

**History of co-occurring disorders and current mental health status among homeless veterans.**

Kele Ding, Matthew Slate and Jingzhen Yang

BMC Public Health
2018 18:751
https://doi.org/10.1186/s12889-018-5700-6

Background
Homeless veterans are at high risk for co-occurring disorders (COD), defined as mental illnesses that include at least one alcohol or other drug use disorder and at least one non-drug related mental disorder. However, epidemiological studies examining the prevalence of COD and associated mental health status in this population are limited. The objectives of the study were: (1) to describe a history of diagnosed mental disorders among homeless veterans admitted to a transitional housing program, and (2)

to examine the associations of the prior diagnosed COD and other mental disorders with current mental health status.

Methods
Study participants were male homeless veterans admitted to a transitional housing program from July 2015 to September 2017 in a large municipal area in Northeast Ohio, the United States. Cross-sectional, self-reported data from the admission assessment were included and analyzed. History of mental disorder diagnoses were aggregated into five categories for the purpose of this study: no mental disorders, only alcohol or other drug use disorder(s), one non-drug related mental disorder, two or more non-drug related mental disorders, and COD. Current mental status were measured as empowerment, mental component summary score (MCS) and physical component summary score (PCS) of health related quality of life (VR-12), and perceived overall well-being. Sample distribution of the five categories and their associations with current mental status were examined using Generalized Linear Model test.

Results
Of all participants, 76.7% had at least one prior diagnosed mental disorder, including 47.4% with any drug-related disorders. Over one-third (37.2%) reported having COD. Compared to those with no mental disorder history, those with COD scored significantly lower on MCS and empowerment scores; those with any prior diagnosed non-drug related mental disorders also scored significantly lower on MCS. No significant differences, however, were found in current mental health status between those with COD and those with mental disorders but not COD.

Conclusions
COD prevalence among homeless veterans was within the parameter of other literature reports. Veterans with COD compared to veterans with no history of mental disorders tended to have lower MCS and empowerment scores. Veterans with COD had the same mental health status as those with other mental disorders.

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https://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2018.17060611

**Individual Treatment of Posttraumatic Stress Disorder Using Mantram Repetition: A Randomized Clinical Trial.**

Jill E. Bormann, Steven R. Thorp, Eric Smith, Mark Glickman, Danielle Beck, Dorothy Plumb, Shibei Zhao, Princess E. Ackland, Carie S. Rodgers, Pia Heppner, Lawrence R. Herz, and A. Rani Elwy

American Journal of Psychiatry
Published Online: 20 Jun 2018
https://doi.org/10.1176/appi.ajp.2018.17060611

Objective:
Previous studies suggest that group “mantram” (sacred word) repetition therapy, a non-trauma-focused complementary therapy for posttraumatic stress disorder (PTSD), may be an effective treatment for veterans. The authors compared individually delivered mantram repetition therapy and another non-trauma-focused treatment for PTSD.

Method:
The study was a two-site, open-allocation, blinded-assessment randomized trial involving 173 veterans diagnosed with military-related PTSD from two Veterans Affairs outpatient clinics (January 2012 to March 2014). The mantram group (N=89) learned skills for silent mantram repetition, slowing thoughts, and one-pointed attention. The comparison group (N=84) received present-centered therapy, focusing on currently stressful events and problem-solving skills. Both treatments were delivered individually in eight weekly 1-hour sessions. The primary outcome measure was change in PTSD symptom severity, as measured by the Clinician-Administered PTSD Scale (CAPS) and by self-report. Secondary outcome measures included insomnia, depression, anger, spiritual well-being, mindfulness, and quality of life. Intent-to-treat analysis was conducted using linear mixed models.

Results:
The mantram group had significantly greater improvements in CAPS score than the present-centered therapy group, both at the posttreatment assessment (between-group difference across time, −9.98, 95% CI=−3.63, −16.00; d=0.49) and at the 2-month follow-up (between-group difference, −9.34, 95% CI=−1.50, −17.18; d=0.46). Self-reported PTSD symptom severity was also lower in the mantram group compared with the present-centered therapy group at the posttreatment assessment, but there was no difference at the 2-month follow-up. Significantly more participants in the mantram group (59%) than in the present-centered therapy group (40%) who completed the 2-month follow-up no longer met criteria for PTSD ($p<0.04$). However, the percentage of participants in the mantram group (75%) compared with participants in the present-centered therapy group (61%) who experienced clinically meaningful changes (≥10-point improvements) in CAPS score did not differ significantly between groups.

Reductions in insomnia were significantly greater for participants in the mantram group at both posttreatment assessment and 2-month follow-up.

Conclusions:
In a sample of veterans with PTSD, individually delivered mantram repetition therapy was generally more effective than present-centered therapy for reducing PTSD symptom severity and insomnia.

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http://psycnet.apa.org/record/2018-28691-004

**Survey of psychologists' telebehavioral health practices: Technology use, ethical issues, and training needs.**

Glueckauf, R. L., Maheu, M. M., Drude, K. P., Wells, B. A., Wang, Y., Gustafson, D. J., & Nelson, E.-L.

Professional Psychology: Research and Practice
2018; 49(3), 205-219.
http://dx.doi.org/10.1037/pro0000188

As telecommunication technologies have become more widely available and affordable, opportunities for psychologists to engage in telebehavioral health (TBH) have expanded greatly. A national sample of 164 professional psychologists completed a 28-item survey focusing on (a) current and anticipated use of telecommunication technologies in delivering TBH services, (b) types of telecommunication modalities currently used in clinical practice, (c) ethical and legal/regulatory concerns related to delivery of TBH services, and (d) educational and training needs for TBH practice. Associations between demographic factors (i.e., age, gender, practice setting, practice region, and years since completion of highest academic degree) and responses on survey items were examined. In descending order, the technologies most commonly used by psychologists were: landline telephone, mobile telephone, e-mail, and videoconferencing. A lower proportion of psychologists working in public settings used landline telephones, mobile telephones, or e-mail to deliver TBH than that of psychologists engaged in independent practice. In regard to respondents' age, the proportion of psychologists delivering TBH collapsed across technologies was substantially higher among respondents 37 years of age or older compared with that of 36-year-olds or younger. Respondents also noted several ethical/legal barriers in providing TBH services, particularly managing emergencies, licensure requirements,

and uncertainties about security, as well as confidentiality, Health Insurance Portability and Account Act (HIPAA) compliance, and malpractice insurance coverage. Overall, a substantial discrepancy was noted between psychologists' positive appraisals of TBH and actual implementation, underscoring the ongoing barriers in the adoption of telehealth technologies in practice. Future directions addressed the need for training and education in TBH best practices. 

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http://psycnet.apa.org/record/2018-28691-003

**First responder mental healthcare: Evidence-based prevention, postvention, and treatment.**

Lanza, A., Roysircar, G., & Rodgers, S.

Professional Psychology: Research and Practice
2018; 49(3), 193-204
http://dx.doi.org/10.1037/pro0000192

Recent national tragedies of hurricanes, mass shootings, gun violence in schools, wild fires, and mudslides have drawn our attention to the trauma of affected individuals and schoolchildren, but less to the stressors of first responders. While commonly regaled as "heroes," responders face a scarcity of systemic and tailored mental health support. First responders are susceptible to witnessing a wide array of traumatic events, often in their own communities, that contribute to their stress (Benedek, Fullerton, & Ursano, 2007; Castellano & Plionis, 2006; Kleim & Westphal, 2011). This article critiques systemic resources for first responders' mental healthcare; addresses their personal-social characteristics as well as workplace cultural stigma about help-seeking attitudes; and includes a needs assessment of first responders' resilience that was conducted by one of the authors (Roysircar, 2008a). Using this evidence-based practice knowledge about first responders, the authors present three hypothetical vignettes that highlight the different challenges that commonly effect first responders and recommend interventions. The authors advocate for access to specialized resources that enhance first responders' preparedness for a potentially traumatic event (i.e., prevention education); increase their coping skills and social connections after an event (i.e., postvention service); and provide ongoing mental healthcare (i.e., treatment) that is culturally tailored to first responders' unique needs arising from their work context and identity. (PsycINFO Database Record (c) 2018 APA, all rights reserved)

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https://www.sciencedirect.com/science/article/pii/S2352721818300810

**Sleep disturbances after deployment: National Guard soldiers' experiences and strategies.**

Martha L. Lincoln, Roland S. Moore, Genevieve M. Ames

Sleep Health
Available online 22 June 2018
https://doi.org/10.1016/j.sleh.2018.05.005

Sleep deprivation and sleep disturbance are pervasive among military personnel during and after combat deployment. However, occupational and other constraints often influence military workers to decline behavioral health services and prescription pharmaceutical sleep aids. This article, drawing on ethnographic interviews with National Guard veterans of combat deployment, demonstrates that soldiers with sleep disturbance frequently manage symptoms without medical supervision and by using ad hoc methods including alcohol use. Findings suggest the potential significance of further research into the sleep management practices of military populations, who face both high risk for sleep disturbance and occupational and cultural constraints in effectively managing these serious health concerns.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22291

**Adults with Comorbid Posttraumatic Stress Disorder, Alcohol Use Disorder, and Opioid Use Disorder: The Effectiveness of Modified Prolonged Exposure.**

Kelly R. Peck, Julie A. Schumacher, Paul R. Stasiewicz, Scott F. Coffey

Journal of Traumatic Stress
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https://doi.org/10.1002/jts.22291

Opioid use disorders (OUDs) are a growing problem in the United States. When OUDs co-occur with problematic drinking and posttraumatic stress disorder (PTSD), negative

drug-related mental and physical health outcomes may be exacerbated. Thus, it is important to establish whether PTSD treatments with established efficacy for dually diagnosed individuals also demonstrate efficacy in individuals who engage in problematic drinking and concurrent opioid misuse. Adults who met DSM-IV-TR criteria for PTSD and alcohol dependence were recruited from a substance use treatment facility and were randomly assigned to receive either modified prolonged exposure (mPE) therapy for PTSD or a non-trauma-focused comparison treatment. Compared to adults in a non-OUD comparison group (n = 74), adults with OUD (n = 52) were younger, reported more cravings for alcohol, were more likely to use amphetamines and sedatives, were hospitalized more frequently for drug- and alcohol-related problems, and suffered from more severe PTSD symptomatology, depressive symptoms, and anxiety, standardized mean differences = 0.36–1.81. For participants with OUD, mPE was associated with large reductions in PTSD symptomatology, sleep disturbances, and symptoms of anxiety and depression, ds = 1.08–2.56. Moreover, participants with OUD reported decreases in alcohol cravings that were significantly greater than those reported by the non-OUD comparison group, $F(1, 71.42) = 6.37$, $p = .014$. Overall, our findings support the efficacy of mPE for PTSD among individuals who engage in problematic drinking and concurrent opioid misuse, despite severe baseline symptoms.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22299

**Treatment Outcomes for Military Veterans With Posttraumatic Stress Disorder: Response Trajectories by Symptom Cluster.**

Andrea J. Phelps, Zachary Steele, Sean Cowlishaw, Olivia Metcalf, Nathan Alkemade, Peter Elliott, Meaghan O'Donnell, Suzy Redston, Katelyn Kerr, Alexandra Howard, Jane Nursey, John Cooper, Renee Armstrong, Lea Fitzgerald, David Forbes

Journal of Traumatic Stress
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Although effective posttraumatic stress disorder (PTSD) treatments are available, outcomes for veterans with PTSD are relatively modest. Previous researchers have identified subgroups of veterans with different response trajectories but have not investigated whether PTSD symptom clusters (based on a four-factor model) have different patterns of response to treatment. The importance of this lies in the potential to increase treatment focus on less responsive symptoms. We investigated treatment

outcomes by symptom cluster for 2,685 Australian veterans with PTSD. We used Posttraumatic Stress Disorder Checklist scores obtained at treatment intake, posttreatment, and 3- and 9-month follow-ups to define change across symptom clusters. Repeated measures effect sizes indicated that arousal and numbing symptoms exhibited the largest changes between intake and posttreatment, dRM = −0.61 and dRM = −0.52, respectively, whereas avoidance and intrusion symptoms showed more modest reductions, dRM = −0.36 and dRM = −0.30, respectively. However, unlike the other symptom clusters, the intrusions cluster continued to show significant changes between posttreatment and 3-month follow-up, dRM = −0.21. Intrusion and arousal symptoms also showed continued changes between 3- and 9-month follow-ups although these effects were very small, dRM = −0.09. Growth curve model analyses produced consistent findings and indicated modest initial changes in intrusion symptoms that continued posttreatment. These findings may reflect the longer time required for emotional processing, relative to behavioral changes in avoidance, numbing, and arousal, during the program; they also reinforce the importance of prioritizing individual trauma-focused therapy directly targeting intrusions as the core component of programmatic treatment.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22285

**Description and Preliminary Outcomes of an In Vivo Exposure Group Treatment for Posttraumatic Stress Disorder.**

Eliora Porter, Erin G. Romero, Melissa D. Barone

Journal of Traumatic Stress
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Prolonged exposure (PE) therapy is traditionally delivered individually to patients. To engage more veterans in care, an in vivo exposure group treatment was developed in an urban VA medical center. This treatment represented a modification of the in vivo exposure portion of PE, with the addition of in-session, therapist-assisted in vivo exposures. Here, we describe this 12-week treatment and present preliminary outcome data. Demographics and pre- and posttreatment scores on the PTSD Checklist–Specific (PCL-S) and Beck Depression Inventory–II (BDI-II) were extracted from a program evaluation database. The sample included veterans with a diagnosis of posttraumatic stress disorder (PTSD) who participated in the in vivo exposure group between October

2010 and March 2014 and had available treatment outcome data (N = 43). The majority of participants in the sample were male (n = 41, 95.3%) and Black (n = 34, 79.1%). Participation in the in vivo group was associated with a significant decrease in PCL-S scores, with a medium-large effect size, $t(42) = 5.35$, $p < .001$, $d = 0.73$, and a significant decrease in BDI-II scores, with a small effect size, $t(38) = 2.55$, $p = .015$, $d = 0.23$. Previous participation in an evidenced-based treatment (EBT) was not associated with symptom change following the in vivo group. Findings suggest that in vivo exposure group therapy constitutes a promising intervention for individuals who decline EBTs or remain symptomatic after completing an EBT for PTSD. Further study of this treatment using a randomized controlled trial design is warranted.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22294

**Pretrauma Power and Control Beliefs and Posttraumatic Stress: A Longitudinal Study of Combat Soldiers.**

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Journal of Traumatic Stress
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Belief in one's ability to exert power and control over outcomes following trauma has long been understood as protective against the development of posttraumatic stress disorder (PTSD). The role of pretrauma beliefs about power and control, however, remains unclear. Though a strong pretrauma belief in power and control may similarly be protective, we predicted such a belief may actually be a diathesis for PTSD. When exposed to trauma, individuals with a strong pretrauma belief in power and control may believe they should have prevented the trauma and/or their acute reactions. Such expectations may lead to negative self-beliefs and a higher level of PTSD symptoms. Longitudinal structural equation modeling in a sample of combat soldiers (N = 305) supported our hypothesized model. Stronger predeployment power and control beliefs predicted more negative postdeployment self-beliefs, $\beta = .15$, $p = .035$, 95% CI [.11, .18], and in turn, a higher level of PTSD symptoms, $\beta = .08$, 95% CI [.01, .15]. Prior combat exposure moderated these effects in that soldiers with no prior combat experience evidenced the hypothesized associations, whereas those with moderate or high prior combat exposure did not. Resilience interventions for soldiers who are first

entering combat may thus benefit from promoting acceptance of uncontrollable events in addition to agentic change skills.

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http://psycnet.apa.org/record/2018-28691-006

**Predicting firearms performance based on psychiatric symptoms and medication usage.**

Delaney, E., McLay, R. N., Nikkhoy, M., Kurera, H., Tuttle, R., Webb-Murphy, J., . . . Johnston, S.

Professional Psychology: Research and Practice
2018; 49(3), 227-233.
http://dx.doi.org/10.1037/pro0000189

Health care providers may be asked to make recommendations whether individuals with a mental health history and/or are taking psychiatric medication should have access to firearms as part of their work. For example, in the military, some instructions require a waiver from a medical provider for those individuals taking a psychiatric medication to be able to continue carrying a weapon. There is currently little data or established protocols to help objectively guide such recommendations. This study examined the reliability and validity of using a video game simulation of firearms performance and examined variables that might predict such performance. Participants were asked questions about demographics, psychiatric symptoms, and usage of psychiatric medication. They then took a computerized neuropsychological battery and were observed in a video game simulation of firearms performance. Data were examined for relationships among measures of test−retest stability over 1 month, and models were constructed to predict performance. Results showed that most aspects of firearms performance were found to be a reasonably stable construct with good relationships to established neuropsychological measures. When predicting who would perform more poorly on the firearms simulations, performance on the neuropsychological battery was a significant predictor. Being on psychiatric medication had a small but significant effect on one aspect of firearms performance. This study provides a first step in providing a more objective means of guiding medical recommendations about firearms. (PsycINFO Database Record (c) 2018 APA, all rights reserved)

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https://www.archives-pmr.org/article/S0003-9993(18)30368-X/fulltext

# Understanding health-related quality of life in caregivers of civilians and service members/veterans with traumatic brain injury: Establishing the reliability and validity of PROMIS Fatigue and Sleep Disturbance item banks.

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Archives of Physical Medicine and Rehabilitation
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Objective
To examine the reliability and validity of Patient Reported Outcomes Measurement Information System (PROMIS) measures of sleep disturbance and fatigue in TBI caregivers and to determine the severity of fatigue and sleep disturbance in these caregivers.

Design
Cross-sectional survey data collected through an online data capture platform.

Setting
Four rehabilitation hospitals and Walter Reed National Military Medical Center.

Participants
Caregivers (N=560) of civilians (n=344) and service member/veterans (n=216) with TBI.

Intervention
Not Applicable

Main Outcome Measures
PROMIS sleep and fatigue measures administered as both computerized adaptive tests (CATs) and 4-item short forms (SFs).

Results
For both samples, floor and ceiling effects for the PROMIS measures were low (<11%), internal consistency was very good (all alphas ≥0.80), and test-retest reliability was acceptable (all r≥0.70 except for the fatigue CAT in the service member/veteran sample

r=0.63). Convergent validity was supported by moderate correlations between the PROMIS and related measures. Discriminant validity was supported by low correlations between PROMIS measures and measures of dissimilar constructs. PROMIS scores indicated significantly worse sleep and fatigue for those caring for someone with high levels versus low levels of impairment.

Conclusions
Findings support the reliability and validity of the PROMIS CAT and SF measures of sleep disturbance and fatigue in caregivers of civilians and service members/veterans with TBI.

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https://www.ncbi.nlm.nih.gov/pubmed/28430849

Arch Clin Neuropsychol. 2018 Feb 1;33(1):120-124. doi: 10.1093/arclin/acx031

**Performance and Symptom Validity Testing as a Function of Medical Board Evaluation in U.S. Military Service Members with a History of Mild Traumatic Brain Injury.**

Armistead-Jehle P, Cole WR, Stegman RL

OBJECTIVE:
The study was designed to replicate and extend pervious findings demonstrating the high rates of invalid neuropsychological testing in military service members (SMs) with a history of mild traumatic brain injury (mTBI) assessed in the context of a medical evaluation board (MEB).

METHOD:
Two hundred thirty-one active duty SMs (61 of which were undergoing an MEB) underwent neuropsychological assessment. Performance validity (Word Memory Test) and symptom validity (MMPI-2-RF) test data were compared across those evaluated within disability (MEB) and clinical contexts.

RESULTS:
As with previous studies, there were significantly more individuals in an MEB context that failed performance (MEB = 57%, non-MEB = 31%) and symptom validity testing (MEB = 57%, non-MEB = 22%) and performance validity testing had a notable affect on cognitive test scores. Performance and symptom validity test failure rates did not vary

as a function of the reason for disability evaluation when divided into behavioral versus physical health conditions.

CONCLUSIONS:
These data are consistent with past studies, and extends those studies by including symptom validity testing and investigating the effect of reason for MEB. This and previous studies demonstrate that more than 50% of SMs seen in the context of an MEB will fail performance validity tests and over-report on symptom validity measures. These results emphasize the importance of using both performance and symptom validity testing when evaluating SMs with a history of mTBI, especially if they are being seen for disability evaluations, in order to ensure the accuracy of cognitive and psychological test data.



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**Links of Interest**

Neural circuitry changes associated with increasing self-efficacy in Posttraumatic Stress Disorder.
https://www.psychu.org/occupation_category/psychologist/

Q&A: Post-Traumatic Stress Disorder and the path to recovery
http://www.digitaljournal.com/life/health/q-a-post-traumatic-stress-disorder-and-the-path-to-recovery/article/525704

Instead of a Ban, Transgender Military Recruits Hit Endless Red Tape
Image
https://www.nytimes.com/2018/07/05/us/military-transgender-recruits.html

Life without liquor
https://health.mil/News/Articles/2018/06/29/Life-without-Liquor

Here are 3 new efforts to tackle issues of military spouse employment
https://www.militarytimes.com/pay-benefits/mil-money/2018/06/29/here-are-3-new-efforts-to-tackle-issues-of-military-spouse-employment/

Special Operations DEPTEMPO and the National Security Risk
https://www.thecipherbrief.com/column/opinion/special-operations-deptempo-national-security-risk

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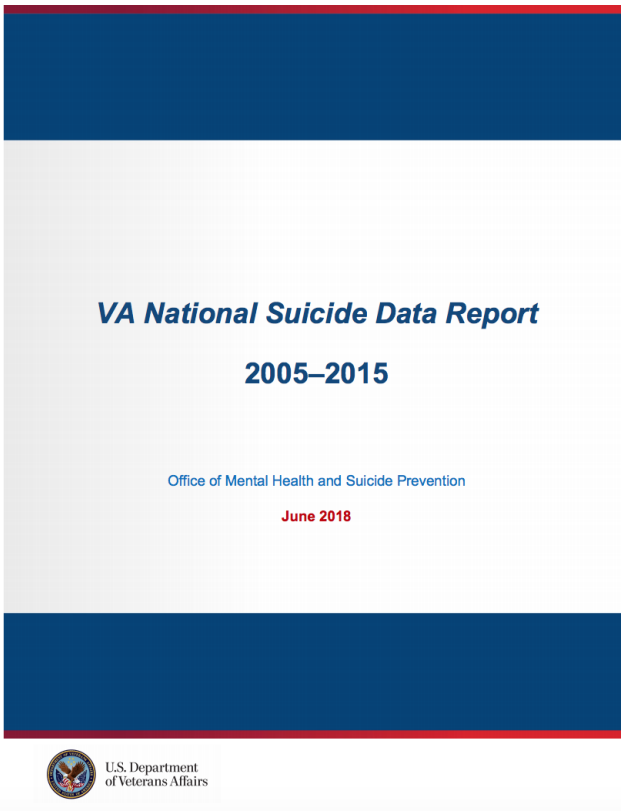
**Resource of the Week: VA National Suicide Data Report 2005–2015**

From press release:

> Today the U.S. Department of Veterans Affairs (VA) released findings from its most recent analysis of Veteran suicide data for all 50 states and the District of Columbia.
>
> This report yields several important insights:
>
> - Suicide rates increased for both Veterans and non-Veterans, underscoring the fact that suicide is a national public health concern that affects people everywhere.
>
> - The average number of Veterans who died by suicide each day remained unchanged at 20.
> - The suicide rate increased faster among Veterans who had not recently used Veterans Health Administration health care than among those who had.

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