

# Research Update -- April 26, 2018

#### What's Here:



# **Special Section: Sleep**

- Nightmares in United States Military Personnel with Sleep Disturbances.
- Genome-wide analysis of insomnia disorder.
- Sleep deprivation compromises resting- state emotional regulatory processes: An EEG study.
- Automatic affective responses towards the bed in patients with primary insomnia: evidence for a negativity bias.
- Poor sleep quality affects empathic responses in experienced paramedics.
- Religion, Combat Casualty Exposure, and Sleep Disturbance in the US Military.
- Orthosomnia: Are Some Patients Taking the Quantified Self Too Far?
- Rumination in Relation to Suicide Risk, Ideation, and Attempts:
   Exacerbation by Poor Sleep Quality?

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- Means restriction for the prevention of suicide: generic protocol (Protocol).
- Posttraumatic Stress Disorder and Complex Posttraumatic Stress Disorder in DSM- 5 and ICD- 11: Clinical and Behavioral Correlates.
- Military Sexual Assault in Transgender Veterans: Results From a Nationwide Survey.
- Stress- Generative Effects of Posttraumatic Stress Disorder: Transactional Associations Between Posttraumatic Stress Disorder and Stressful Life Events in a Longitudinal Sample.
- Clinically Significant Change in Posttraumatic Stress Disorder Symptoms Is Associated with Lower Levels of Aggression After Residential Treatment Discharge.
- Narratives in the Immediate Aftermath of Traumatic Injury: Markers of Ongoing Depressive and Posttraumatic Stress Disorder Symptoms.
- Distinct Trauma Types in Military Service Members Seeking Treatment for Posttraumatic Stress Disorder.
- Measuring Aggregated and Specific Combat Exposures: Associations Between Combat Exposure Measures and Posttraumatic Stress Disorder, Depression, and Alcohol- Related Problems.
- The Influence of Posttraumatic Stress Disorder on Health Functioning in Active-Duty Military Service Members.
- Military status and alcohol problems: Former soldiers may be at greater risk.
- Protective Effects of Psychological Strengths Against Psychiatric Disorders Among Soldiers.
- Suicide Prevention Training: Policies for Health Care Professionals Across the United States as of October 2017.
- Patient outcomes associated with primary care behavioral health services: A systematic review.
- Links of Interest
- Resource of the Week: 5 New Psych Health Evidence Briefs are Now Live!

# https://www.ncbi.nlm.nih.gov/pubmed/29510796

J Clin Sleep Med. 2018 Feb 27. pii: jc-17-00544. [Epub ahead of print]

# Nightmares in United States Military Personnel with Sleep Disturbances.

Creamer JL, Brock MS, Matsangas P, Motamedi V, Mysliwiec V.

#### STUDY OBJECTIVES:

Sleep disturbances are common in United States military personnel. Despite their exposure to combat and trauma, little is known about nightmares in this population. The purpose of this study was to describe the prevalence and associated clinical and polysomnographic characteristics of nightmares in United States military personnel with sleep disturbances.

#### METHODS:

Retrospective review of 500 active duty United States military personnel who underwent a sleep medicine evaluation and polysomnography at our sleep center. The Pittsburgh Sleep Quality Index and the Pittsburgh Sleep Quality Index-Addendum were used to characterize clinically significant nightmares. Subjective and objective sleep attributes were compared between groups.

#### **RESULTS:**

At least weekly nightmares were present in 31.2%; yet, only 3.9% reported nightmares as a reason for evaluation. Trauma-related nightmares occurred in 60% of those patients with nightmares. Patients with nightmares had increased sleep onset latency (SOL) and rapid eye movement (REM) sleep latency (mean SOL/REM sleep latency 16.6/145 minutes, P = .02 and P = .01 respectively) compared to those without (mean SOL/REM sleep latency 12.5/126 minutes). The comorbid disorders of depression ( $P \le .01$ , relative risk [RR] 3.55 [95% CI, 2.52-4.98]), anxiety ( $P \le .01$ , RR 2.57 [95% CI, 1.93-3.44]), posttraumatic stress disorder ( $P \le .01$ , RR 5.11 [95% CI, 3.43-7.62]), and insomnia ( $P \le .01$ , RR 1.59 [95% CI, 1.42-1.79]) were all associated with nightmares.

#### **CONCLUSIONS:**

Clinically significant nightmares are highly prevalent in United States military personnel with sleep disturbances. Nightmares are associated with both subjective and objective sleep disturbances and are frequently comorbid with other sleep and mental health disorders.

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## https://www.nature.com/articles/s41380-018-0033-5

# Genome-wide analysis of insomnia disorder.

Murray B. Stein, Michael J. McCarthy, Chia-Yen Chen, Sonia Jain, Joel Gelernter, Feng He, Steven G. Heeringa, Ronald C. Kessler, Matthew K. Nock, Stephan Ripke, Xiaoying Sun, Gary H. Wynn, Jordan W. Smoller & Robert J. Ursano

Molecular Psychiatry (2018) doi:10.1038/s41380-018-0033-5

Insomnia is a worldwide problem with substantial deleterious health effects. Twin studies have shown a heritable basis for various sleep-related traits, including insomnia, but robust genetic risk variants have just recently begun to be identified. We conducted genome-wide association studies (GWAS) of soldiers in the Army Study To Assess Risk and Resilience in Servicemembers (STARRS). GWAS were carried out separately for each ancestral group (EUR, AFR, LAT) using logistic regression for each of the STARRS component studies (including 3,237 cases and 14,414 controls), and then meta-analysis was conducted across studies and ancestral groups. Heritability (SNPbased) for lifetime insomnia disorder was significant (h2g = 0.115, p = 1.78  $\times$  10-4 in EUR). A meta-analysis including three ancestral groups and three study cohorts revealed a genome-wide significant locus on Chr 7 (q11.22) (top SNP rs186736700, OR = 0.607, p =  $4.88 \times 10^{-9}$ ) and a genome-wide significant gene-based association (p = 7.61 × 10-7) in EUR for RFX3 on Chr 9. Polygenic risk for sleeplessness/insomnia severity in UK Biobank was significantly positively associated with likelihood of insomnia disorder in STARRS. Genetic contributions to insomnia disorder in STARRS were significantly positively correlated with major depressive disorder (rg = 0.44, se = 0.22, p = 0.047) and type 2 diabetes (rg = 0.43, se = 0.20, p = 0.037), and negatively with morningness chronotype (rg = -0.34, se = 0.17, p = 0.039) and subjective well being (rg = -0.59, se = 0.23, p = 0.009) in external datasets. Insomnia associated loci may contribute to the genetic risk underlying a range of health conditions including psychiatric disorders and metabolic disease.

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## https://onlinelibrary.wiley.com/doi/abs/10.1111/jsr.12671

Sleep deprivation compromises resting- state emotional regulatory processes: An EEG study.

Jinxiao Zhang, Esther Yuet Ying Lau, Janet H. Hsiao

Journal of Sleep Research First published: 1 March 2018 https://doi.org/10.1111/jsr.12671

Resting- state spontaneous neural activities consume far more biological energy than stimulus- induced activities, suggesting their significance. However, existing studies of sleep loss and emotional functioning have focused on how sleep deprivation modulates stimulus- induced emotional neural activities. The current study aimed to investigate the impacts of sleep deprivation on the brain network of emotional functioning using electroencephalogram during a resting state. Two established resting- state electroencephalogram indexes (i.e. frontal alpha asymmetry and frontal theta/beta ratio) were used to reflect the functioning of the emotion regulatory neural network. Participants completed an 8- min resting- state electroencephalogram recording after a well- rested night or 24 hr sleep deprivation. The Sleep Deprivation group had a heightened ratio of the power density in theta band to beta band (theta/beta ratio) in the frontal area than the Sleep Control group, suggesting an effective approach with reduced frontal cortical regulation of subcortical drive after sleep deprivation. There was also marginally more left- lateralized frontal alpha power (left frontal alpha asymmetry) in the Sleep Deprivation group compared with the Sleep Control group. Besides, higher theta/beta ratio and more left alpha lateralization were correlated with higher sleepiness and lower vigilance. The results converged in suggesting compromised emotional regulatory processes during resting state after sleep deprivation. Our work provided the first resting- state neural evidence for compromised emotional functioning after sleep loss, highlighting the significance of examining resting- state neural activities within the affective brain network as a default functional mode in investigating the sleep-emotion relationship.

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https://onlinelibrary.wiley.com/doi/abs/10.1111/jsr.12591

Automatic affective responses towards the bed in patients with primary insomnia: evidence for a negativity bias.

Nicolas Koranyi, Marie Meinhard, Peter Bublak, Otto W. Witte, Sven Rupprecht

Journal of Sleep Research First published: 22 August 2017 https://doi.org/10.1111/jsr.12591

Ruminating about sleep problems and negatively valenced thinking play a key role in the maintenance of sleep complaints in patients with insomnia. Based on associative learning principles, we hypothesized that repeated co- occurrence of negative thoughts (unconditioned stimulus) and the bedroom environment (conditioned stimulus) results in automatic negative affective responses towards the bed (conditioned response). Twenty- two insomniacs and 22 good sleepers performed a Single- Target Implicit Association Test measuring the strength of automatically triggered affective responses towards the bed. Results revealed a significant group difference, indicating a stronger negative affective response towards the bed in patients with insomnia. No correlations were found between the strength of negative affective responses towards the bed and subjective measures of sleep quality. As it might increase the stress experience further during bedtime, automatic negative responses towards the bed are likely to represent an additional factor accounting for the development and maintenance of sleep disorders and represent a potential target for therapeutic interventions.

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https://link.springer.com/article/10.1007/s41105-018-0156-8

Poor sleep quality affects empathic responses in experienced paramedics.

Veronica Guadagni, Elizabeth Cook, Chelsie Hart, Ford Burles, Giuseppe Iaria

Sleep and Biological Rhythms First Online: 15 March 2018

DOI https://doi.org/10.1007/s41105-018-0156-8

The ability to experience emotional empathy is critical for vicariously sharing the emotional state of others. This important empathic skill is significantly affected by sleep deprivation and poor sleep quality. Here, we provide the very first evidence that experienced paramedics have a significantly reduced emotional empathy as compared to non-paramedic individuals and paramedic trainees, and that such effect is caused by their poor quality of sleep. Future research building on our findings could potentially lead

to an improvement of work conditions, shifts schedules, and resiliency training for paramedics, which would ultimately benefit all users of emergency medical services.

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# https://link.springer.com/article/10.1007/s10943-018-0596-0

# Religion, Combat Casualty Exposure, and Sleep Disturbance in the US Military.

James White, Xiaohe Xu, Christopher G. Ellison, Reed T. DeAngelis, Thankam Sunil

Journal of Religion and Health First Online: 21 March 2018

DOI https://doi.org/10.1007/s10943-018-0596-0

Does religious involvement (i.e., attendance and salience) mitigate the association between combat casualty exposure and sleep disturbance among US military veterans? To address this question, we analyze cross-sectional survey data from the public-use version of the 2011 Health Related Behaviors Survey of Active Military Personnel. Results from multivariate regression models indicate: (1) Combat casualty exposure was positively associated with sleep disturbance; (2) religious salience both offset and moderated (i.e., buffered) the above association; and (3) religious attendance offset but did not moderate the above association. We discuss study implications and limitations, as well as some avenues for future research.

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## http://jcsm.aasm.org/viewabstract.aspx?pid=30955

# Orthosomnia: Are Some Patients Taking the Quantified Self Too Far?

Baron KG, Abbott S, Jao N, Manalo N, Mullen R.

Journal of Clinical Sleep Medicine 2017;13(2):351–354 http://dx.doi.org/10.5664/jcsm.6472

The use of wearable sleep tracking devices is rapidly expanding and provides an opportunity to engage individuals in monitoring of their sleep patterns. However, there are a growing number of patients who are seeking treatment for self-diagnosed sleep

disturbances such as insufficient sleep duration and insomnia due to periods of light or restless sleep observed on their sleep tracker data. The patients' inferred correlation between sleep tracker data and daytime fatigue may become a perfectionistic quest for the ideal sleep in order to optimize daytime function. To the patients, sleep tracker data often feels more consistent with their experience of sleep than validated techniques, such as polysomnography or actigraphy. The challenge for clinicians is balancing educating patients on the validity of these devices with patients' enthusiasm for objective data. Incorporating the use of sleep trackers into cognitive behavioral therapy for insomnia will be important as use of these devices is rapidly expanding among our patient population.

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# https://www.jad-journal.com/article/S0165-0327(18)30362-8/fulltext

# Rumination in Relation to Suicide Risk, Ideation, and Attempts: Exacerbation by Poor Sleep Quality?

Alex S. Holdaway, Aaron M. Luebbe, Stephen P. Becker

Journal of Affective Disorders Published online: April 20, 2018

DOI: https://doi.org/10.1016/j.jad.2018.04.087

## Background

Rumination, particularly brooding rumination, is associated with suicide risk, ideation and attempts; however, findings are inconsistent with respect to reflective rumination. Recent research suggests reflective rumination might be associated with increased suicide risk specifically among vulnerable individuals. Poor sleep quality is related to both suicide risk and rumination, yet no research has examined whether reflective rumination and sleep quality interact in relation to suicidal risk. This study, therefore, examined whether sleep quality moderates the link between ruminative subtypes and (a) suicide risk overall, and (b) suicidal ideation and (c) history of suicide attempts, specifically.

#### Methods

Participants were 1,696 college students (ages 18-29 years; 65% female) who completed measures assessing rumination, sleep, and suicidal ideation and behavior. Hierarchical linear and logistic regressions were performed regressing overall suicide risk (linear), suicidal ideation (linear) and history of attempts (logistic) on ruminative

subtypes controlling for demographics. Sleep quality was examined as a moderator of the rumination-suicide risk/ideation/attempts link.

#### Results

Brooding rumination was significantly associated with increased suicide risk, ideation, and attempts but these associations were not moderated by sleep quality. Sleep quality exacerbated the association of reflective rumination with overall suicide risk and suicidal ideation specifically. Reflective rumination was not itself, or in interaction with sleep quality, significantly associated with a history of suicide attempts.

#### Limitations

The study is cross-sectional and utilizes a college student sample.

#### Conclusions

This study adds to the literature that suggests reflective rumination is associated with suicide risk and ideation in certain cases, such as in individuals with lower sleep quality. In addition, the study adds continued support for an association between brooding rumination and suicidal behaviors. More studies that examine the relations between ruminative subtypes and attempts are needed. Interventions that target sleep problems and rumination may be beneficial for suicide prevention and intervention.

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https://www.researchgate.net/profile/Chukwudi Okolie2/publication/324328406 Means restriction for the prevention of suicide Generic protocol/links/5acb316e0f7e9bcd5 1992988/Means-restriction-for-the-prevention-of-suicide-Generic-protocol.pdf

Means restriction for the prevention of suicide: generic protocol (Protocol)

John A, Hawton K, Okolie C, Dennis M, Price SF, Lloyd K

Cochrane Database of Systematic Reviews 2018, Issue 4. Art. No.: CD012995. DOI: 10.1002/14651858.CD012995.

This generic protocol will provide a template for a suite of reviews assessing the effectiveness for suicide prevention of restricting access to common means of suicide. This will allow all reviews to use standard methods and collect data on the same set of outcomes, so that evidence from different reviews can be more easily compared.

Interventions to be considered are those intended to restrict the means to jumping, colliding with a train, poisoning, hanging, using a firearm, using a sharp object, inhaling motor vehicle exhaust, and drowning. When possible, we will include evidence restricting the means to newly emerging methods such as charcoal burning.

This generic protocol will not become a full review but will be retained permanently as a protocol to inform the production of all means restriction reviews. Each review that is developed (and subsequently updated) on the basis of this generic protocol will include its own intervention-specific background along with more comprehensive information related to that particular means of suicide.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22272?campaign=woletoc

Posttraumatic Stress Disorder and Complex Posttraumatic Stress Disorder in DSM- 5 and ICD- 11: Clinical and Behavioral Correlates.

Philip Hyland, Mark Shevlin, Claire Fyvie, Thanos Karatzias

Journal of Traumatic Stress First published: 25 March 2018 https://doi.org/10.1002/jts.22272

The American Psychiatric Association and the World Health Organization provide distinct trauma- based diagnoses in the fifth edition of the Diagnostic and Statistical Manual (DSM- 5), and the forthcoming 11th version of the International Classification of Diseases (ICD- 11), respectively. The DSM- 5 conceptualizes posttraumatic stress disorder (PTSD) as a single, broad diagnosis, whereas the ICD- 11 proposes two "sibling" disorders: PTSD and complex PTSD (CPTSD). The objectives of the current study were to: (a) compare prevalence rates of PTSD/CPTSD based on each diagnostic system; (b) identify clinical and behavioral variables that distinguish ICD- 11 CPTSD and PTSD diagnoses; and (c) examine the diagnostic associations for ICD- 11 CPTSD and DSM- 5 PTSD. Participants in a predominately female clinical sample (N = 106) completed self- report scales to measure ICD- 11 PTSD and CPTSD, DSM- 5 PTSD, and depression, anxiety, borderline personality disorder, dissociation, destructive behaviors, and suicidal ideation and self- harm. Significantly more people were diagnosed with PTSD according to the DSM- 5 criteria (90.4%) compared to those diagnosed with PTSD and CPTSD according to the ICD- 11 guidelines (79.8%). An ICD- 11 CPTSD diagnosis was distinguished from an ICD- 11 PTSD diagnosis by

higher levels of dissociation (d = 1.01), depression (d = 0.63), and borderline personality disorder (d = 0.55). Diagnostic associations with depression, anxiety, and suicidal ideation and self- harm were higher for ICD- 11 CPTSD compared to DSM- 5 PTSD (by 10.7%, 4.0%, and 7.0%, respectively). These results have implications for differential diagnosis and for the development of targeted treatments for CPTSD.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22280?campaign=woletoc

Military Sexual Assault in Transgender Veterans: Results from a Nationwide Survey.

Kerry Beckman, Jillian Shipherd, Tracy Simpson, Keren Lehavot

Journal of Traumatic Stress First published: 30 March 2018 https://doi.org/10.1002/jts.22280

There is limited understanding about the frequency of military sexual assault (MSA) in transgender veterans, characteristics associated with MSA, or subsequent mental and behavioral health problems. To address this gap, we used an online national survey of 221 transgender veterans to identify prevalence of MSA and to assess its association with demographic characteristics, past history of sexual victimization, and stigmarelated factors. We also evaluated the association between MSA and several mental and behavioral health problems. Overall, 17.2% of transgender veterans experienced MSA, but rates differed significantly between transgender women (15.2%) and transgender men (30.0%). Using adjusted regression models, MSA was associated with adult sexual assault prior to military service, odds ratio (OR) = 4.05, 95% CI [1.62, 10.08], and distal minority stress during military service, OR = 2.98, 95% CI [1.28, 6.91]. With respect to health outcomes, MSA was associated with past- month posttraumatic stress disorder (PTSD) symptom severity, B = 10.18, 95% CI [3.45, 16.91]; current depression symptom severity, B = 3.71, 95% CI [1.11, 6.30]; and past- year drug use, OR = 3.17, 95% CI [1.36, 7.40]. Results highlight the vulnerability of transgender veterans to MSA, and the need for military prevention programs that acknowledge transgender individuals' heightened risk. Furthermore, clinicians should consider clinical screening for PTSD, depression, and drug use in transgender veterans who have a history of MSA.

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## https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22269

Stress-Generative Effects of Posttraumatic Stress Disorder: Transactional Associations Between Posttraumatic Stress Disorder and Stressful Life Events in a Longitudinal Sample.

Hannah Maniates, Tawni B. Stoop, Mark W. Miller, Lisa Halberstadt, Erika J. Wolf

Journal of Traumatic Stress First published: 6 April 2018 https://doi.org/10.1002/jts.22269

Longitudinal studies have demonstrated transactional associations between psychopathology and stressful life events (SLEs), such that psychopathology predicts the occurrence of new SLEs, and SLEs in turn predict increasing symptom severity. The association between posttraumatic stress disorder (PTSD), specifically, and stress generation remains unclear. This study used temporally sequenced data from 116 veterans (87.9% male) to examine whether PTSD symptoms predicted new onset SLEs, and if these SLEs were associated with subsequent PTSD severity. The SLEs were objectively rated, using a clinician-administered interview and consensus-rating approach, to assess the severity, frequency, and personal dependence (i.e., if the event was due to factors that were independent of or dependent on the individual) of newonset SLEs. A series of mediation models were tested, and results provided evidence for moderated mediation whereby baseline PTSD severity robustly predicted personally dependent SLEs, B = 0.03, p = .006, and dependent SLEs predicted increases in followup PTSD symptom severity, B = -0.04, p = .003, among participants with relatively lower baseline PTSD severity. After we controlled for baseline PTSD severity, personality traits marked by low constraint (i.e., high impulsivity) were also associated with an increased number of dependent SLEs. Our results provide evidence for a stress-generative role of PTSD and highlight the importance of developing interventions aimed at reducing the occurrence of personally dependent stressors.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22275

Clinically Significant Change in Posttraumatic Stress Disorder Symptoms Is Associated With Lower Levels of Aggression After Residential Treatment Discharge.

Laura E. Watkins, Lauren M. Sippel, Robert H. Pietrzak, Rani Hoff, Ilan Harpaz- Rotem

Journal of Traumatic Stress First published: 30 March 2018 https://doi.org/10.1002/jts.22275

Although the link between posttraumatic stress disorder (PTSD) and aggression has been repeatedly demonstrated, to our knowledge no research has examined whether PTSD symptom reductions are linked to less aggression after treatment. The current study aimed to address this gap in the literature by examining the association between reductions in PTSD symptoms and posttreatment aggression among 2,275 veterans in residential treatment for PTSD across 35 Veterans Health Administration sites. We estimated a multilevel model that examined the effect of clinically significant PTSD symptom change on aggression at 4- month posttreatment follow- up, and found significant within- site and between- site contextual effects of clinically significant changes in PTSD symptoms on follow- up aggression. Findings revealed that veterans who reported clinically significant changes in their PTSD symptoms had lower levels of aggression at follow- up than veterans at the same treatment site who did not report clinically significant PTSD change. After we controlled for individual clinically significant PTSD change, participants in treatment sites where the rates of clinically significant PTSD change were higher overall had lower levels of aggression at follow- up. The model explained over one- fourth of the variability in aggression, R2 = .26. Findings from the current study extend previous research that has shown associations between PTSD and aggression, by revealing that clinically significant change in PTSD during residential treatment is associated with less aggression at follow- up. These findings suggest that interventions that effectively reduce PTSD symptoms may also help reduce risk for aggression.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22271

Narratives in the Immediate Aftermath of Traumatic Injury: Markers of Ongoing Depressive and Posttraumatic Stress Disorder Symptoms.

Jordan A. Booker, Matthew E. Graci, Lauren A. Hudak, Tanja Jovanovic, Barbara O. Rothbaum, Kerry J. Ressler, Robyn Fivush, Jennifer Stevens

Journal of Traumatic Stress First published: 6 April 2018 https://doi.org/10.1002/jts.22271

In this study, we considered connections between the content of immediate trauma narratives and longitudinal trajectories of negative symptoms to address questions about the timing and predictive value of collected trauma narratives. Participants (N = 68) were individuals who were admitted to the emergency department of a metropolitan hospital and provided narrative recollections of the traumatic event that brought them into the hospital that day. They were then assessed at intervals over the next 12 months for depressive and posttraumatic symptom severity. Linguistic analysis identified words involving affect (positive and negative emotions), sensory input (sight, sound, taste, touch, and smell), cognitive processing (thoughts, insights, and reasons), and temporal focus (past, present, and future) within the narrative content. In participants' same-day narratives of the trauma, past-focused utterances predicted greater decreases in depressive symptom severity over the next year, d = -0.13, whereas cognitive process utterances predicted more severe posttraumatic symptom severity across time points, d = 0.32. Interaction analyses suggested that individuals who used fewer past-focused and more cognitive process utterances within their narratives tended to report more severe depressive and posttraumatic symptom severity across time, ds = 0.31 to 0.34. Overall, these findings suggest that, in addition to other demographics and baseline symptom severity, early narrative content can serve as an informative marker for longitudinal psychological symptoms, even before extensive narrative processing and phenomenological meaning-making have occurred.

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https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22276

Distinct Trauma Types in Military Service Members Seeking Treatment for Posttraumatic Stress Disorder.

Brett T. Litz, Ateka A. Contractor, Charla Rhodes, Katherine A. Dondanville, Alexander H. Jordan, Patricia A. Resick, Edna B. Foa, Stacey Young- McCaughan, Jim Mintz Jeffrey S. Yarvis, Alan L. Peterson for the STRONG STAR Consortium

Journal of Traumatic Stress First published: 18 April 2018 https://doi.org/10.1002/jts.22276 We examined the frequency of trauma types reported in a cohort of service members seeking treatment for posttraumatic stress disorder (PTSD) and compared symptom profiles between types. In this observational study, 999 service members (9.2% women; Mage = 32.91 years; 55.6% White) were evaluated using a standardized assessment procedure to determine eligibility for clinical trials. Participants were evaluated for DSM- IV- TR- defined PTSD using the PTSD Symptom Scale-Interview; all participants reported a Criterion A event. Independent evaluators rated descriptions of Criterion A events as belonging to trauma types at a high degree of reliability,  $\kappa = 0.80$ . Aggregated non- life- threat primary trauma types were more frequently endorsed than aggregated life- threat types, 95% CI [17.10%, 29.20%]. Participants who endorsed moral injury–self traumas had a higher level of reexperiencing (d = 0.39), guilt (hindsight bias, d = 1.06; wrongdoing, d = 0.93), and self-blame (d = 0.58) symptoms, relative to those who reported life threat-self. Participants who experienced traumatic loss had greater reexperiencing (d = 0.39), avoidance (d = 0.22), guilt (responsibility, d = 0.39), and greater periand posttraumatic sadness (d = 0.84 and d = 0.70, respectively) symptoms, relative to those who endorsed life threat-self. Relative to life threat-self, moral injury-others was associated with greater peri- (d = 0.36) and posttraumatic (d = 0.33) betrayal/humiliation symptoms, and endorsement of aftermath of violence was associated with greater peri- (d = 0.84) and posttraumatic sadness (d = 0.57)symptoms. War zone traumas were heterogeneous, and non- life- threat traumas were associated with distinct symptoms and problems.

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# https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22273

Measuring Aggregated and Specific Combat Exposures: Associations Between Combat Exposure Measures and Posttraumatic Stress Disorder, Depression, and Alcohol- Related Problems.

Ben Porter, Charles W. Hoge, Laura E. Tobin, Carrie J. Donoho, Carl A. Castro, David D. Luxton, Dennis Faix

Journal of Traumatic Stress First published: 30 March 2018 https://doi.org/10.1002/jts.22273

Research has shown combat exposure to be associated with negative mental health outcomes. Different combat exposure measures are not composed of the same combat experiences, and few combat exposure measures have been directly compared to

another measure. Furthermore, research about the unique associations between specific combat experiences and mental health is lacking. We investigated associations between new- onset posttraumatic stress disorder (PTSD), new- onset depression, and alcohol- related problems and two commonly used measures of combat among a sample of 20,719 recently deployed U.S. military personnel. A 13- item measure assessed both direct and indirect combat exposures, and a 5- item measure assessed only indirect exposures. Both combat measures were associated with all outcomes in the same direction (e.g., PTSD, odds ratio [OR] = 2.97 vs. 4.01; depression, OR = 2.03 vs. 2.42; alcohol- related problems, OR = 1.41 vs. 1.62, respectively, for the 5- and 13- item measures). The 13- item measure had a stronger association with some outcomes, particularly PTSD. Each specific item had significant bivariate associations with all outcomes, ORs = 1.43–4.92. After adjusting for other combat exposures, items assessing witnessing abuse, feeling in danger, and knowing someone injured or killed remained associated with all outcomes, ORs = 1.18–2.72. After this adjustment, several items had unexpected protective associations with some mental health outcomes. Results indicated these two combat exposure measures were approximately equally effective for determining risk for negative mental health outcomes in a deployed population, despite having different content. Additional research is needed to replicate and understand how specific combat exposures affect health.

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# https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22274

The Influence of Posttraumatic Stress Disorder on Health Functioning in Active-Duty Military Service Members.

Anu Asnaani, Antonia N. Kaczkurkin, Kathy Benhamou, Jeffrey S. Yarvis, Alan L. Peterson, Stacey Young- McCaughan, Elisa V. Borah, Katherine A. Dondanville, Elizabeth A. Hembree, Brett T. Litz, Jim Mintz, Edna B. Foa for the STRONG STAR Consortium

Journal of Traumatic Stress First published: 18 April 2018 https://doi.org/10.1002/jts.22274

Researchers have suggested that posttraumatic stress disorder (PTSD) is associated with significant healthcare burden and utilization of medical services. The purpose of this study was to examine the impact of PTSD symptoms on health functioning among active-duty military personnel. Participants in the study were 366 treatment-seeking

service members who had returned from deployment and were participating in a larger PTSD treatment study. Assessments included measures of PTSD symptom severity, combat experiences, life stress, health functioning, alcohol use, and depression. We hypothesized that at baseline, PTSD severity and its symptom clusters would be significantly associated with poorer physical and mental health functioning. We conducted separate hierarchical multiple regressions to examine the predictive contribution the hypothesized factors would have on the variance in physical and mental health scores. Consistent with previous literature, we found that PTSD severity was significantly associated with poorer mental health functioning, B = -0.25, SE = 0.08,  $\beta$  = -0.15, t(342) = -3.07, R2 = .37, p = .002; however, contrary to our hypotheses, PTSD severity was not associated with poorer physical health functioning. Further, the hyperarousal symptom cluster was significantly associated with poorer physical health functioning, B = -0.83, SE = 0.26,  $\beta = -0.18$ , t(340) = -3.16, R2 = .11, p = .002, but not mental health functioning. Limitations of our study included the use of self-report measures only and lack of objective measures. Future directions for study include examination of how health functioning perceptions change over a longer duration of PTSD symptoms and after treatment.

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https://www.sciencedirect.com/science/article/pii/S0306460318303034

Military status and alcohol problems: Former soldiers may be at greater risk.

Bonnie M. Vest, D.Lynn Homish, Jennifer Fillo, Gregory G. Homish

Addictive Behaviors Volume 84, September 2018, Pages 139–143

https://doi.org/10.1016/j.addbeh.2018.04.011

# Objectives

The goal of this study was to explore differences in alcohol problems as a function of military status (current soldier, previous soldier and civilian spouses), and the possible interaction between sex and military status. We hypothesized that 1) soldiers would be at greater risk for alcohol problems than civilian spouses, and 2) former soldiers would be at greater risk compared to current soldiers.

#### Methods

Data were drawn from Operation: SAFETY, a longitudinal study examining physical and mental health among U.S. Army Reserve and National Guard soldiers and their

partners. The analytic sample included male and female participants who completed both the baseline and first follow-up assessments (N = 772). Negative binomial regression models were used to examine differences between military status group on alcohol problems at follow-up, controlling for sex and alcohol consumption at baseline. Interactions between military status and sex were also examined.

#### Results

Among current soldiers, males experienced significantly more alcohol problems compared to women (4.47, 3.46; p = 0.005). Likewise, among previous soldiers, males experienced significantly more alcohol problems compared to women (6.69, 2.92; p = 0.002). Male previous soldiers had significantly more alcohol problems compared to both male current soldiers and male civilian spouses (6.69, 4.47, p = 0.04; 6.69, 3.96; p = 0.02). Among women, there were no significant differences by military status.

#### Conclusions

Our results indicate that male previous soldiers are at greater risk of alcohol problems than both current soldiers and civilian spouses. Health care and service providers should consider screening and monitoring soldiers who separate from the military, as alcohol use may increase.

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https://www.ncbi.nlm.nih.gov/pubmed/29635592

Mil Med. 2018 Mar 1;183(suppl 1):386-395. doi: 10.1093/milmed/usx189

Protective Effects of Psychological Strengths Against Psychiatric Disorders Among Soldiers.

Shrestha A, Cornum BGR, Vie LL, Scheier LM, Lester MAJPB, Seligman MEP

This study prospectively examined psychological strengths targeted in U.S. Army training programs as predictors of psychiatric diagnosis in active duty soldiers. At baseline, the cohort (140,584 soldiers) was without psychiatric disorder. Soldiers were then followed for 2 yr and classified as healthy, or acquiring a psychiatric diagnosis (adjustment disorder, anxiety disorder, depression, or post-traumatic stress disorder), or being prescribed psychotropic medication without a psychiatric diagnosis. Soldiers who remained healthy reported significantly higher strengths scores at baseline, compared with soldiers who were diagnosed with a psychiatric disorder. In addition, soldiers in the worst strengths decile were twice as likely to develop a psychiatric disorder, compared

with soldiers in the top 50% on baseline strengths. Strengths afforded the greatest protection against depression. Offering tailored resilience training programs could help the Army steel vulnerable soldiers against the challenges of life, military training, and combat.

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# https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2018.304373

Suicide Prevention Training: Policies for Health Care Professionals Across the United States as of October 2017.

Janessa M. Graves PhD, MPH, Jessica L. Mackelprang PhD, Sara E. Van Natta RN, and Carrie Holliday PhD, MN, ARNP

American Journal of Public Health Published Online: April 19, 2018 DOI: 10.2105/AJPH.2018.304373

# Objectives.

To identify and compare state policies for suicide prevention training among health care professionals across the United States and benchmark state plan updates against national recommendations set by the surgeon general and the National Action Alliance for Suicide Prevention in 2012.

#### Methods.

We searched state legislation databases to identify policies, which we described and characterized by date of adoption, target audience, and duration and frequency of the training. We used descriptive statistics to summarize state-by-state variation in suicide education policies.

## Results.

In the United States, as of October 9, 2017, 10 (20%) states had passed legislation mandating health care professionals complete suicide prevention training, and 7 (14%) had policies encouraging training. The content and scope of policies varied substantially. Most states (n = 43) had a state suicide prevention plan that had been revised since 2012, but 7 lacked an updated plan.

# Conclusions.

Considerable variation in suicide prevention training for health care professionals exists

across the United States. There is a need for consistent polices in suicide prevention training across the nation to better equip health care providers to address the needs of patients who may be at risk for suicide. (Am J Public Health. Published online ahead of print April 19, 2018: e1–e9. doi:10.2105/AJPH.2018.304373)

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# https://www.sciencedirect.com/science/article/pii/S016383431830063X

Patient outcomes associated with primary care behavioral health services: A systematic review.

Kyle Possemato, Emily M. Johnson, Gregory P. Beehler, Robyn L. Shepardson, ... Laura O. Wray

General Hospital Psychiatry Available online 18 April 2018 https://doi.org/10.1016/j.genhosppsych.2018.04.002

#### Objective

This systematic review focused on Primary Care Behavioral Health (PCBH) services delivered under normal clinic conditions that included the patient outcomes of: 1) access/utilization of behavioral health services, 2) health status, and 3) satisfaction.

#### Method

Following PRISMA guidelines, comprehensive database searches and rigorous coding procedures rendered 36 articles meeting inclusion criteria. The principle summary measures of odd ratios or Cohen's d effect sizes were reported.

#### Results

Due to significant limitations in the methodological rigor of reviewed studies, robust findings only emerged for healthcare utilization: PCBH is associated with shorter wait-times for treatment, higher likelihood of engaging in care, and attending a greater number of visits. Several small, uncontrolled studies report emerging evidence that functioning, depression, and anxiety improve overtime. There was no evidence of greater improvement in patient health status when PCBH was compared to other active treatments. The limited available evidence supports that patient satisfaction with PCBH services is high.

#### Conclusions

The implementation of PCBH services is ahead of the science supporting the usefulness of these services. Patient outcomes for PCBH are weaker than outcomes for Collaborative Care. More rigorous investigations of patient outcomes associated with PCBH are needed to allow for optimization of services.

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#### **Links of Interest**

Comparing Suicide Rates: Making an Apples to Apples Comparison <a href="https://www.rand.org/blog/2018/04/comparing-suicide-rates-making-an-apples-to-apples.html">https://www.rand.org/blog/2018/04/comparing-suicide-rates-making-an-apples-to-apples.html</a>

Army chaplain faces same-sex discrimination claim; lawyer says he was following Army guidance

https://www.armytimes.com/news/2018/04/19/army-chaplain-faces-same-sex-discrimination-claim-lawyer-says-he-was-following-army-guidance/

'Bad Santa' case could have been handled better, Navy's top officer says <a href="https://www.navytimes.com/news/your-navy/2018/04/19/bad-santa-case-could-have-been-handled-better-navys-top-officer-says/">https://www.navytimes.com/news/your-navy/2018/04/19/bad-santa-case-could-have-been-handled-better-navys-top-officer-says/</a>

No reports of transgender troops affecting unit cohesion, Marine Corps and Navy leaders say

https://www.navytimes.com/news/your-navy/2018/04/19/no-reports-of-transgender-troops-affecting-unit-cohesion-marine-corps-and-navy-leaders-say/

After waiver controversy, Army to evaluate troops' mental health pasts on case-by-case basis

https://www.armytimes.com/news/your-army/2018/04/20/after-waiver-controversy-army-to-evaluate-troops-mental-health-pasts-on-case-by-case-basis/

Editorial: Military kids should not be penalized for seeking behavioral health help <a href="https://www.militarytimes.com/opinion/editorials/2018/04/23/editorial-military-kids-should-not-be-penalized-for-seeking-behavioral-health-help/">https://www.militarytimes.com/opinion/editorials/2018/04/23/editorial-military-kids-should-not-be-penalized-for-seeking-behavioral-health-help/</a>

Predictive analytics pointing VA to veterans at risk of suicide <a href="https://federalnewsradio.com/veterans-affairs/2018/04/predictive-analytics-pointing-vato-veterans-at-risk-of-suicide/">https://federalnewsradio.com/veterans-affairs/2018/04/predictive-analytics-pointing-vato-veterans-at-risk-of-suicide/</a>

Short-Term PTSD Therapy Can Yield Long-Term Benefits <a href="https://psychcentral.com/news/2018/04/21/short-term-ptsd-therapy-can-yield-long-term-benefits/134777.html">https://psychcentral.com/news/2018/04/21/short-term-ptsd-therapy-can-yield-long-term-benefits/134777.html</a>

Neuroscientists use magnetic stimulation to amplify PTSD therapy <a href="https://medicalxpress.com/news/2018-04-neuroscientists-magnetic-amplify-ptsd-therapy.html">https://medicalxpress.com/news/2018-04-neuroscientists-magnetic-amplify-ptsd-therapy.html</a>

Depression and Sleep Disturbances: Common Bedfellows <a href="https://www.psychiatryadvisor.com/depression-advisor/insomnia-major-depressive-disorder-and-sleep-disorders/article/757530/">https://www.psychiatryadvisor.com/depression-advisor/insomnia-major-depressive-disorder-and-sleep-disorders/article/757530/</a>

A Comic Strip About the Marines: The Few, the Proud, the Bored Out of Their Minds <a href="https://www.nytimes.com/2018/04/24/books/marines-terminal-lance-comic-strip-maximilian-uriarte.html">https://www.nytimes.com/2018/04/24/books/marines-terminal-lance-comic-strip-maximilian-uriarte.html</a>

How to recognize the subtle signs of PTSD <a href="https://www.healio.com/family-medicine/psychiatry/news/online/{16bca125-a74a-45b9-81f1-16eaf14e4f29}/how-to-recognize-the-subtle-signs-of-ptsd">https://www.healio.com/family-medicine/psychiatry/news/online/{16bca125-a74a-45b9-81f1-16eaf14e4f29}/how-to-recognize-the-subtle-signs-of-ptsd</a>

Caregiving for veterans who have PTSD, at any age <a href="http://www.sandiegouniontribune.com/caregiver/caregiving-essentials/resources/sd-me-caregiver-ptsd-20180424-story.html">http://www.sandiegouniontribune.com/caregiver/caregiving-essentials/resources/sd-me-caregiver-ptsd-20180424-story.html</a>

Students at DoD-run schools score among nation's best in reading, math assessments <a href="https://www.militarytimes.com/pay-benefits/2018/04/24/students-at-dod-run-schools-score-among-nations-best-in-reading-math-assessments/">https://www.militarytimes.com/pay-benefits/2018/04/24/students-at-dod-run-schools-score-among-nations-best-in-reading-math-assessments/</a>

The 82nd Airborne is changing its policy for memorial services — and it may affect paratroopers who die by suicide

https://www.armytimes.com/news/your-army/2018/04/24/the-82nd-airborne-is-changing-its-policy-for-memorial-services-and-it-may-affect-paratroopers-who-die-by-suicide/

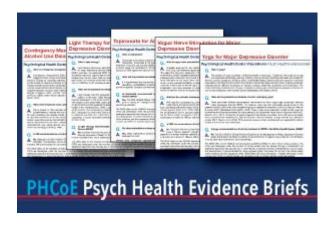
Air Force considering new ways to keep women in service <a href="https://federalnewsradio.com/dod-personnel-notebook/2018/04/air-force-considering-new-ways-to-keep-women-in-service/">https://federalnewsradio.com/dod-personnel-notebook/2018/04/air-force-considering-new-ways-to-keep-women-in-service/</a>

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# Resource of the Week: 5 New Psych Health Evidence Briefs are Now Live!

Psych Health Evidence Briefs give psychological health care providers an easy way to familiarize themselves with the available scientific evidence and clinical guidance for treatments for mental health conditions commonly experienced by service members. The briefs are also useful as handouts when service members and veterans are considering their options for treatment.

The Psychological Health Center of Excellence began producing the evidence briefs just over a year ago, and there are now 28 published on our website, covering the gamut of available treatments, from front-line evidence-based treatments to emerging treatments that have little or no research but are covered by the media.



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