



## CDP Research Update -- April 16, 2015

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<http://www.ptsd.va.gov/professional/newsletters/research-quarterly/V26N1.pdf>

### **PTSD Research Quarterly -- Biomarkers for Treatment and Diagnosis**

RQ Vol. 26(1), 2015, by Ann M. Rasmusson, MD and Chadi G. Abdallah, MD  
National Center for PTSD, U.S. Department of Veterans Affairs

We appear to have reached a watershed in the development of biologically based interventions for the prevention and treatment of PTSD. Over the past 25 years, great strides have been made in the characterization of biological characteristics of PTSD (Pitman et al., 2012), but there remain few biologically oriented treatments for PTSD with proven efficacy, either as stand-alone pharmacotherapies or as augmentation for otherwise generally effective exposure-based cognitive therapies such as Prolonged Exposure (PE) or Cognitive Processing Therapy (CPT).

Pharmacological agents tested in PTSD have typically shown large effect sizes in at least some small scale preliminary studies, but considerably smaller effects when tested against placebo in large multisite trials. Even the two United State (US) Food and Drug Administration (FDA)-approved medications for PTSD (the serotonin-selective reuptake inhibitors, sertraline and paroxetine), showed only moderate effect sizes in four large FDA registrational trials conducted in general PTSD populations (Friedman and Davidson, 2014).

Although there may be many reasons for the limited success in this area of PTSD treatment development, a primary reason may be the failure to address individual variability in the

complex interacting biological processes that converge on the otherwise relatively uniform PTSD phenotype or that define PTSD endophenotypes or particular PTSD-related medical, psychiatric, and substance abuse comorbidity patterns. However, rapidly evolving molecular, neuroimaging, psychophysiology, and data analytic strategies embedded in new multimodal study designs may afford new opportunities to capitalize on this earned insight— in the service of developing individually based precision biotherapies for PTSD and PTSD-related comorbid conditions.

The following brief bibliography has therefore been assembled to guide clinical and basic scientists through the accumulated translational knowledge base of biological factors related to PTSD risk and constituting potential PTSD treatment targets or outcome variables. The list has been limited in accordance with space and is by no means exhaustive; rather, it is intended to highlight the discovery of critical biological factors and emergence of concepts that have advanced PTSD investigations to the current vantage point.

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[http://www.rand.org/pubs/research\\_reports/RR739.html](http://www.rand.org/pubs/research_reports/RR739.html)

### **Sleep in the U.S. Military: Promoting Healthy Sleep Among U.S. Servicemembers**

Wendy M. Troxel, Regina A. Shih, Eric Pedersen, Lily Geyer, Michael P. Fisher, Beth Ann Griffin, Ann C. Haas, Jeremy Kurz, Paul S. Steinberg

RAND Corporation, 2015

Sleep disturbances are a common reaction to stress and are linked to a host of physical and mental health problems. Given the unprecedented demands placed on U.S. military forces since 2001, there has been growing concern about the prevalence and consequences of sleep problems for servicemembers. Sleep problems often follow a chronic course, persisting long after servicemembers return home from combat deployments, with consequences for their reintegration and the readiness and resiliency of the force. Therefore, it is critical to understand the role of sleep problems in servicemembers' health and functioning and the policies and programs available to promote healthy sleep. This report provides the first comprehensive review of sleep-related policies and programs across the U.S. Department of Defense (DoD), along with a set of actionable recommendations for DoD, commanders, researchers, and medical professionals who treat U.S. servicemembers. The two-year multimethod study also examined the rates and correlates of sleep problems among post-deployed servicemembers, finding negative effects on mental health, daytime impairment, and perceived operational readiness. The research reviewed evidence-based interventions to treat sleep disturbances among servicemembers and veterans and exposed several individual- and system-level barriers to achieving healthy sleep. Implementing evidence-based treatments is just one step toward improving sleep across the force; as the research recommendations highlight, it is equally

important that policies and programs also focus on preventing sleep problems and their consequences.

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[http://www.rand.org/pubs/research\\_reports/RR586.html](http://www.rand.org/pubs/research_reports/RR586.html)

### **Suicide Postvention in the Department of Defense: Evidence, Policies and Procedures, and Perspectives of Loss Survivors**

Rajeev Ramchand, Lynsay Ayer, Gail Fisher, Karen Chan Osilla, Dionne Barnes-Proby, Samuel Wertheimer

RAND Corporation, 2015

The U.S. Department of Defense (DoD) has been struggling with increasing rates of suicide among military personnel for the past decade. As DoD continues to implement new programs and examine its policies in an effort to prevent military personnel from taking their own lives, it is important to assess its current responses to suicide and to identify opportunities to enhance these programs and policies. Unfortunately, there is little scientific evidence on how best to respond to suicides, how to ensure that surveillance activities are managed appropriately and that loss survivors are given sufficient support to grieve, how additional suicides can be prevented, and how to honor and respect the decedent and his or her loved ones. At the same time, there are many resource guides intended to provide recommendations for organizations (mostly schools) in responding to suicides. A review of the existing scientific evidence on postvention (responses to prevent additional suicides in the aftermath of a suicide) and guidance for other types of organizations provides potential insights for DoD, however. Complemented by the perspectives of those most intimately touched by military suicide — the family and friends of those who have died — these sources may help DoD formulate its guidance in a practical and sensitive way.

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<http://www.ncbi.nlm.nih.gov/pubmed/25852234>

Behav Neurol. 2015;2015:378726. doi: 10.1155/2015/378726. Epub 2015 Mar 17.

### **Sleep Duration and Sleep Quality following Acute Mild Traumatic Brain Injury: A Propensity Score Analysis.**

Huang TY, Ma HP, Tsai SH, Chiang YH, Hu CJ, Ou J

Introduction.

Mild traumatic brain injury (mTBI) has been widely studied and the effects of injury can be long

term or even lifelong. This research aims to characterize the sleep problems of patients following acute mTBI.

#### Methods.

A total of 171 patients with mTBI within one month and 145 non-mTBI controls were recruited in this study. The questionnaire, Pittsburgh Sleep Quality Index (PSQI), was used to evaluate seven aspects of sleep problems. A propensity score method was used to generate a quasirandomized design to account for the background information, including gender, age, Beck's Anxiety Index, Beck's Depression Index, and Epworth Sleepiness Scale. The effect was evaluated via cumulative logit regression including propensity scores as a covariate.

#### Results.

Before adjustment, about 60% mTBI patients and over three quarters of control subjects had mild sleep disturbance while one third mTBI patients had moderate sleep disturbance. After adjusting by the propensity scores, the scores of sleep quality and duration were significant between mTBI and control groups.

#### Conclusion.

Our study supports that sleep problem is common in mTBI group. After adjusting the confounders by propensity score, sleep duration and subjective sleep quality are the most frequently reported problems in mTBI patients within one month after the injury.

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<http://www.ncbi.nlm.nih.gov/pubmed/25850338>

J Clin Exp Neuropsychol. 2015 Apr 8:1-10. [Epub ahead of print]

### **Neuropsychological performance in treatment-seeking Operation Enduring Freedom/Operation Iraqi Freedom Veterans with a history of mild traumatic brain injury.**

Jak AJ, Gregory A, Orff HJ, Colón C, Steele N, Schiehser DM, Delano-Wood L, Jurick SM, Twamley EW.

#### INTRODUCTION:

Clinical neuropsychological presentation of treatment-seeking Veterans with a remote history of mild traumatic brain injury (mTBI) is widely variable. This manuscript seeks to better characterize cognitive concerns in the post-acute phase following mTBI and to identify the neuropsychological profiles of a large sample of clinically referred Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn (OEF/OIF/OND) Veterans with a history of mTBI and current cognitive complaints. We hypothesized that a minority of cases would exhibit valid and widespread neuropsychological deficits.

## METHOD:

Retrospective chart reviews of neuropsychological testing and mental health symptoms and diagnoses were conducted on 411 clinically referred OEF/OIF/OND Veterans with a history of mTBI. Groups were created based on scores on performance validity measures and based on overall neuropsychological performance.

## RESULTS:

A total of 29.9% of the sample performed below normative expectations on at least one performance validity test (PVT). Of those Veterans performing adequately on PVTs, 60% performed within normal limits on virtually all neuropsychological measures administered, leaving only 40% performing below expectations on two or more measures. Mood and neurobehavioral symptoms were significantly elevated in Veterans performing below cutoff on PVTs compared to Veterans who performed within normative expectations or those with valid deficits. Neurobehavioral symptoms were significantly correlated with mental health symptom reports but not with injury variables.

## CONCLUSIONS:

In summary, in a large sample of clinically referred Veterans with persistent cognitive complaints after mild TBI, a third demonstrated invalid clinical neuropsychological testing, and, of those performing at or above cutoff on PVTs, over half performed within normative expectations across most neuropsychological tests administered. Results highlight the importance of objective assessment of cognitive functioning in this population as subjective reports do not correspond to objective assessment in the majority of cases.

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<http://www.ncbi.nlm.nih.gov/pubmed/25852974>

Innov Clin Neurosci. 2015 Jan-Feb;12(1-2):12-20.

## **Multimodal approach to identifying malingered posttraumatic stress disorder: a review.**

Ali S, Jabeen S, Alam F

The primary aim of this article is to aid clinicians in differentiating true posttraumatic stress disorder from malingered posttraumatic stress disorder. Posttraumatic stress disorder and malingering are defined, and prevalence rates are explored. Similarities and differences in diagnostic criteria between the fourth and fifth editions of the Diagnostic and Statistical Manual of Mental Disorders are described for posttraumatic stress disorder. Possible motivations for malingering posttraumatic stress disorder are discussed, and common characteristics of malingered posttraumatic stress disorder are described. A multimodal approach is described for evaluating posttraumatic stress disorder, including interview techniques, collection of collateral data, and psychometric and physiologic testing, that should allow clinicians to distinguish

between those patients who are truly suffering from posttraumatic disorder and those who are malingering the illness.

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<http://www.ncbi.nlm.nih.gov/pubmed/25851164>

Am J Ind Med. 2015 May;58(5):483-93. doi: 10.1002/ajim.22446.

**Chronic probable PTSD in police responders in the world trade center health registry ten to eleven years after 9/11.**

Cone JE, Li J, Kornblith E, Gocheva V, Stellman SD, Shaikh A, Schwarzer R, Bowler RM

**BACKGROUND:**

Police enrolled in the World Trade Center Health Registry (WTCHR) demonstrated increased probable posttraumatic stress disorder (PTSD) after the terrorist attack of 9/11/2001.

**METHODS:**

Police enrollees without pre-9/11 PTSD were studied. Probable PTSD was assessed by Posttraumatic Stress Check List (PCL). Risk factors for chronic, new onset or resolved PTSD were assessed using multinomial logistic regression.

**RESULTS:**

Half of police with probable PTSD in 2003-2007 continued to have probable PTSD in 2011-2012. Women had higher prevalence of PTSD than men (15.5% vs. 10.3%,  $P = 0.008$ ). Risk factors for chronic PTSD included decreased social support, unemployment, 2+ life stressors in last 12 months, 2+ life-threatening events since 9/11, 2+ injuries during the 9/11 attacks, and unmet mental health needs.

**CONCLUSION:**

Police responders to the WTC attacks continue to bear a high mental health burden. Improved early access to mental health treatment for police exposed to disasters may be needed. Am. J. Ind. Med. 58:483-493, 2015. © 2015 Wiley Periodicals, Inc.

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<http://www.ncbi.nlm.nih.gov/pubmed/25850967>

Psychiatry Res. 2015 Mar 28. pii: S0165-1781(15)00143-2. doi: 10.1016/j.psychres.2015.02.019. [Epub ahead of print]

**An empirical investigation of suicide schemas in individuals with Posttraumatic Stress Disorder.**

Panagioti M, Gooding PA, Pratt D, Tarrier N

Posttraumatic Stress Disorder (PTSD) has been strongly associated with suicidality. Despite the growing evidence suggesting that suicidality is heightened by the presence of an elaborated suicide schema, investigations of suicide schemas are sparse. Using novel methodologies, this study aimed to compare the suicide schema of PTSD individuals with and without suicidal ideation in the past year. Fifty-six participants with a diagnosis of PTSD (confirmed via the Clinician Administered PTSD Scale) completed questionnaires to assess suicidality, depressive severity and hopelessness. A series of direct and indirect cognitive tasks were used to assess suicide schemas. The pathfinder technique was employed to construct graphical representations of the groups' suicide schemas. The suicidal group reported significantly more severe PTSD symptoms, depressive symptoms, hopelessness and suicidality. The suicide schema of the suicidal group was significantly more extensive compared to the non-suicidal group even after taking into account in the analyses group differences in clinical measures. Moreover, the suicide schemas of the two groups were qualitatively distinct from each other. These findings provide support for contemporary theories of suicide which view suicide schemas as an important indicator of suicide risk. The investigation of schema constructs opens a new avenue of research for understanding suicide. Copyright © 2015 Elsevier Ireland Ltd. All rights reserved.

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<http://www.ncbi.nlm.nih.gov/pubmed/25849968>

J Clin Exp Neuropsychol. 2015 Apr 7:1-13. [Epub ahead of print]

### **Examination of the Mild Brain Injury Atypical Symptom Scale and the Validity-10 Scale to detect symptom exaggeration in US military service members.**

Lange RT, Brickell TA, French LM

#### **OBJECTIVE:**

The purpose of this study was to examine the clinical utility of two validity scales designed for use with the Neurobehavioral Symptom Inventory (NSI) and the PTSD Checklist-Civilian Version (PCL-C); the Mild Brain Injury Atypical Symptoms Scale (mBIAS) and Validity-10 scale.

#### **METHOD:**

Participants were 63 U.S. military service members (age: M = 31.9 years, SD = 12.5; 90.5% male) who sustained a mild traumatic brain injury (MTBI) and were prospectively enrolled from Walter Reed National Military Medical Center. Participants were divided into two groups based on the validity scales of the Minnesota Multiphasic Personality Inventory-2 Restructured Form (MMPI-2-RF): (a) symptom validity test (SVT)-Fail (n = 24) and (b) SVT-Pass (n = 39). Participants were evaluated on average 19.4 months postinjury (SD = 27.6).



## RESULTS:

Participants in the SVT-Fail group had significantly higher scores ( $p < .05$ ) on the mBIAS ( $d = 0.85$ ), Validity-10 ( $d = 1.89$ ), NSI ( $d = 2.23$ ), and PCL-C ( $d = 2.47$ ), and the vast majority of the MMPI-2-RF scales ( $d = 0.69$  to  $d = 2.47$ ). Sensitivity, specificity, and predictive power values were calculated across the range of mBIAS and Validity-10 scores to determine the optimal cutoff to detect symptom exaggeration. For the mBIAS, a cutoff score of  $\geq 8$  was considered optimal, which resulted in low sensitivity (.17), high specificity (1.0), high positive predictive power (1.0), and moderate negative predictive power (.69). For the Validity-10 scale, a cutoff score of  $\geq 13$  was considered optimal, which resulted in moderate-high sensitivity (.63), high specificity (.97), and high positive (.93) and negative predictive power (.83).

## CONCLUSION:

These findings provide strong support for the use of the Validity-10 as a tool to screen for symptom exaggeration when administering the NSI and PCL-C. The mBIAS, however, was not a reliable tool for this purpose and failed to identify the vast majority of people who exaggerated symptoms.

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<http://www.ncbi.nlm.nih.gov/pubmed/25845891>

J Clin Sleep Med. 2015 Mar 16. pii: jc-00065-15. [Epub ahead of print]

## **Chronotype and Improved Sleep Efficiency Independently Predict Depressive Symptom Reduction after Group Cognitive Behavioral Therapy for Insomnia.**

Bei B, Ong JC, Rajaratnam SM, Manber R

### STUDY OBJECTIVES:

Cognitive behavioral therapy for insomnia (CBT-I) has been shown to improve both sleep and depressive symptoms, but predictors of depression outcome following CBT-I have not been well examined. This study investigated how chronotype (i.e., morningness- eveningness trait) and changes in sleep efficiency (SE) were related to changes in depressive symptoms among recipients of CBT-I.

### METHODS:

Included were 419 adult insomnia outpatients from a sleep disorders clinic (43.20% males, age  $M \pm SD = 48.14 \pm 14.02$ ). All participants completed the Composite Scale of Morningness and attended a 6-session group CBT-I up to the second last session. SE was extracted from sleep diary; depressive symptoms were assessed using the Beck Depression Inventory (BDI) prior to (Baseline), and at the end (End) of intervention.

## RESULTS:

Multilevel structural equation modeling revealed that from Baseline to End, SE increased and BDI decreased significantly. Controlling for age, sex, BDI, and SE at Baseline, stronger evening chronotype and less improvement in SE significantly and uniquely predicted less reduction in BDI from Baseline to End. Chronotype did not predict improvement in SE.

## CONCLUSIONS:

In an insomnia outpatient sample, SE and depressive symptoms improved significantly after a CBT-I group intervention. All chronotypes benefited from sleep improvement, but those with greater eveningness and/or less sleep improvement experienced less reduction in depressive symptom severity. This suggests that evening preference and insomnia symptoms may have distinct relationships with mood, raising the possibility that the effect of CBT-I on depressive symptoms could be enhanced by assessing and addressing circadian factors.

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<http://www.ncbi.nlm.nih.gov/pubmed/25846534>

Chest. 2015 Apr 1;147(4):1179-92. doi: 10.1378/chest.14-1617.

## **The pathophysiology of insomnia.**

Levenson JC, Kay DB, Buysse DJ.

Insomnia disorder is characterized by chronic dissatisfaction with sleep quantity or quality that is associated with difficulty falling asleep, frequent nighttime awakenings with difficulty returning to sleep, and/or awakening earlier in the morning than desired. Although progress has been made in our understanding of the nature, etiology, and pathophysiology of insomnia, there is still no universally accepted model. Greater understanding of the pathophysiology of insomnia may provide important information regarding how, and under what conditions, the disorder develops and is maintained as well as potential targets for prevention and treatment. The aims of this report are (1) to summarize current knowledge on the pathophysiology of insomnia and (2) to present a model of the pathophysiology of insomnia that considers evidence from various domains of research. Working within several models of insomnia, evidence for the pathophysiology of the disorder is presented across levels of analysis, from genetic to molecular and cellular mechanisms, neural circuitry, physiologic mechanisms, sleep behavior, and self-report. We discuss the role of hyperarousal as an overarching theme that guides our conceptualization of insomnia. Finally, we propose a model of the pathophysiology of insomnia that integrates the various types of evidence presented.

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<http://www.ncbi.nlm.nih.gov/pubmed/25847589>

J Sex Med. 2015 Apr 6. doi: 10.1111/jsm.12856. [Epub ahead of print]

### **PTSD and Sexual Dysfunction in Men and Women.**

Yehuda R, Lehrner A, Rosenbaum TY

#### **INTRODUCTION:**

Difficulties in sexual desire and function often occur in persons with posttraumatic stress disorder (PTSD), but many questions remain regarding the mechanisms underlying the occurrence of sexual problems in PTSD.

#### **AIM:**

The aim of this review was to present a model of sexual dysfunction in PTSD underpinned by an inability to regulate and redirect the physiological arousal needed for healthy sexual function away from aversive hyperarousal and intrusive memories.

#### **METHOD:**

A literature review pertaining to PTSD and sexual function was conducted. Evidence for the comorbidity of sexual dysfunction and PTSD is presented, and biological and psychological mechanisms that may underlie this co-occurrence are proposed.

#### **MAIN OUTCOME MEASURES:**

This manuscript presents evidence of sexual dysfunction in conjunction with PTSD, and of the neurobiology and neuroendocrinology of PTSD and sexual function.

#### **RESULTS:**

Sexual dysfunction following trauma exposure may be mediated by PTSD-related biological, cognitive, and affective processes.

#### **CONCLUSIONS:**

The treatment of PTSD must include attention to sexual dysfunction and vice versa. Yehuda R, Lehrner A, and Rosenbaum TY. PTSD and sexual dysfunction in men and women. © 2015 International Society for Sexual Medicine.

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<http://www.ncbi.nlm.nih.gov/pubmed/25847536>

Psychol Sci. 2015 Apr 6. pii: 0956797615569889. [Epub ahead of print]

### **Failing to Forget: Inhibitory-Control Deficits Compromise Memory Suppression in Posttraumatic Stress Disorder.**

Catarino A, Küpper CS, Werner-Seidler A, Dalgleish T, Anderson MC

Most people have experienced distressing events that they would rather forget. Although memories of such events become less intrusive with time for the majority of people, those with posttraumatic stress disorder (PTSD) are afflicted by vivid, recurrent memories of their trauma. Often triggered by reminders in the daily environment, these memories can cause severe distress and impairment. We propose that difficulties with intrusive memories in PTSD arise in part from a deficit in engaging inhibitory control to suppress episodic retrieval. We tested this hypothesis by adapting the think/no-think paradigm to investigate voluntary memory suppression of aversive scenes cued by naturalistic reminders. Retrieval suppression was compromised significantly in PTSD patients, compared with trauma-exposed control participants. Furthermore, patients with the largest deficits in suppression-induced forgetting were also those with the most severe PTSD symptoms. These results raise the possibility that prefrontal mechanisms supporting inhibitory control over memory are impaired in PTSD.  
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<http://www.ncbi.nlm.nih.gov/pubmed/25845036>

J Clin Psychiatry. 2015 Mar 3. [Epub ahead of print]

**Antipsychotic prescriptions in Iraq and Afghanistan veterans with posttraumatic stress disorder in Department of Veterans Affairs healthcare, 2007-2012.**

Cohen BE<sup>1</sup>, Shi Y, Neylan TC, Maguen S, Seal KH

**OBJECTIVE:**

Antipsychotic medications have been increasingly prescribed for off-label uses, including treatment of posttraumatic stress disorder (PTSD). Given limited knowledge about their use in returning Iraq and Afghanistan veterans with PTSD, we explored rates of antipsychotic use in this population and correlations with sociodemographic, military service, and psychiatric factors.

**METHOD:**

Iraq and Afghanistan veterans with a PTSD diagnosis based on ICD-9-CM codes enrolled in Veterans Administration care between January 1, 2007, and September 30, 2011, were followed through September 30, 2012. Patients with a comorbid diagnosis of schizophrenia or bipolar disorder were excluded. Poisson regression models evaluated factors associated with prescriptions for antipsychotic versus other psychiatric medications (primary outcome).

**RESULTS:**

The mean age of our study population was 29.3 years, and 9.4% were women. Of 186,460 veterans with PTSD diagnoses examined, 19.9% received no psychiatric medications, and the

remainder received psychiatric medications that excluded (61.2%) or included (18.9%) antipsychotics. In adjusted models, several factors were independently associated with antipsychotic use, including male sex (adjusted relative risk = 1.25; 95% CI, 1.20-1.30) and enlisted rank (1.44; 95% CI, 1.35-1.53). Increased likelihood of antipsychotic prescribing was associated with suicidal ideation (4.77; 95% CI, 4.59-4.95) and comorbid psychiatric diagnoses including personality disorder (4.27; 95% CI, 4.09-4.46), drug use disorder (3.56; 95% CI, 3.43-3.69), and alcohol use disorder (2.75; 95% CI, 2.65-2.84).

#### CONCLUSIONS:

A substantial minority of Iraq and Afghanistan veterans diagnosed with PTSD received antipsychotics. Male veterans, those of enlisted rank, and those with suicidal ideation and psychiatric comorbidities were more likely to receive antipsychotics than other types of psychiatric medications. Providers should be cautious about antipsychotic use, given their known metabolic risks and questionable benefits for PTSD.

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<http://www.healio.com/psychiatry/journals/jpn/2015-4-53-4/%7Bb52e68fb-898e-4ac0-a05b-f9f4b391620e%7D/suicide-assessment-and-action-for-women-veterans>

#### **Suicide Assessment and Action for Women Veterans.**

Patricia L. Conard, PhD, RN; Myrna L. Armstrong, EdD, RN, FAAN; Cathy Young, DNSc, FNP-BC, FAANP, FAAN; La Micha Hogan, MSN, RN, FNP-BC

Journal of Psychosocial Nursing and Mental Health Services

April 2015 - Volume 53 · Issue 4: 33-42

DOI: 10.3928/02793695-20150320-01

Many deployed women Veterans, as described in a previous article, have experienced similar combat exposure as their male counterparts in wars since 1990. Upon reintegration, many Veterans visit civilian health facilities with behavioral health issues, sometimes voicing and/or attempting suicide. Effective nursing assessment and actions are needed to specifically care for this unique population. Any suicide variables (e.g., ideation, attempts, completed) are concerning; therefore, all women Veterans from the Vietnam, Gulf I, Iraq, and Afghanistan wars should be assessed. The first priority is always patient safety. Timely and frequent screening for a variety of risk factors, documented for both men and women Veterans, and women specifically, are important. Symptomology may not become evident for 3 to 15 months into reintegration. Applicable dialogue can recognize changing thoughts, judgment, and behavior patterns. Health promotion efforts, interventions, and resourceful referrals are provided.

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<http://onlinelibrary.wiley.com/doi/10.1002/jts.21999/abstract>

**Trauma-Related Guilt: Conceptual Development and Relationship With Posttraumatic Stress and Depressive Symptoms.**

Browne, K. C., Trim, R. S., Myers, U. S. and Norman, S. B.

Journal of Traumatic Stress

Volume 28, Issue 2, pages 134–141, April 2015

DOI: 10.1002/jts.21999

Despite high prevalence and concerning associated problems, little effort has been made to conceptualize the construct of posttraumatic guilt. This investigation examined the theoretical model of trauma-related guilt proposed by Kubany and Watson (2003). This model hypothesizes that emotional and physical distress related to trauma memories partially mediates the relationship between guilt cognitions and posttraumatic guilt. Using path analysis, this investigation (a) empirically evaluated relationships hypothesized in Kubany and Watson's model, and (b) extended this conceptualization by evaluating models whereby guilt cognitions, distress, and posttraumatic guilt were related to posttraumatic stress disorder (PTSD) symptoms depression symptom severity. Participants were male U.S. Iraq and Afghanistan veterans (N = 149). Results yielded a significant indirect effect from guilt cognitions to posttraumatic guilt via distress, providing support for Kubany and Watson's model ( $\beta = .14$ ). Findings suggested distress may be the strongest correlate of PTSD symptoms ( $\beta = .47$ ) and depression symptoms ( $\beta = .40$ ), and that guilt cognitions may serve to intensify the relationship between distress and posttraumatic psychopathology. Research is needed to evaluate whether distress specific to guilt cognitions operates differentially on posttraumatic guilt when compared to distress more broadly related to trauma memories.

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<http://psycnet.apa.org/journals/scp/2/1/68/>

**Empirical and ethical considerations for addressing spirituality among veterans and other military populations at risk for suicide.**

Currier, Joseph M.; Kuhlman, Shane; Smith, Phillip N.

Spirituality in Clinical Practice, Vol 2(1), Mar 2015, 68-73

<http://dx.doi.org/10.1037/scp0000057>

Given troubling suicide rates among military veterans and active duty personnel, there is increasing interest in the possible clinical utility of incorporating spirituality in prevention efforts. However, there has been limited empirical research and discussion of ethical challenges involved in integrating spirituality into preventive and treatment interventions with military

populations. As such, the purpose of this commentary is to (a) briefly summarize supporting evidence for addressing spirituality in preventive and treatment interventions with military populations and (b) introduce several ethical concerns that providers may need to consider as they attempt to attend to spiritual concerns among veterans and other military personnel who might be at risk for prematurely ending their lives. (PsycINFO Database Record (c) 2015 APA, all rights reserved)

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<http://psycnet.apa.org/journals/scp/2/1/61/>

### **The veteran spiritual struggle.**

Kopacz, Marek S.; Connery, April L.

Spirituality in Clinical Practice, Vol 2(1), Mar 2015, 61-67

<http://dx.doi.org/10.1037/scp0000059>

Although a considerable body of literature has been devoted to examining the physical, psychological, and social needs of veterans after their return from deployment, relatively little is known about the spiritual struggles some veterans face. In this article, we review what we know about this spiritual struggle, highlight the relevance of spirituality in clinical practice, and show examples of how a veteran's spiritual struggle may simultaneously present alongside different suicide risk factors. Suggestions for handling this spiritual struggle are then made. (PsycINFO Database Record (c) 2015 APA, all rights reserved)

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<http://psycnet.apa.org/journals/scp/2/1/74/>

### **Living a life worth living: Spirituality and suicide risk in military personnel.**

Bryan, Craig J.; Graham, Eugena; Roberge, Erika

Spirituality in Clinical Practice, Vol 2(1), Mar 2015, 74-78.

<http://dx.doi.org/10.1037/scp0000056>

In the absence of conceptual models that explicitly incorporate protective factors for suicide, research focused on understanding the contributors and causes of suicide among military personnel and veterans has largely overlooked factors that may reduce risk in this population. One proposed protective factor is spirituality, but the mechanisms by which spirituality reduces risk remain unknown. Research suggests that existential aspects of spirituality such as meaning in life and the capacity to forgive oneself for perceived transgressions may reduce risk more so than explicitly religious aspects of spirituality such as belief in a higher power or deity.

Preliminary evidence suggests that interventions and treatments that foster personal meaning and self-compassion in addition to reducing guilt, shame, and self-deprecation can reduce suicidal behavior among military personnel and veterans. Additional research is needed to understand why, how, and for whom spirituality influences suicide risk. (PsycINFO Database Record (c) 2015 APA, all rights reserved)

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<http://psycnet.apa.org/journals/scp/2/1/25/>

### **Validation of the Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being Scale in veterans with PTSD.**

Johnson, Brian D.; Bormann, Jill E.; Glaser, Dale

Spirituality in Clinical Practice, Vol 2(1), Mar 2015, 25-35.

<http://dx.doi.org/10.1037/scp0000052>

The purpose of this study was to examine the factor structure of 2 versions of the Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being (FACIT-Sp) scale in a sample of Veterans diagnosed with posttraumatic stress disorder (PTSD). The FACIT-Sp has 12- and 23-item versions that have been factor analyzed in other populations with mixed factor solutions. Spiritual well-being is of growing interest in military and veteran populations; valid and reliable measures are needed for research with these groups. A sample of 146 Veterans diagnosed with PTSD was selected for this analysis. Confirmatory factor analysis was used to test competing factorial structures for the 12-item FACIT-Sp. Both a 2-factor and 3-factor model were compared. For the 12-item FACIT-Sp, a more plausible model of spiritual well-being was found with the 3-factor model, separating Meaning from Peace and including Faith subscales. The addition of 11 more items in the 23-item FACIT-Sp did not improve model fit to any substantial degree. Therefore, the 12-item FACIT-Sp with a 3- rather than 2-factor solution (e.g., subscales of Peace, Meaning, and Faith) is recommended as the most accurate representation of the spiritual well-being components in this study of veterans with PTSD (PsycINFO Database Record (c) 2015 APA, all rights reserved)

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<http://psycnet.apa.org/journals/scp/2/1/36/>

### **Army chaplains' perceptions about identifying, intervening, and referring soldiers at risk of suicide.**

Ramchand, Rajeev; Ayer, Lynsay; Geyer, Lily; Kofner, Aaron



Spirituality in Clinical Practice, Vol 2(1), Mar 2015, 36-47  
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In U.S. Army policy, chaplains and chaplain assistants (CAs) are explicitly identified as primary gatekeepers; however, research on their perceptions about their roles identifying, caring for, and referring soldiers in suicidal distress is scant. In this study, we estimate perceptions of Army chaplains and CAs in domains relevant to gatekeeping, including intervention efficacy, reluctance to intervene, stigma, and past intervention behavior. We do so using an online survey that was administered to all chaplains and CAs in the Army's Active Component and Reserves in 2012. Response rates ranged from 41% of all chaplains in the Active Component to 19% of chaplains and CAs in the Reserves. Almost half of all chaplains and CAs thought they could use more suicide prevention training. Although chaplains reported greater perceived ability to intervene with individuals at risk for suicide relative to civilian samples, they also reported more reluctance to intervene. This reluctance may be explained in part by high reports of stigma regarding mental health treatment. These findings suggest that the Army should implement specific suicide prevention training for chaplains and CAs that focuses on providing acute behavioral health treatment, reducing mental health stigma, and encouraging chaplains to collaborate with other behavioral health resources. (PsycINFO Database Record (c) 2015 APA, all rights reserved)

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<http://www.sciencedirect.com/science/article/pii/S2352250X15001372>

### **Facilitating emotional processing in depression: The application of exposure principles.**

Adele M. Hayes

Current Opinion in Psychology  
Available online 4 April 2015  
doi:10.1016/j.copsyc.2015.03.032

Even with the best psychosocial and pharmacological treatments for unipolar depression, relapse is a serious problem. One path to improve treatments for depression is to target fundamental processes that go awry in depression and to enhance new learning by adapting principles and strategies from exposure-based treatments for anxiety and fear-related disorders. I describe basic principles of exposure and emotional processing and illustrate with Exposure-Based Cognitive Therapy (EBCT) for depression, how these principles can be applied, with some adaptation, to address the therapeutic targets of depression. Clinical trial data of EBCT suggest that this application might be fruitful and that the process of change might be similar to that in exposure-based treatments for anxiety and trauma-related disorders.

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**Examination of the Mild Brain Injury Atypical Symptom Scale and the Validity-10 Scale to detect symptom exaggeration in US military service members.**

Rael T. Lange , Tracey A. Brickell , Louis M. French

Journal of Clinical and Experimental Neuropsychology

Published online: 07 Apr 2015

DOI:10.1080/13803395.2015.1013021

**Objective:**

The purpose of this study was to examine the clinical utility of two validity scales designed for use with the Neurobehavioral Symptom Inventory (NSI) and the PTSD Checklist–Civilian Version (PCL–C); the Mild Brain Injury Atypical Symptoms Scale (mBIAS) and Validity-10 scale.

**Method:**

Participants were 63 U.S. military service members (age:  $M = 31.9$  years,  $SD = 12.5$ ; 90.5% male) who sustained a mild traumatic brain injury (MTBI) and were prospectively enrolled from Walter Reed National Military Medical Center. Participants were divided into two groups based on the validity scales of the Minnesota Multiphasic Personality Inventory–2 Restructured Form (MMPI–2–RF): (a) symptom validity test (SVT)-Fail ( $n = 24$ ) and (b) SVT-Pass ( $n = 39$ ). Participants were evaluated on average 19.4 months postinjury ( $SD = 27.6$ ).

**Results:**

Participants in the SVT-Fail group had significantly higher scores ( $p < .05$ ) on the mBIAS ( $d = 0.85$ ), Validity-10 ( $d = 1.89$ ), NSI ( $d = 2.23$ ), and PCL–C ( $d = 2.47$ ), and the vast majority of the MMPI–2–RF scales ( $d = 0.69$  to  $d = 2.47$ ). Sensitivity, specificity, and predictive power values were calculated across the range of mBIAS and Validity-10 scores to determine the optimal cutoff to detect symptom exaggeration. For the mBIAS, a cutoff score of  $\geq 8$  was considered optimal, which resulted in low sensitivity (.17), high specificity (1.0), high positive predictive power (1.0), and moderate negative predictive power (.69). For the Validity-10 scale, a cutoff score of  $\geq 13$  was considered optimal, which resulted in moderate–high sensitivity (.63), high specificity (.97), and high positive (.93) and negative predictive power (.83).

**Conclusion:**

These findings provide strong support for the use of the Validity-10 as a tool to screen for symptom exaggeration when administering the NSI and PCL–C. The mBIAS, however, was not a reliable tool for this purpose and failed to identify the vast majority of people who exaggerated symptoms.

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<http://www.tandfonline.com/doi/abs/10.1080/00140139.2015.1036790>

## **Acute Effects of Caffeine Supplementation on Cortical Arousal, Anxiety, Physiological Response and Marksmanship in Close Quarter Combat.**

Vicente Javier Clemente-Suarez , José Juan Robles-Pérez

Ergonomics

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DOI:10.1080/00140139.2015.1036790

Previous studies have researched the ergogenic effect of caffeine in different shooting actions, but none of them in a stressful combat action. This study aimed to analyse the effect of a dose of 400 mg of caffeine monohydrate on the psycho-physiological response and marksmanship of soldiers in close quarter combat. We analysed the heart rate, blood lactate concentration, cortical arousal, state anxiety and marksmanship of 19 soldiers in the Spanish Army ( $38.9 \pm 4.1$  years;  $177.4 \pm 5.3$  cm;  $78.8 \pm 7.6$  kg) before and after a close quarter combat simulation in a double-blind procedure. Caffeine intake did not improve shooting performance in close quarter combat; however, it increased cognitive and somatic anxiety levels.

**Practitioner Summary:** According to the previous literature, the ingestion of caffeine could help soldiers in operations conducted in sleep deprivation conditions, but in stressful combat situations it does not improve the marksmanship of soldiers.

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### **Links of Interest**

Can supplements improve your mood?

[http://www.fortcampbellcourier.com/community/article\\_6b14f1ec-de55-11e4-9aec-538af662c051.html](http://www.fortcampbellcourier.com/community/article_6b14f1ec-de55-11e4-9aec-538af662c051.html)

Is eye-movement therapy an answer for PTSD?

<http://www.delawareonline.com/story/news/local/fort-campbell/2015/04/05/eye-movement-therapy-answer-ptsd/25268157/>

Family Stress May Figure in Soldiers' Suicide Risk

[http://www.nlm.nih.gov/medlineplus/news/fullstory\\_151960.html](http://www.nlm.nih.gov/medlineplus/news/fullstory_151960.html)

Former military child cares for military children

<http://www.amc.af.mil/news/story.asp?id=123444596>

VA Researching LED Treatments to Battle Gulf War Illness

<http://www.photonics.com/Article.aspx?AID=57349>

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